



ISSN No. 0971-9962

Volume

27

Number

3-4

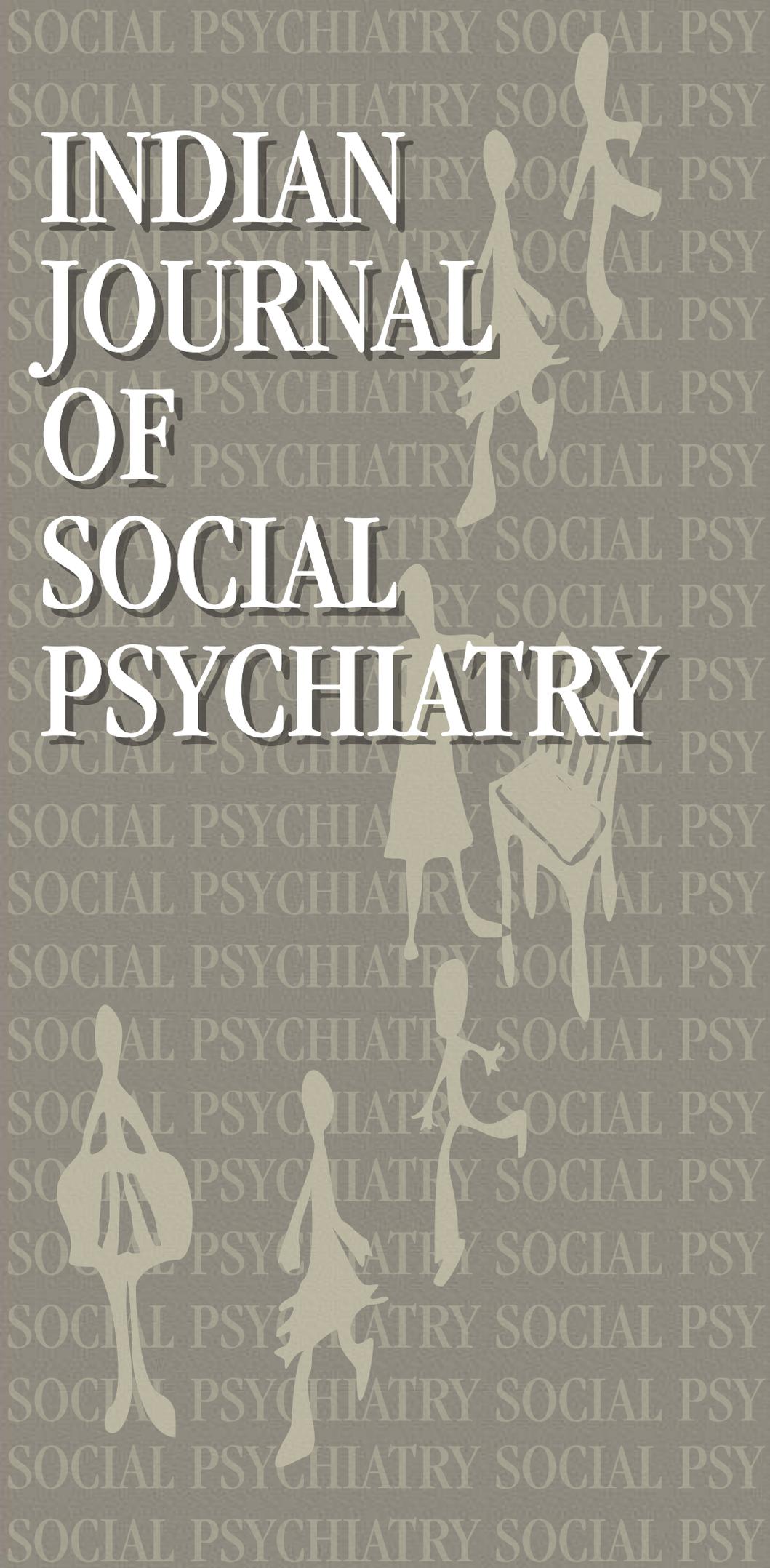
Year

2011

INDIAN JOURNAL OF SOCIAL PSYCHIATRY

Official Publication of:

**INDIAN
ASSOCIATION
FOR
SOCIAL
PSYCHIATRY**



With best compliments from

VALPARIN[®] CHRONO
Sodium Valproate and Valproic Acid

VALPARIN[®] SYRUP • EC
Sodium Valproate



DEPAKOTE[®]
Divalproex Sodium Delayed Release Tablets 250 mg & 500 mg

DEPAKOTE[®] XR
Divalproex Sodium Extended Release Tablets 250 mg & 500 mg

Vinlep[™]
Oxcarbazepine 150, 300 & 600 mg tablets

+Frisium[®]
clonazepam

Rejusite[™]
(Pregabalin SR 75mg + Methylcobalamin 1500mcg)

Aculan[™] MD
Clonazepam Mouth Dissolving Tablets 2.5 / 5 / 7.5 / 10 mg

Good nights. Great mornings!
Stilnoct[®]
Zolpidem Tartrate Extended Release 6.25 mg / 12.5 mg

Solian[®]
Amlodipine 5/10/20/30/40mg

Elorpax[™]
Escitalopram Tablets 5 / 10 / 20 mg

SANOFI



SANOFI-SYNTHELABO (INDIA) LIMITED, (A Sanofi Group Company),
54-A, Sir Mathuradas VasANJI Road, Andheri (East), Mumbai 400 093.



INDIAN JOURNAL OF SOCIAL PSYCHIATRY

(Official Publication of Indian Association for Social Psychiatry)

ISSN 0971-9962

Vol.: 27

Number: 3-4

2011

Editor

Vinod K Sinha, MD, DPM

Associate Editor

D Ram, MD

Editorial Board

S Haque Nizamie, MD, DPM, Ranchi
S K Chaturvedi, MD, MRC Psych, Bangalore
Anisha Shah, Ph.D., Bangalore
Prabha Chandra, MD, Bangalore
N Chakrabarti, MD, U.K.
Basudeb Das, MD, Ranchi
Alka Nizamie, Ph.D, Ranchi
Sanjay K Munda, MD, DPM, Ranchi

Nishant Goyal, MD, DPM, Ranchi
Anupam Thakur, MD, U.K.
Samir K Praharaj, MD, DPM, Manipal
Pushpal Desarkar, MD, DPM, U.K.
Sujit Sarkhel, MD, DPM, Ranchi
Baxi Neeraj Prasad Sinha, MD, DPM, DNB, U.K.
Amlan K Jana, MD, DPM, Kolkata
Arvind Nongpiur, MD, DPM, Ranchi

Editorial Assistants

Nirmalya Chakraborty, RN, Ranchi
Hariom Pachori, MSc (Stats.), UGC NET, Ranchi
Md. Aleem Siddiqui, MD, DPM, Lucknow

Kainaz N. Dotivala, MPhil. (M&SP), Delhi
P Mukherjee, DMS, Ranchi
Amrit Pattojoshi, MD, DPM, Bhubneshwar

Technical Assistants

Md. Taslim Ansari

Md. Habib Ansari

Office Bearers, 2011-2012

President

Prof. Roy Abraham Kallivayalil

President-elect

Prof. Rakesh K Chadda

Vice-President

Dr. J K Trivedi

Secretary General

Prof. B S Chavan

Treasurer

Dr. Adarsh Kohli

Editor

Prof. Vinod K. Sinha

Committee Chairpersons

Dr. G Gopalakrishnan, Election Committee
Dr JK Trivedi, Constitution and By-Laws Committee
Dr K Roy Abraham, Programme Committee
Dr SK Khandelwal, Awards Committee
Dr Joseph Varghese P, Membership Committee
Dr Indira Sharma, CME Committee
Dr S Malhotra, Ethics Committee

Council Members

Dr Rajiv Gupta
Dr MS Bhatia
Dr Rajesh Sagar
Dr SK Khandelwal
Dr C Ramasubramaniam
Dr Tushar Jagawat
Dr UC Garg
Dr Sudhir Bhav
Dr. Mamta Sood
Dr Varghese Punnoose P
Dr Joseph Varghese P
Dr. Indira Sharma
Dr. R C Jiloha (Ex Officio)

Editorial Office

Central Institute of Psychiatry
Ranchi - 834 006
e-mail: ijsp09@gmail.com

INDIAN JOURNAL OF SOCIAL PSYCHIATRY

Vol 27(3-4), 2011

CONTENTS

Time to Leave.....	7 1
<i>Vinod K. Sinha</i>	
Editorial	
Mental Health Care Act: A Critical Appraisal.....	7 2
<i>Vinod K. Sinha</i>	
Review Articles	
Mental Health Issues For Tomorrow	7 5
<i>S. Haque Nizamie, Sai Krishna Tikka</i>	
Self-Defeating Behaviour Patterns: Clinical Implications.....	8 2
<i>Abdul Salam. K. P, Manjula M.</i>	
Telepsychiatry: A Feasible Option For Primary Care	8 9
<i>Savita Malhotra</i>	
Psychoanalysis: Recent Developments	9 6
<i>Nizammudin Parvez, Vidya K L, S Haque Nizamie</i>	
Resistant Depression: Management Strategies	10 5
<i>Alur Manjappa Adarsha, Basudeb Das</i>	
Research Articles	
Body Image, Personality, Psychiatric Morbidity and Substance Dependence in Men with Tattoos.....	11 9
<i>Parnasha Gupta, Sadhan Dasgupta</i>	
Use of Stories in Counselling and Psychotherapy: An Indian Experience	12 5
<i>Dharitri Ramaprasad, Lata Hemchand</i>	
A Community-Based Exploratory Study examining the Coping Strategies employed by Family and Community members for Individuals with Substance Dependence.....	13 2
<i>BS Chavan, Nitin Gupta, Tanuja Kaushal</i>	
Pattern of Disability and Utilization of Disability Certificate.	14 0
<i>Jaspreet Kaur, Bir Singh Chavan, Priti Arun, Chandrabala, Rupinder Kaur</i>	
Aggression, Suicidal Tendencies and High Risk Sexual Behaviour among Persons with Substance Dependence.....	14 6
<i>Upasana Baruah, R Dhanasekara Pandian</i>	
Comparative Assessment of Drug Compliance Behaviour, Severity of illness and Quality of Life among Psychiatric Patients attending Community Mental Health Camps and Outpatient Department of a Tertiary Psychiatric Hospital	15 3
<i>P N Suresh Kumar, Roshan Bijlee, Roy Abraham Kallivayalil</i>	
Gender and Quality of Life in Persons with Schizophrenia and its Relationship with Perceived Social Support	16 0
<i>Sonia Pereira Deuri, Kalpana Sarathy, Sobhana H, Arif Ali</i>	
Psychiatric Referral characteristics at a Tertiary Care Hospital: A fresh appraisal	16 5
<i>Rajesh Rastogi, Madhusudan, Kuldip Kumar, Pankaj Verma, Abhinit Kumar, Manushri Gupta</i>	
Cognitive Error, Negative Automatic Thought, Metacognition and Mindfulness in Depression: A Controlled Study.....	17 0
<i>Madhumita Bhattacharyya, D. Ram</i>	
Interaction of Life Events, Social Support, Coping Strategies and Quality of Life in Attempted Suicide: A Case Control Study.....	17 5
<i>P N Suresh Kumar, Biju George</i>	
Marital Commitment and Marital Quality in spouses of patients with Psychiatric Disorders	18 4
<i>Priya Saxena, Anisha Shah</i>	
Brief Communication	
A Study on Effectiveness of Structured Activity Schedule on Negative Symptom of Patients with Schizophrenia	19 2
<i>Arunjyoti Baruah, K. Reddemma, Nurnahar Ahmed, Srinivasan A</i>	
Socio-Demographic and Clinical Profile of Koro Cases: Report from a Village of West Bengal.....	19 6
<i>Arabinda Brahma</i>	
Movie Review	
Bol.....	20 0
<i>Roshan V Khanande, S Haque Nizamie</i>	
Book Review	
Positive Psychology: The Scientific and Practical Explorations of Human Strengths.....	20 2
<i>Arvind Nongpiur</i>	
Memoir	
Life With Mental Illness	20 4
Instructions for Author.....	20 5
Obituary.....	20 7

TIME TO LEAVE.....

Vinod K. Sinha¹

Indian Journal of Social Psychiatry (IJSP) has a long history. Since 1984 it has made a significant contribution to social science research, especially in relation to the study of social issues. The journal had its editorial resources across India, Australia and UK. Majority of its editors were selected from academia.

It is my privilege to act as the editor of the journal for the last eight years. I did enjoy the role with minor aberrant. I learnt a lot during this period. A journals success entirely depends on team work- assistant editor, editorial board, authors and reviewers. I had been very fortunate to have Daya Ram, as an Associate Editor who has been instrumental in checking thoroughly the methodology and statistics. Editorial board was full of young talented, overworked members: Anupam Thakur, Pushpal Desarkar, Nandini Chakraborty, Anisha Shah, Basudeb Das, Sujeet Sarkhel and Nishant Goyal. Anisha Shah's and Nandini Chakraborty's contribution to the efficient running of the journal over last eight years is well recognized and is very much appreciated.

I am honoured to have worked with an outstanding editorial team: S haque Nizamie, SK Chaturvedi, Alka Nizamie, Prabha Chandra, Sanjay K Munda, Samir K Prahraj, Baxi Neeraj Prasad Sinha, Amlan K Jana, Arvind Nongpiur, Nirmalya Chakraborty, Kainaz Dotivala, P Mukherjee and Hariom Pachori. Each of the ditorial board members and editorial assistants has worked tirelessly to provide constructive, helpful and thoughtful decisions on the manuscripts. At times members were asked to review more than six manuscripts a year. The turnaround times for some have been as short as one week (at times 24 hours.)

Authors are the main resource for a journal. IJSP was being published once a year with numbers 1-4 being pooled in one issue upto year 2004. With the help of Indian Association for Social Psychiatry and late Prof. Anil Malhotra in particular we ventured in bringing out two issues a year of the journal from 2005. I am sorry to state that IJSP receives very few manuscripts and often editor and editorial team has to work harder in order to obtain a worthy manuscript. Still we very much appreciate the scholars who submitted their work to us. In order to keep the quality few manuscripts were rejected which can be very distressing. Regarding rejected manuscripts we hope

that editorial boards decisions have not only been fair but have also been constructive and led to the development of stronger and more publishable work.

Finally, I would like to give my very best wishes to my successor Debashish Basu who takes over the editorship of the Journal in the year 2012. I am sure he would do a superb job.

-
1. **Dr. Vinod K. Sinha**, MD, DPM, Director Professor of Psychiatry, Central Institute of Psychiatry, Kanke, Ranchi-834006. E-mail : vinod_sinhacip@yahoo.co.in
-

MENTAL HEALTH CARE ACT- A CRITICAL APPRAISAL

INTRODUCTION

Mental health legislation is important for protecting the rights and dignity of persons with mental disorders and in order to develop accessible and effective mental health services. Often people with mental disorders are exposed to wide variety of human rights violations. It protects mentally ill patients from harsh treatments, unnecessary institutionalization and inhumane handling as inpatients. It provides guidelines for a country to practice mental health within a framework which is laid down by the policy makers (Chaudhury, 2011). Mental Health Act (MHA) 1987 was enacted by the Indian parliament in May, 1987 which finally came into force in April, 1993 across nation. It took around 37 years from its first draft to make it as an act. UN (United Nation) convention on Rights of People with Disability (UNCRPD, 2006) was adopted in December, 2006 at Beijing and India has been one of the signatory. Thus it becomes a binding for each signatory state to revise all legislations related to persons with disabilities. The process of amendment of the MHA, 1987 was initiated by the Government of India in 2010 which would repeal MHA, 1987. The draft of new Mental Health Care Act is available at the Ministry of Health and Family Welfare Website (The Mental Health Care Bill, 2011).

The proposed new act includes 9 chapters and has 67 sections. The chapter on visitors, inspection and inquisition of properties have been removed. Instead a full chapter on rights of persons with mental illness has been included.

New sections on competence, advance directives, nominated representative and mental health review commission have been added (Chandrashekhar, 2011). There has been new definition of mental illness besides do's and don'ts for admission and treatment. Main features of the proposed Mental Health Care Bill (2011) are as follows with some critical comments:

1. **Nomenclature of the Act:** Instead of MHA, it would be known as Mental Health Care Act.
2. **Statement of Objects and Reasons:** The proposed act mentions that mentally ill are vulnerable, families bear the burden; environment has to be conducive for recovery and participations in the society. There

is a need for setting up a support system to assist patients to make decisions regarding treatment and other matters. It also mandates public mental health services; the act makes it obligatory for the Government to make sufficient provision for arranging services required by person of mental illness and integrate mental health in general health care.

MHA, 1987 has been criticized for overlooking this aspect. The objects and reasons should be realistic. Majority of districts in various states have no facility at all and the treatment gap is too large (WHO, 2008).

3. **Advance Directives:** Every person, whether they have been diagnosed as having a mental illness or not has a right to make a written statement referred to as an Advanced Directive, specifying the way the person wishes to be cared for and treated for an ensuing mental illness. It should be made in writing on a plane paper with the persons' signature or thumb impression on it. It would also be signed by a medical practitioner certifying that the person is competent at the time of writing the advanced directive. In general population how many of us make will during our lifetime? This section may be useful for the western world but not for majority of the patients with mental illness. And are we really prepared for advance directive? This section may be misused or underutilised.
4. **Nominated Representative:** Any person with mental illness who has attained the age of 18 years has the right to appoint a Nominated Representative whose duty will be to support the person with mental illness in making treatment decisions and has a right to information on diagnosis and treatment, right to be involved in discharge planning, right to apply to the mental health facility for admission, right to apply to the district panel of the Mental Health Review Commission (MHRC) on behalf of the person with mental illness for discharge, right to apply to the

district panel of the MHRC against violation of the rights of the person with mental illness in mental health facilities and right to give consent for research under certain circumstances. These rights may breach confidentiality of patients and may lead to violation of their rights.

- 5. Definition of Mental Illness:** It has been defined as disorder of mood, thought, perception, orientation or memory which causes significant distress to a person or impairs persons behaviour, judgement and ability to recognize reality or ability to meet the demands of normal life and includes mental conditions associated with the use of abuse of alcohol and drugs but excludes mental retardation.

This new definition of mental illness is over-inclusive, long and exhaustive which has legal implication as it may get misinterpreted by the legal system based on personal convenience. Instead the definition of mental illness a suggested in MHA, 1987 or the current internationally accepted definitions should to be retained.

- 6. Mental Health Review Commission (MHRC):** A Judicial Body MHRC with headquarters at Mumbai is proposed to be constituted by the Central Government with a Judicial Member who is qualified to be chief justice of a high court as president, a psychiatrist, representative of persons with mental illness, caregivers or their organization and a person with a background of public health administration. The commission shall appoint and function through state panels. State panels shall consist of a person qualified to be a District Judge as chairman, representative of district administration, two mental health professionals (one to be a Psychiatrist) and two members who are persons with mental illness, caregivers or person representing their organizations. Appeal against the decision of the state panels shall lie to the high court of the state.

Do we require MHRC? It is framed to safeguard rights of the mentally ill. Essentially it is related to treatment of the mentally ill. Psychiatrist has to be an integral component and medical representation should be more because in certain situations there may be need of more than one experts' view. Rather than establishing new commissions a concerted

effort should be made to strengthen existing central and state mental health authority which has remained non-functional for all practical purposes. They could be empowered with existing facilities which should reduce burden on the existing judicial system.

- 7. Prohibited Treatment:** Electroconvulsive Therapy (ECT) without the use of muscle relaxations and anaesthesia, ECT to minors and sterilization of persons with mental illness intended for treatment of mental illness are prohibited in the proposed draft. Psychosurgery may only be performed on approval of the state mental health authority.

As such there is a shortage of anaesthetists in the country and moreover evidences are there that unmodified ECT is as efficacious as modified ECT in patients with suicide, catatonia, severe psychomotor retardation or agitation. Thus it is too directive in nature and blanket ban on ECT for minors is unscientific. There is no evidence whatsoever that ECT is not safe below age of 18 years. Psychosurgery is no different from any neurosurgical procedure except that it is for treatment of some psychological ailments.

- 8. Admission of Minors:** The draft mentions that minor can be admitted in a mental health facility 'only' in exceptional circumstances. Each admission has to be for 30 days only. This would create problem in the establishment and functioning of child and adolescent psychiatric units in mental health facilities and would impede development of Child and Adolescent psychiatry in the country where we are dealing with increasing psychological problems in this highly vulnerable age group. There are patients who need treatment as inpatient e.g. treatment resistant schizophrenia, refractory mood disorders, organic mood disorders etc. The average stay of children and adolescents patients as inpatient is longer than adult patients. Thus admission for 30 days is not practical.
- 9. Research:** In case of research involving any psychological, physical, chemical or medicinal interventions to be conducted on persons who are unable to give free and informed consent but do not resist participation in such research, permission to conduct such research must be obtained from

concerned State Mental Health Authority. The State Mental Health Authority may allow the research to be conducted based on informed consent being obtained from the Nominated Representatives of persons with mental illness, if the State Mental Health Authority is satisfied.

Regarding research approval, teaching institutes will face enormous burden. Postgraduate students are under different regulatory bodies and university which has their own rule and regulation. In all biomedical researches the norms laid by ICMR (Indian Council of Medical Research) is the gold mark. Moreover each research needs approval from the ethical and scientific committee of the institute. Thus to carry out any research in future would become a cumbersome task.

CONCLUSION

Mental Health Care Act Draft (MHCA) is in its advance stages for becoming an Act which would repeal Mental Health Act 1987. The current MHCA draft is heavily dependent on mental health acts of Australia and United Kingdom. Do we need to implement such acts in Indian setting - needs a thorough debate across mental health professionals rather than involving Non-government Organizations and legal experts at large? Still there is an urgent need to debate the issues pertaining to the current draft.

REFERENCES

- Chandrashekar, H. (2011) Mental Health Care Act, Bulletin, 1, 13-15.
- Choudhary, L.N., Narayan, M., Deepshikha (2011) The on-going process of amendments in MHA-87 and PWD Act-95 and their implications on mental health care. India Journal of Psychiatry, 53, 343-350.
- The Mental Health Care Bill (2011) Available from <http://www.mohfw.nic.in/showfile.php> (last accessed on 2011, Dec., 27).
- UNCRPD (2006) Available from: <http://www.un.org/disabilites> (last accessed on 2011 Dec, 23).
- World Health Organization (2008) Scaling up care for mental, neurological and substance use disorders (MhGAP) WHO, Geneva.

Vinod K. Sinha

Review Article...

MENTAL HEALTH ISSUES FOR TOMORROW

S Haque Nizamie¹, Sai Krishna Tikka²

Abstract

Over six decades of our nation's independence, there has been a remarkable progress in the field of mental health. Yet there is a gross disproportion between the number of persons suffering from mental illnesses and available services i.e. a large 'treatment gap' in the community. This article summarizes the developments in this field since independence, analyses the current scenario as well as strategies and raises relevant issues on Indian mental health like administrative approaches, promotion of positive mental health and status of psychiatry in medicine. This article also highlights the importance of research in the advancement of psychiatry as a profession.

Keywords: Mental Health, future recommendations

INTRODUCTION

In India, mental health from ancient periods to the current era has evolved in a variety of ways, with an attempt to understand and negotiate mental illnesses (Mills, 2001). Mental health in India has witnessed several philosophies, concepts and revolutionary approaches. But the actual foundation to a systematic approach towards dealing mental health issues was made during the nation's independence and has now reached a stage of consolidation (Nizamie & Goyal, 2010).

MENTAL HEALTH IN INDIA AROUND INDEPENDENCE

The Bhore Committee Report, 1946 stated that prevalence of mental illness during that period was estimated to be about 2/1000 general population and India had only 10,000 psychiatric beds from 30 institutions for a population of over 400 million (Taylor, 1946). On the other hand, UK with one-tenth the population of India, had over 1, 50,000 psychiatric beds i.e. one psychiatric bed per every 40,000 population (Taylor, 1946). Trained man power was negligible as there were very few mental health professionals. Mental health infrastructure was exclusively asylum-based and custodial in its outlook. The research literature focused primarily on in-depth psychological understanding of mental disorders, focusing primarily on individuals and non-pharmacological management of psychiatric disorders was limited to non-specific psychotherapy (Trivedi, 1997).

Enhancing infrastructure and man power development were the major issues for future of mental health in India during post independent period. Establishment of independent psychiatric

departments in medical colleges prior to establishment of central institutes, which will be representative of the constituent units, was proposed along with suggestions for man power development that included the need for "all round experienced" psychiatrists emphasizing growth of psychiatry at graduate and post graduate levels of medical education (Bhagwat, 1953). The Bhore committee had earlier recommended for the provision of training facilities for medical men in India and abroad and for other types of mental health personnel in India (Taylor, 1946).

Unlike clinical medicine, socio-cultural dynamics and growth of allied sciences in the country, at least at a conceptual level, considerably influence development of mental health in India. A psychiatry department was suggested to have experimental psychology laboratory (both academic and social) (Bhagwat, 1953). Necessary liaison, emphasis on relating outpatient departments also to mental hospitals, application of psychiatry to social problems and, confronting overcrowding, poor sanitary conditions and regimentation were the recommendations made to improve quality of services. Initiating research that would provide information on planning and implementing appropriate services was also suggested for future of India's mental health in addition to the ones mentioned above (Taylor, 1946).

POST-INDEPENDENCE DEVELOPMENTS IN MENTAL HEALTH

For enhancing infrastructure, the initial two decades post-independence were dedicated to increasing the number of mental hospital beds (Sharma, 1990). A few new mental hospitals, notably at Delhi, Jaipur, Kottayam and Bengal, were

added alongside setting up of All India Institute Mental Health, which later became the National Institute of Mental Health and Neurosciences (NIMHANS) in 1974 at Bangalore (Nizamie & Goyal, 2010). Initiative in increasing mental hospital beds was followed by the setting up of general hospital psychiatric beds (Wig, 1978). In India, psychiatry was introduced to general hospitals in 1933 and by late 1950's Irwin Hospital, New Delhi (now G.B. Pant Hospital) and, Medical Colleges at Lucknow, Neki and Amritsar had separate general hospital psychiatry units (Nizamie & Goyal, 2010). Brisk growth of mental health in private sector (mostly confined to urban areas only) has been the most recent development towards infrastructure development (Murthy, 2011).

The concept of community psychiatry primarily aims at improving quality of services. The Central Institute of Psychiatry (CIP), Ranchi was among the first to initiate community psychiatry services by setting up one of the earliest rural mental health clinics in 1967 at Mandar, Ranchi (Nizamie et al, 2008). Keeping up with this, the first psychiatric mental health camp in India was organized in 1972, at Bagalkot, Karnataka (Nizamie & Goyal, 2010). Community psychiatry initiative was adopted to develop mental health services in 1975 (Murthy et al, 1978). Within the next few years i.e. in 1982, the National Mental Health Program (NMHP) was formulated. The District Mental Health Program (DMHP) developed during 1984–1990, was launched by Government of India as a 100% centrally sponsored scheme in 1996-97 during the 9th plan. Started initially in four states, it covers over 120 districts now (Murthy, 2011).

For developing man power, several hospitals like Hospital for Mental Diseases (now Central Institute of Psychiatry), Ranchi were given full-fledged status of training institutes (Nizamie et al, 2008). A formal training program for clinical psychologists (Diploma in Medical and Social Psychology, which was later converted into an M. Phil in Medical and Social Psychology) commenced at (NIMHANS), Bangalore and CIP, Ranchi along with development of specialization departments like child and adolescent psychiatry at NIMHANS, CIP and Madras Mental Hospital/Asylum (Nizamie & Goyal, 2010). Several developments in the field of research have also transpired. Articles that were psychoanalytically oriented and theoretical in nature dominated the research literature in the initial decades of post-independence and the last two to three decades have seen more specific and focused work (Nizamie & Goyal, 2010). Several specific disorders are targeted and, adaptations of methodologies and use of interventions have been the primary

focus. Another development has been the growth of the Indian psycho-pharmaceutical industry. Almost every major psychotropic drug is made easily available in India today.

EXISTING SCENARIO AND DIMENSION OF THE PROBLEM

Three meta-analyses on epidemiological studies report varying prevalence rates of mental illnesses in India i.e. 58.2/1000, 73/1000 and 65.4/1000 by Reddy and Chandrasekar (1999), Ganguli (2000) and Madhav (2001) respectively. The national prevalence rate (median score per 1000 population) of schizophrenia is 2.3, depression (psychotic and neurotic) is 31.2, anxiety neurosis is 18.5, hysteria is 4.1 and mental retardation is 4.2 (Madhav, 2001). We have 61,521,790 cases of major and minor mental disorders and about 30 to 35 lakh persons need hospitalization at anytime for mental illness (Mishra, 2008). Economic costs to the society are considerable, long-term and huge. Some costs are direct and measurable but many are impossible to quantify. Considering 65/1000 population as prevalence rate, the total cost required per year is estimated to be Rs. 23,400 crores (Math et al, 2007). The World Bank, World Development Report (1993) estimates Disability Adjusted Life Years (DALYs) loss due to mental disorders would represent 15% of the global burden of diseases by 2020.

Currently, India has 47 mental hospitals (Statistics of Mental Hospitals, 2006). World Health organization reports that in India there are 0.25 total psychiatric beds (i.e. 0.20 mental hospital beds and 0.05 general hospital beds) per 10,000 population, one psychiatrist for 5 lakh population, one psychologist, one social worker each for 30 lakh population and, one psychiatric nurse per 20 lakh population (W.H.O, 2005). Median rate of psychiatric beds in mental hospitals in countries belonging to south-east Asia region (among which India is the most populous country) is 0.9 beds per 1 lakh population. The change in rate of mental hospital beds per 1 lakh population between 2005 and 2011 is '-0.05' in these countries while the change in rate of psychiatrists is 0.02 per 1 lakh population (W.H.O, 2011). In addition, presently most of the mental hospitals have laboratory facilities, outpatient departments and emergency services.

The gross disproportion between the number of persons suffering from mental illnesses and the available services has led to a large 'treatment gap' in the community. Only about 10% of those who need urgent mental healthcare are receiving the required help with the existing services. From these data, we infer that the needs are still unmet even after more than 60 years of independence. When it comes to manpower and

infrastructure, compared to the prevalence as well with the data from other countries, India falls far below the expectation. Service provision and research fields though improved, still needs to be developed in accordance to the global outlook.

Patel and Copeland (2011) have rightly identified that lack of accountable leaders for NMHP in each state, the top-down prescriptive model of DMHP, fragmentation of the mental health sector between different government departments and, lack of linkages between different health care facilities and communities are the barriers in implementing India's mental health programme.

CURRENT STRATEGY

The National Mental Health Programme has an approved outlay of Rs. 1000 crore for the 11th five year plan and had an outlay of Rs. 120 crore for the year 2010-2011 (Ministry of health and family welfare, 2011). According to National Mental Health Programme- revised guidelines for 11th Five Year Plan, grants were released for up-gradation of Psychiatric wings of 71 Government Medical Colleges/General Hospitals and modernization of 23 mental Hospitals. Recently, Ministry of health and family welfare has funded 7 regional institutes against the 11 to be undertaken during 11th Plan for development of clinical psychologists, psychiatrists, psychiatric nursing and psychiatric social workers (PSWs) to increase the availability of trained personnel required for mental health care. An amount of Rs. 473.445 crore has also been approved for manpower development. A grant of upto Rs.30 crore is available for each of 11 centres of excellence (Ministry of health and family welfare, 2010). The expected outcome of the Manpower Development schemes is 104 psychiatrists, 416 clinical psychologists, 416 PSWs and 820 psychiatric nurses annually once these institutes/ departments are established (Sinha & Kour, 2011). These data are impressive; Government should continue to extend this much needed support.

There is also a need to establish more centers of excellence in the field of mental health by upgrading existing mental health hospitals or Institutes. Also, to increase manpower, Post graduate courses in mental health (Psychiatry, Clinical Psychology, Psychiatric Social Work and Psychiatric Nursing) should be started where they are not available and by increasing the number of seats in existing centers. Good amount of funding will be needed for developing infrastructure and increasing faculty in mental health to fulfill these ends as stated earlier. There can also be other strategies to manage manpower.

Like development of educational programmes for general practitioners so as to manage common psychiatric problems by themselves and hence are in a position to offset the problem of manpower shortage in the profession. Involving NGOs in training counselors, who offer a helping hand to those unable to handle stressful situations will be of immense help. Their contribution should be welcomed and they should be offered consultation services, wherever required.

After a tragic fire accident at Erwadi in 2001, in which 26 mentally ill patients died, situation at many other mental hospitals like those in Hyderabad, Ranchi, Ahmedabad, and Patiala was exposed. The Supreme Court of India followed by the National Human Rights Commission initiated action on the matter (Murthy, 2001). After the actions initiated there have been noteworthy improvements in the conditions of care in mental hospitals (Murthy & Sekar, 2008). Apex Court of India, following two noteworthy cases i.e. Sheela Barse vs. Union of India and Rakesh Ch. Narayan vs. State of Bihar has laid down some principles in this regard. They are: each and every patient must receive review or re-evaluation of mental problems; a mental health team comprising clinical psychologists, psychiatric nurses and psychiatric social workers must have place in every mental health hospital; right of a mentally ill person to food, water, personal hygiene, sanitation and recreation is an extension of the right to life as in Article 21 of the Constitution; quality norms and standards in mental health are non-negotiable; treatment, teaching, training and research must be integrated to produce the desired results; and obligation of the State in providing undiluted care and attention to mentally ill persons is fundamental to the recognition of their human right and is irreversible (Mishra, 2008). Measures should also be taken to retrain ward attendants to participate in therapy-related activities. They also should be taught to motivate the patients to plan for their own future and to participate in rehabilitation activities.

SUGGESTIONS FOR MENTAL HEALTH POLICIES FOR FUTURE

Ministry of Health and Family Welfare, Government of India constituted a mental health policy group comprising of diverse stakeholders (mental health professionals, policy makers, general health care providers and concerned members of the community) and has made extensive consultations around the country to radically revise the existing NMHP. Patel and Copeland (2011) remark that such a radical transformation would bring about greater visibility of mental illness in the national policy and programmes.

Meetings held at various nodal centers across the country to revise the existing mental health program uniformly acknowledged the need for better community involvement, development of human resources and health finance, and community monitoring through various mental health indicators for better governance. There is recommendation to decentralize the implementation of the National Mental Health Program and a larger integration of DMHP into Ministry of Health and Family Welfare and Ministry of Social Justice and Empowerment. A demarcation at the Community Health Centre (CHC) level is suggested for mental health care delivery, above this level the delivery would be through a vertical cascade and below this level it would be through a horizontal cascade. Establishing community mental health worker in the lines of ASHA (Accredited Social Health Activist) is also proposed.

Various mental health professionals and administrators across the country who attended these meetings also advocated that the mental health programs should be simple for better implementation and should focus on long term plans rather than focusing on shorter 5 year plans. They have also proposed that the goals for each district should be different and these will be based on the district wise analysis of number of PHCs, existing health care facilities, availability of psychiatrists, case load estimation etc.. Considering cultural context of various districts and poor human resources, role of involving AYUSH doctors and faith healers in the comprehensive treatment plans is emphasized.

Other recommendations were, public awareness and education to be given in all local languages as it is utmost important in reducing stigma, a dialogue with ministry of education, stress on maintaining privacy of health records, vouchers to reduce expenses on part of the patient for attending therapy/ rehabilitation sessions and basic mental health training for medical officers where psychiatrists are not available.

There is consensus that public care approach would be better than a medically centered approach in the mental health program's service delivery. Role of linkage with sectors like voluntary organizations, educational, labor and other departments is also highlighted.

Alongside these two approaches i.e. public care approach and medically centered approach; recently there has been emphasis on a 'right based approach'. According to which, persons with mental illness have the same right to excellent health care, without discrimination; health related treatment and

services are available on equal basis as others; will get specific services they need because of their illness; will have access to health services in their communities; will get excellent, free and affordable health care; have access to health insurance and life insurance that is in accordance with law; and will not be discriminated against or denied health care services because of their illness [First Country Report of India on the United Nations Convention on the Rights of Persons with Disabilities].

World Health Organization in collaboration with Government of India has inscribed certain likely policy and health system interventions to be implemented in the immediate future [Draft for the National Summit on Non-communicable Diseases]. They are: implementation of the revised Mental Health Care Act and its strengthening; capacity building of policy makers and programme managers; training of all medical and health professionals for early recognition and management of mental illnesses; expanding the role of mental hospitals and medical college psychiatry units to integrate preventive, curative, promotive and rehabilitative services along with manpower development and research; rehabilitation services at the district level and in urban areas; regular and continuous availability of commonly required medicines at different levels of health care delivery system; strengthening educational and employment opportunities for those who have recovered from mental disorders; and likely expansion of NMHP to entire country i.e. all districts during 2012-2017. Integrating mental health with other activities in health sector, with AYUSH systems of medicine, and also with other related sectors is also recommended as discussed earlier.

PRIMARY PREVENTION AND PROMOTION OF MENTAL HEALTH

Mental health professionals should be made to participate actively in disaster management. Because significant proportion of people exposed to moderate or severe psycho-social stress like civilian disasters or earthquakes are at high risk of becoming psychiatrically ill. Absence of emotional security or presence of abuse in childhood may lead to behaviour problems and adjustment difficulties in adulthood. These should be vigorously explored and managed under psychiatric observation. More aggressive measures should be taken to identify "At risk mental states" for prevention of recurrences in episodic psychotic or affective disorders. Many a tools are available now, but they need to be standardized for the Indian population.

Another issue in preventive mental health is promotion of geriatric mental health. Recently, Tiwari and Pandey have put forward certain proposals. 1. Integrating geriatric mental health in NMHP i.e. through imparting training in geriatric mental health to mental health practitioners in DMHP programme and making 20% of allocated 10 beds available for geriatric mentally ill patients; 2. Development of infrastructure i.e. by starting at least one department of geriatric mental health in each state; 3. A national policy for geriatric mental health; and 4. Recognizing geriatric mental health as a distinct medical subject as elsewhere in the world and incorporating it in undergraduate training.

Governmental and non-governmental organizations have to arrange awareness programmes and engage elderly in unskilled and semiskilled occupations, so that the public in general pay respect and give emotional support to them. Mass media can be used to create awareness among the public. Another method is properly educating people as soon as they attain their adulthood about the approach to deal with problems in old age.

DE-INSTITUTIONALIZATION

Transferring the responsibilities to general hospital psychiatric units (GHPU) and other community-based services, in what is described as a 'de-institutionalization' policy. The well intentioned deinstitutionalization movement was started with an objective of treating and rehabilitating mentally ill patients in community itself, so to reduce human rights violations. But, it has almost failed to achieve its aim. This policy has made many mentally ill patients suffer in jails, prisons, beggars' homes, shelter homes and streets. Human right violations which were supposed to occur behind impregnable walls of mental hospitals are occurring in the society itself (Sheth, 2009). It also poses a great strain on the relatives of patients who have to look after them. There is also a possibility of trans-institutionalisation, whereby the patient gets transferred from one institution to another. This is disadvantageous and unsatisfactory. There are suggestions that such problems can be solved by providing employment to mentally ill patients, building more halfway homes, quarter way homes, daycare centers, sheltered workshops; providing a housing facility to the improved patients; establishing the special courts which deals with the cases pertaining to mentally ill on a preferential basis and along with it enacting the laws to protect rights of mentally ill patients (Sheth, 2009). In the western countries, where the population is stagnating or declining, such suggestions may

be practical as indicated by a recent study from Finland, which reported that life expectancy for people with schizophrenia and other psychoses, mood disorders and neurotic disorders after deinstitutionalization of mental health care has increased (Westman et al, 2011). But, India's present infrastructure makes most of these possibilities improbable. In India, we should not close down mental hospitals, as alternative community-based services are not adequately developed. Attempts should be to develop full-fledged psychiatric units in all general hospitals more vigorously, offering a spectrum of psychiatric services. Active out-patient department and a well-developed consultation–liaison service will be a good alternative.

STATUS OF MENTAL HEALTH IN MEDICINE

As discussed earlier growth of mental health depends not merely on developments in psychiatry, but also developments in allied departments i.e. clinical psychology, psychiatric social work and psychiatric nursing. The role of a national body that governs progress in each of these disciplines is crucial. Although psychiatry, clinical psychology and psychiatric nursing have their own respective national bodies, unfortunately there is no central governing agency that handles psychiatric social work. There is an urgent need to form one such body. Also it can be suggested that a single comprehensive council may be formed that deals with all of these allied sciences.

According to Medical Council of India (2010) data, currently there are 335 medical colleges in India. Among them only 132 centers impart doctor of medicine (MD) in psychiatry and 56 centers impart Diploma in psychological medicine (DPM). Post graduate training in psychiatry, hence is available in only about 40% of colleges. There are questions raised about the future of psychiatry as a profession. Answers to these questions have to emerge from research. Research needs to be informed with the public health burden, recognizing that mental disorders are among the largest sources of medical disability like AIDS and cancer. Most psychiatrists and general physicians are not aware of the basic morbidity and mortality statistics of the major mental disorders.

SUGGESTIONS TO IMPROVE RESEARCH FOR THE BETTERMENT OF MENTAL HEALTH AS A PROFESSION

Many researchers have proposed for a paradigm shift towards biology in future for progress of mental health. Knowing the pathophysiology of genetically complex disorders such as hypertension, Alzheimer's disease, diabetes, and breast

cancer, which have psychiatric comorbidity; identifying individuals at risk, early detection and diagnosis, and specific evidence-based treatment; and then extending this research to understand complex genetics of mental illnesses like schizophrenia, autism, and bipolar disorder is being proposed to yield an approach to understanding risk and planning aggressive preventive interventions (Insel & Fenton, 2005). Other proposals for this paradigm shift are: development of laboratories with neuroimaging tools such as fMRI as these tools are suggested to quantify mental illnesses; emphasis on discovery of medications for core symptoms of autism, the cognitive deficits of schizophrenia, or for rapid antidepressant action; and bringing experimental treatments like deep brain stimulation to routine clinical practice (Insel & Fenton, 2005). Although these proposals are reasonable to some extent, in our view biology alone cannot define the future of mental health. Biology and neurosciences have provided an extraordinary contribution to understanding the brain but very few practical solutions (Saraceno, 2004). Disciplines like experimental cognitive psychology, where studies are performed to find causal relations and the factors influencing behaviour will also be playing an essential role in taking mental health forward into future. Saraceno (2004) also asserts that the social dimension of mental illness should also be included as an intrinsic component of intervention and that social dimension of mental illness requires a social dimension of treatment. From a psychosocial view point, a paradigm shift in mental health where recovery is the guiding principle is also proposed (Padgett, 2007). Recovery here reflects a consumer-driven vision of pursuing a fulfilling life-with or without formal treatment. We believe research that takes in to account principles from various schools of mental health i.e. a biopsychosocial approach rather than focusing on a single discipline is going to determine the future of mental health.

Another important field in research is psychiatric epidemiology. It holds enormous potential to improve the understanding of mental disorders in the Indian region. Large-scale multi-centric studies on representative populations, by developing epidemiological databases in defined populations, is a crucial activity to be promoted in the years to come (Gururaj & Isaac, 2005). Psychiatric epidemiology needs to expand into the areas of operational research to study the utilization pattern of services as well, thereby making care available to those in need.

REFERENCES

- Bhagwat, G.A. (1953) Future of psychiatry in India. Presidential address at annual general meeting of the Indian Psychiatric Society. *Indian Journal of Psychiatry*, 4, 1-8.
- Ganguli, H.C. (2000) Epidemiological finding on prevalence of mental disorders in India. *Indian Journal of Psychiatry*, 42, 14-20.
- Ganju, V. (2000) The Mental Health System in India: History, Current System, and Prospects. *International Journal of Law and Psychiatry*, 23, 393-402.
- Gururaj, G. & Isaac, M.K. (2005) Psychiatric Epidemiology in India: Moving beyond Numbers. In: Agarwal, S.P., Goel, D.S., Ichhpujani, R.L., Salhan, R.N., Shrivastava, S., (Eds). *Mental Health: An Indian Perspective, 1946-2003*. Directorate General of Health Services, Ministry of Health & Family Welfare: New Delhi.
- Insel, T.R. & Fenton, W.S. (2005) Psychiatry: Past and Future. In: Sadock, B.J., Sadock, V.A., (Eds). *Kaplan & Sadock's Comprehensive Textbook of Psychiatry*, 8th Edition. New York: Lippincott Williams & Wilkins.
- Madhav, M. (2001) Epidemiological study of prevalence of mental disorders in India. *Indian Journal of Community Medicine*, 26, 10-12.
- Math, S.B., Chandrashekar, C.R., Bhugra, D. (2007) Psychiatric epidemiology in India. *Indian Journal of Medical Research*, 126, 183-192.
- Medical council of India. (2010) List of colleges and courses. Available at <http://www.mciindia.org/InformationDesk/CollegesCoursesSearch.aspx>.
- Mills, J. (2001) The history of modern psychiatry in India 1858-1947. *History of Psychiatry*, 12, 431-458.
- Ministry of health and family welfare (2010) Annual Report to the People on Health: 2010. Ministry of health and family welfare, Government of India: New Delhi.
- Ministry of health and family welfare (2011) Annual Report: 2010-11. Ministry of health and family welfare, Government of India: New Delhi.
- Mishra, L. (2008) Human rights in mental health care: an introduction. In: Nagaraja, D., Murthy, P., (Eds). *Mental Health Care and Human Rights*. National Human Rights Commission: New Delhi and National Institute of Mental Health and Neuro Sciences: Bangalore. pp, 15-36.
- Murthy, P. & Sekar, P. (2008) A decade after the NHRC quality assurance initiative: current status of government psychiatric hospitals in India. In: Nagaraja, D., Murthy, P., (Eds). *Mental Health Care and Human Rights*. National Human Rights

- Commission: New Delhi and National Institute of Mental Health and Neuro Sciences: Bangalore. pp, 101-142.
- Murthy, R.S. (2001) Lessons from the Erwadi tragedy for mental health care in India. *Indian Journal of Psychiatry*, 43, 362-377.
- Murthy, R.S. (2011) Mental health initiatives in India (1947–2010). *The National Medical Journal of India*, 24, 26-35.
- Murthy, R.S., Kala, R., Wig, N.N. (1978) Mentally ill in a rural community: Some initial experiences in case identification and management. *Indian Journal of Psychiatry*, 20, 143–147.
- Nizamie, S.H. & Goyal, N. (2010) History of Psychiatry in India. *Indian Journal of Psychiatry*, 52, S7-S12.
- Nizamie, S.H., Goyal N., Haq, M.Z., et al (2008) Central Institute of Psychiatry: A tradition in excellence. *Indian Journal of Psychiatry*, 50, 144-148.
- Padgett, D. (2007) Recovery as the New Paradigm in Mental Health. *NYU Social Work- Newsletter*. New York University, School of Social Work: New York. pp. 1-2.
- Patel, V. & Copeland, J. (2011) The great push for mental health: why it matters for India. *Indian Journal of Medical Research*, 134, 407-409.
- Prakash, B.B. (2000) General hospital psychiatry in India. In: Murthy, R.S., Editor. *Mental health in India*. People's Action for Mental Health: Bangalore, 140–141.
- Reddy, M.V. & Chandrasekar, C.R. (1999) Prevalence of mental and behavioural disorders in India: A metaanalysis. *Indian Journal of Psychiatry*, 40, 149-157.
- Saraceno, B. (2004) Mental health: scarce resources need new paradigms. *World Psychiatry*, 3, 3–5.
- Sharma, S.D. (1990) *Mental hospitals in India*. Directorate General of Health Services, Government of India: New Delhi.
- Sheth, H.C. (2009) Deinstitutionalization or Disowning Responsibility. *International Journal of Psychosocial Rehabilitation*, 13, 11-20.
- Sinha, S.K. & Kour, J. (2011) National mental health programme: Manpower development scheme of eleventh five-year plan. *Indian Journal of Psychiatry*, 53, 261–265.
- Statistics of Mental Hospitals (2006) *Public Health Statistics*. Ministry of Statistics and Programme implementation. Available at http://mospi.nic.in/mospi_new/site/India_Statistics.aspx?status=1&menu_id=14.
- Taylor, M. (1946) Report of the health survey and development committee. Shimla: Government of India Press.
- Tiwari, S.C. & Pandey, N.M. Status and requirements of geriatric mental health services in India: an evidence- based commentary. *Indian Journal of Psychiatry*. DOI: 10.4103/0019-5545.94639.
- Trivedi, J.K. (1997) Fifty Years of Psychiatric Research in India. *Indian Journal of Psychiatry*, 39, 1-2.
- Westman, J., Gissler, M., Wahlbeck, K. (2011) Successful deinstitutionalization of mental health care: Increased life expectancy among people with mental disorders in Finland. *European Journal of Public Health* (Epub ahead of print, DOI: 10.1093/eurpub/ckr068).
- Wig, N.N. (1978) General hospital psychiatric unit—right time for evaluation. *Indian Journal of Psychiatry*, 20, 1–9.
- World Bank, World Development Report. (1993) *Investing in Health*. New York: Oxford University Press.
- World Health Organization. (2005) *Mental health atlas*. Geneva: World Health Organization.
- World Health Organization. (2011) *Mental health atlas*. Geneva: World Health Organization.

-
1. **Prof. S. Haque Nizamie**, MD, DPM, (Corresponding Author) Professor of Psychiatry and Director, Central Institute of Psychiatry, Ranchi. E-mail : rch_cip45@bsnl.in
 2. **Dr. Sai Krishna Tikka**, DPM Junior Resident (Psychiatry), Central Institute of Psychiatry, Ranchi
-

Review Article...

SELF-DEFEATING BEHAVIOUR PATTERNS: CLINICAL IMPLICATIONS

Abdul Salam K P¹, Manjula M²

Abstract

Self-defeating behaviours have been defined as behaviours leading to lower cost - reward ratio than is available to the person through alternative behaviours (Curtis, 1989). The concept is in not a novel one in the field of Psychology. The discussions about the philosophy of freedom of choice to defeat/destroy oneself and the development of the concept of death instinct, all denotes the antiquity of the concept. The concept has important implications in understanding various clinical manifestations and probably great utility in the treatment of the same. However, the discussions about and research on the construct has been confined to the realm of social psychology. Such research has helped us understand the concept, its development, its various dimensions and difficulties in dealing with/modifying such behaviour patterns. However, an active effort to integrate the concept to clinical psychology would help clinicians in understanding and using the concept better.

Key Words: *Self-defeating behaviours, self-defeating personality disorder, masochism, belief-perseverance.*

INTRODUCTION

Self-defeating behaviours (SDB) have been defined as behaviours leading to lower cost-reward ratio than is available to the person through alternative behaviours (Curtis, 1989). The concept is not really a novel one. It has been around the corner for many years. The arena of discussions about it has ranged from pure philosophical deliberations to psychological explanations to anatomical understandings.

Masochism was perhaps one of the facets of self-defeating behaviour that was attended to by the early founders of psychological science. Masochism has been an incomprehensible phenomenon for many of these thinkers. The concept of masochism raises important philosophical issues. Pleasure vs. pain is a juncture that confronts all of us in our day to day life and it is generally considered (at least by the mainstream view) that one would choose pleasure. For many of us, the idea of life itself revolves around pleasure. So what makes someone choose pain instead of pleasure in this perplexing phenomenon of masochism? Freud tried to explain these self-destructive tendencies by postulating a hypothetical construct of 'death instinct'. However, the 'invention' of such an instinct did not end the philosophical discussions of one's freedom of choice. Are we free enough to choose pain or pleasure? Or are our actions determined by the so-called psychic forces? In modern psychological research, the construct of self-defeating behaviour has been investigated chiefly in the realm of social psychology. Such research has left us with

important insights into the definition and scope of the construct, its developmental course in a person and difficulties in dealing with/modifying these patterns. However, there is a lack of active efforts to integrate this highly useful concept into clinical treatment regimes. Such an integration would help the clinician gain more insight into many of the recurring patterns that they recognize in their clients. This paper is an attempt to understand the construct as manifested in various clinical disorders and its implications in therapy.

CATEGORIES OF SELF DEFEATING BEHAVIOURS

The construct of self-defeating behaviours is too broad to be a unitary concept. There have been attempts to classify and categorize various forms of the phenomenon. Baumeister and Scher (1988) categorized self-defeating behaviours into three categories:

- a) 'Primary self- destruction' wherein the person engages in the behaviour even when they foresee the harm in doing so.
- b) 'Trade-offs' are postulated to behaviours which have short-term benefits but result in long-term, foreseeable costs. This construct takes to the philosophical dilemma faced by humans in their daily lives of 'long - range versus short range hedonism'.
- c) 'Counterproductive strategies' are the wrong choices that people make which defeat their very goals.

VARIED APPROACHES TO UNDERSTAND SELF DEFEATING BEHAVIOURS

Different approaches/models to human behaviour have helped us to understand the diverse facets of the construct. Social-cognitive psychological research has helped us to understand the development of these patterns. It posits that certain beliefs about how the world functions are developed during preverbal or earlier stages of maturation. These beliefs guide the person's reaction to external stimuli throughout life and develop into one's theories about self and society. Studies have shown that belief-falsification is difficult than belief-confirmation. Therefore, the person avoids information which falsifies his beliefs (information processing biases). Thus once formed, these self and social theories are resistant to modification.

Various mechanisms of self defeating behaviours like excuse-making, 'choosing to suffer' and 'trying to fail' are explained by these attempts of the person to preserve one's self and social theories. Thus, it is hypothesized that success is avoided since it may have the consequence of disconfirming the person's beliefs, which is threatening.

Masochism is the concept in Freudian theories which comes closest to the construct of self defeating behaviour. Masochism remained difficult to be explained in the context of 'pleasure principle'. Freud, therefore, explained the self-destructive tendencies in man using the concept of 'thanatos' to explain the dilemma. His references to the concept of self destruction/masochism were mostly in context of sexual perversion. He delineated three different types of masochism (Freud, 1924):

1. **Erogenic Masochism:** This is the pure form of masochism wherein the person derives pleasure from pain.
2. **Feminine masochism** refers to the passive position taken by man which is 'normally woman's position'. This primarily includes the sexual perversion involving self - infliction of pain.
3. **Moral masochism**, for Freud, refers to the relationship between ego and superego. It essentially is the pain induced by a punishing super ego.

Interpersonal approaches to human behaviour have postulated that masochism can function to strengthen and structure relationships. Such behaviour elicits responses of sympathy and pity from others. Self - effacing - masochistic interpersonal style described in the interpersonal circumplex (Freedman et al,

1951) resembled self - defeating patterns. These individuals are thought to be anxious, guilty, submissive and self-condemning (Leary, 1957).

Systemic approaches to human behaviour have discussed about the role of cybernetic/feedback loops in the maintenance of 'abnormal' behaviour. However, it has to be noted that these theories focus more on the role the person plays in the maintenance of these loops or cycles in the larger context than how the individual "creates" his/her own self-defeating patterns. This is in line with the circular-systemic epistemology of these models. 'Ironic processes' in Magnetic Resonance Imaging (MRI) brief therapy model and 'attempted/failed solutions' in strategic/solution focused therapy are terms hinting similar phenomenon, in different models of family/system focused therapies. These terms refer to, 'solutions' attempted by the person, which escalates or maintain the problem. When these solutions are not working, the person tries even harder, which worsens the situation (Haley & Richeport-Haley, 2003; O'Connell, 2005, Carr, 2006).

An example of this in a family context can be a parent trying to control a rebellious adolescent. The more controlling the parent become, the more rebellious the son/daughter's behaviour is. In response to this, the parent tries to control even more, which escalates the problem. The parent's attempt at controlling, though well-intentioned, can be viewed as defeating the whole purpose of his/her behaviour. This is an example of 'counterproductive strategy'.

Though traditional behavioural and cognitive behavioural approaches did not employ a similar construct (though self-defeating cognitions are considered to be the cause of maintenance of distress in CBT), 'third-generation behaviour therapies' appear to use similar concepts. Acceptance and Commitment Therapy (ACT), for instance, utilizes the dictum 'solution is the problem' (Hayes & Smith, 2005). ACT postulates that when we are in distress, we try to control our negative emotions such as anxiety and sadness. This very attempt at controlling it is understood to increase the negative emotional states. Thus, the 'solution' turns out to be self-defeating and a 'counterproductive strategy'. Mindfulness - based approaches also look at thought suppression and control in a similar vein.

Biological underpinnings of these behaviours are worth consideration. There has been no research explicitly on these behaviours. However, neurobiological research on decision making may provide some clues. The concept of 'trade-off' can

be looked at as inability to evaluate and gauge the long-term consequences of the behaviour adequately. This is connected to the reward systems in the brain. The brain seems to work on the principle of immediate reinforcement and therefore, the short-term benefits of our behaviours are most apparent to us. The dopaminergic mesolimbic pathways appear to play a crucial role in the experience of reward and reinforcement (Kupfermann et al, 2000). The somatic marker hypothesis (Bechara & Damasio, 2005) may also provide some clues. The hypothesis posits that decision-making is an emotional process and is regulated by biological markers or signals. Deficits in these (regulated by frontal lobes, especially the ventromedial regions) may lead to irrational decisions (Bechara, 2004), which are at the core of self-defeating behaviour patterns. The inability to fore-see negative future may be associated with dysfunctions in higher cortical structures such as ventro-medial prefrontal cortex (Bechara, 2004). Dysfunctions in serotonergic projections to orbitofrontal cortex also seem to result in impaired decision making. A neural network involving striatum and orbitofrontal cortex has been postulated to play a central role in decision making and in neuropsychiatric disorders (Rahman et al, 2001). Impaired decision making has been reported in addictive behaviours (Bechara, 2003), suicide (Jollant et al, 2005), mania (Rubinsztein et al, 2001), anxiety (Miu et al, 2008) and externalizing behaviours such as ADHD (Ernst et al, 2003).

COMMON CLINICAL CONDITIONS WITH SELF DEFEATING BEHAVIOURS

Self-defeating behaviours are evident in some of the most common disorders like substance abuse and depression.

Depression can be viewed as a pattern of self-defeating behaviours (Lester & Hoffman, 1992; Wei & Ku, 2007). Dysphoric or depressed mood is the most characteristic symptom of depression. The individual infers on the basis of unhappy experience that he or she is incapable of exerting control and achieving desirable outcomes. Therefore, he/she is no more interested in attempting to make changes in their life. The individual makes attributions to stable, internal and global causes (Abramson et al, 1978). This prevents the individual to make efforts to acquire control and act effectively in subsequent situations (Overmier & Seligman, 1967) which maintains the depression, in turn.

Preliminary researches have confirmed this hypothesis of maintenance of depression. In a study using 55 men and women with depression, it was found that the more self

defeating characteristics the person had, the more negative were subject's cognitions about self, world and future (Schill & Sharp, 1995) which is an essential characteristic of the condition.

Substance misuse is another category of psychological disturbance which are evidently self defeating in nature. Substance abuse can be best understood as "trade - offs" (Baumeister & Scher, 1988). The person misuses the substance for short-term, immediate pleasure though it may be harmful in the long term. The immediate effects of gaining pleasure and lowering of self - awareness (Hull, 1987; Heatherden & Baumister, 1991) becomes attractive than the long term effects in the form of harmful health consequences.

Social anxiety is self - destructive in the context of the nearly universal desire to be liked and to have friends. The fear of making bad impression (Schlenker & Leary, 1982; Hope et al, 2010) causes the person to adopt a self - presentational style (Arkin, 1981). Rather than risk embarrassment and rejection, they tend to make no impression at all by withdrawing from social situations (Hope et al, 1996; 1997). This chronic avoidance prevents them from learning the necessary social skills to deal with social situations, which maintains the disorder.

A person with paranoia is thought to develop a basic lack of trust from early experiences (Roland & Silver, 2010). This mistrust prevents him from getting closer in relationships and thus prevents him from developing healthy relationships or developing the skills necessary for the same. Once mistrust is developed, even contradictory or new evidence is not helpful in modifying the original beliefs (since belief-confirmation is easier than belief-falsification), which maintains the cycle (Kramer, 1998).

The common clinical condition of Obsessive Compulsive Disorder can be considered an example of 'counterproductive strategies'. The person learns that compulsions help him/her reduce anxiety arising out of the obsessions. Therefore, the person increasingly engages in compulsions, which escalates the problem. Thus, the attempt to control the anxiety turns out to be self-defeating, maintaining the problem.

An extreme case of self-defeating behaviour is suicide. It's unclear if suicide could be an example of 'primary self-destruction' and if human beings actually do have an instinct to destroy themselves. However, many suicides appear to be a 'trade-off'. The person weighs the pros and cons of committing

suicide to that of continuing life and decides in favor of ending life. Impaired decision - making may increase the risk of environmental adversities for these individuals (Jollant et al, 2007). Therapists and counselors, in most approaches, get the person to re-assess these pros and cons so that he/she re-evaluates his/her decision to commit suicide.

OTHER COMMON PROBLEMS

Another major area where the concept of self defeating behaviours comes in handy to understand the phenomenon is that of non-compliance to treatment regimens. Non - compliance can be seen as a trade -off between costs of treatment and benefits of health. Costs of treatment can be in the form of immediate discomfort in having to follow the treatment specifications like exercise and dieting (Antonovsky & Katz, 1970; Maggiolo et al, 2002). It can also be financial costs of treatment (Toh et al, 2010), interruptions with daily routine (Tagliacozzo & Ima, 1970) or time consumption (Haynes, 1979). Conflicts with personal (“Taking medication is a sign of weakness”) and social norms (e.g. Exercise not being a part of daily routine for the majority of the society) have also been found to influence the person’s decisions (Davis & Eichhorn, 1963). In essence, the person chooses not to follow the treatment guidelines for these short-term benefits which are clearly detrimental in the long run. Non-compliance then leads to further health (physical or mental) complications and increases the need for treatment and the cycle continues.

Gambling can also be viewed as a self-defeating behaviour. Expectation about immediate gain motivates the person to engage in gambling though the effects are deleterious for the person in the long run. In a study examining the psychological correlates of gambling, scores on Self-defeating scale of Millon Clinical Multiaxial Inventory (MCMI) was found to be positively associated with involvement in gambling (Henderson, 2004) which is an elementary finding supporting this formulation.

Another common behavioural issue is that of procrastination. This is evidently counter-productive and self-defeating. Some researchers point to the link between perfectionism and procrastination (Flett et al, 1992). The individual procrastinates because the person is trying to obtain a perfect, ideal solution or follow a perfect plan. The plan is usually not executed since it is of high standards and therefore, usually, impractical and unrealistic. This leads to postponing it and thus, the person ends up not doing even the average kind of work.

IS SELF DEFEATING BEHAVIOUR A PERSONALITY DISPOSITION?

DSM III - R had included the category of Self Defeating Personality Disorder (SDPD) under “proposed diagnostic categories needing further study”. It was purported to be distinct from depression, dependency, situational reactions to abusive relationships and narcissism.

Berglas (1988) has identified three components of this type of personality:

1. Self - protection
2. Narcissism
3. Secondary gain from the behaviour pattern

Enormous amount of criticism was raised against this categorization. It was argued that the diagnosis has high potential to be misused against women. Brown (1992) argued that women are more likely to be diagnosed with it simply by virtue of compliance with norms of femininity. It was also argued that the bias would be particularly harmful to women within harmful relationships (Widiger, 1995) since they could be easily labeled as having ‘self - defeating personality’. The label also could provide a rationalization for social agencies to neglect economic, social and environmental contributions to victimization (Brown, 1992), blaming their condition on their ‘personality’.

It was also argued that SDPD can be considered as a sub clinical or mild variant of chronic depression (Akiskal, 1983). Some were skeptical about the value of the diagnosis of SDPD because it is so similar to the dependent and passive - aggressive personalities and might not provide any additional or unique information. (Bradley et al, 2006)

Researches continue on the validity of SDPD as a diagnosis though it is not a part of DSM - IV. Some studies have supported the validity of the diagnosis (Cruz et al, 2000), while others do not (Skodol et al, 1994; Huprich et al, 2006).

IMPLICATIONS FOR THERAPY

Given the importance of these behaviour patterns, assessment and analysis of self and social theories of any given client is strongly implicated. The assessment should include the early experiences, the expectations about self and life and the fundamental world view; which are found to lay the foundation for the beliefs which perpetuate these patterns.

Self defeating behaviour is usually assessed using the MCMI 'self-defeating sub-scale'. It is a 15-item scale, items pertaining to acting in a self-sacrificing manner, feeling they deserve to suffer, mild depression and allowing themselves to be taken advantage of. However, the scale provides too little data to base conclusions for planning therapeutic interventions.

Berglas (1989) has suggested that therapy should be based on the prominent dimensions of the behaviour patterns. Psychodynamic treatments are the choice when it is narcissistic type. Cognitive behavioural strategies are effective if the clients present with predominant self - protective concerns. Couple/ family therapy is warranted if secondary gains are implicated. Processes in cognitive restructuring such as challenging the formative evidence, presenting new evidence, urging open minded observation and interaction can be helpful. Techniques like positive data log, actively getting feedback from others and confrontations about the maladaptive effects of the beliefs are found to be helpful.

However, the greatest disadvantage is that all these methods demand the active participation, great awareness and high motivation on the part of the client. Modifying these patterns when they are severe and rigid, and when the client is not motivated to actively participate in the same has not been discussed widely in the literature.

As for systems-focused/family interventions, these models attempt to change the problem-feeding feedback loop in communication and interaction between family members and sub-systems so that the problematic behaviour is no more required. This can be understood in the context of interventions aimed at bringing about 'second order change'. This is referred to in different ways in different models: 'restructuring' and 'unbalancing' in structural family therapy, 'de-escalation of conflict patterns' in emotion-focused therapy, 'paradoxical interventions' and 'doing something different' interventions in strategic/solution focused models and 'trouble-shooting' in cognitive-behavioural model of marital therapy -these are all examples of interventions which aim to break negative, repetitive interactional patterns ((Minuchin, 1974; Haley & Richeport-Haley, 2003; O'Connell, 2005; Carr, 2006; Johnson & Greenman, 2006).

Pharmacological interventions are known to alter these behaviour patterns. It has been postulated that while psychological therapies work through a top-down regulation of the sub-cortical structures by the cortical (especially the

frontal lobes) ones, pharmacological therapies act through a bottom-up regulation of emotional processing, acting directly on the limbic structures (DeRubeis et al, 2008; Gabbard, 2000). Thus, medicines act on (especially the serotonergic) limbic projections onto the pre-frontal and frontal structures; which are known to play a pivotal role in decision making. The somatic marker hypothesis also states that decision making is essentially an emotional activity. Thus, the influence of pharmacological agents on the decision (to continue or halt self-defeating behaviours) taken by the person through action on the amygdaloid system becomes obvious.

CRITICAL EVALUATION

Attempts have been made to define and conceptualize the construct from various perspectives. Its various dimensions, formation and perseverance have been researched into. A substantial amount of research has gone into the confirmation of the existence of such behaviour patterns. The difficulties in modifying these patterns have also been discussed and researched.

The researches, however, have been on normal populations. There are not many researches done on clinical populations which make it difficult to apply in clinical settings. There have been only few attempts at linking self-defeating behaviour and clinical manifestations. Most of the efforts of this kind are at the level of theoretical speculations. There is a great dearth of empirical data in this regard. The question of how is the manifestation of self-defeating behaviour different in different disorders is yet to be answered.

The concept has, more or less, been used in explaining the effects of existing treatment methods (cognitive-behavioural methods in particular). However, more effective treatments utilizing the theoretical understanding of the phenomena have not come forth.

FUTURE DIRECTIONS

As is already evident, the area, lacking in empirical data, calls for intensive research. Some of the preliminary questions in this regard may be:

- Do people really have self - destructive tendencies or are they just trade - offs?
- What is the role of various mediating factors like stress, self - awareness etc.?
- How is the manifestation of self-defeating behaviour

different in different disorders?

- How can the construct be used to develop strategies to make therapy more effective?

The answers would open up avenues in clinical practice where the concept could put to use for the betterment of human lives.

REFERENCES

- Abramson, L.Y., Seligman, M. E. P., Teasdale, J. (1978) Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87, 49-74.
- Akiskal, H. (1983) Dysthymic disorder: Psychopathology of proposed chronic depressive subtypes. *American Journal of Psychiatry*, 140, 11-20.
- Antonovsky, A. & Katz, R. (1970) "The model dental patient: An empirical study of preventive health behaviour. *Social Science and Medicine*, 4, 367-380.
- Arkin, R. M. (1981) Self presentation styles. In: J. T. Tedeschi (Ed.), *Impression management theory and social psychological research*. pp 311-333. New York: Academic Press.
- Baumeister, R. F. & Scher, S. J. (1988) Self-defeating behaviour patterns among normal individuals: Review and analysis of common self-destructive tendencies. *Psychological Bulletin*, 104, 3-22.
- Bechara, A. (2003) Risky business: Emotion, decision-making and addiction. *Journal of Gambling Studies*, 19, 23-51.
- Bechara, A. (2004) The role of emotion in decision-making: Evidence from neurological patients with orbitofrontal damage. *Brain & Cognition*, 55, 30 - 40.
- Bechara, A. & Damasio, A. R. (2005) The somatic marker hypothesis: A neural theory of economic decision. *Games and Economic Behaviour*, 52, 336-372.
- Berglas, S. (1989) Self-handicapping behaviour and the self-defeating personality disorder. In: Curtis, R. R., (Ed.), *Self-defeating behaviours: Experimental research, clinical impressions, and practical implications*. New York: Plenum Press.
- Berglas, S. (1988) The three faces of self-handicapping: Protective self-presentation, a strategy for self-esteem enhancement, and a character disorder. In: Hogan, R. (Ed.), *Perspectives in Personality*, pp. 235-270, Greenwich: JAI Press.
- Bradley, R., Shedler, J., Westen, D. (2006) Is the appendix a useful appendage? An empirical examination of depressive, passive-aggressive (negativistic), sadistic, and self-defeating personality disorders. *Journal of Personality Disorders*, 20, 524-540.
- Brown, L. S. (1992) A feminist critique of the personality disorders. In: Brown, L. S. & Ballou, M., (Eds.), *Personality and psychopathology: Feminist reappraisals*. New York: Guilford Press.
- Carr, A. (2006) *Family therapy: Concepts, processes and practice*. Chichester: John Wiley & Sons.
- Cruz, J., Joiner, Jr, T.E., Johnson, J. et al (2000) Self defeating personality disorder reconsidered. *Journal of Personality Disorders*, 14, 64-71.
- Curtis, R. C. (1989) *Self-defeating behaviours: Experimental research, clinical impressions, and practical implications*. New York: Plenum Press.
- Davis, M. S. & Eicchorn, R. L. (1963) Compliance to medical regimes: A panel study. *Journal of Health and Social Behaviour*, 4, 240-250.
- DeRubeis, R. J., Siegle G. J., Hollon, S. D. (2008) Cognitive therapy versus medication for depression: Treatment outcomes and neural mechanisms. *Nature Reviews Neuroscience*, 9, 788-796.
- Ernst, M., Kimes, A. S., London, E. D., et al (2003) Neural substrates of decision making in adults with attention deficit hyperactivity disorder. *American Journal of Psychiatry*, 160, 1061 - 1070.
- Flett, G. L., Blankstein, K. R., Hewitt, P. L., et al (1992) Components of perfectionism and procrastination in college students. *Social Behaviour and Personality: An International Journal*, 20, 85 - 94.
- Freedman, M.B., Leary, T.F., Ossorio, A.G., et al (1951) The interpersonal dimension of personality. *Journal of Personality*, 120, 143-161.
- Freud, S. (1924) *The economic problem of masochism*. Translated by James Strachey (1961), Standard Edition, 19, London: Hogarth Press.
- Gabbard, G. O. (2000) A neurobiologically informed perspective on psychotherapy. *The British Journal of Psychiatry*, 177, 117-122.
- Haley, J. & Richeport-Haley, M. (2003). *The art of strategic therapy*, New York: Brunner-Routledge.
- Hayes, S. C. & Smith, S. (2005) *Get out of your mind and into your life: The new acceptance and commitment therapy*. Oakland: New Harbinger.
- Haynes, R. B. (1979) Strategies to improve compliance with referrals, appointments and prescribed medical regimes. In: Sackett, D. L. & Haynes, R. B., (Eds.), *Compliance in Health Care*, Baltimore: John Hopkins University Press.
- Heatherton, T. F. & Baumister, R. F. (1991) Binge eating as escape from self-awareness. *Psychological Bulletin*, 110, 86-108.
- Henderson, M. J. (2004) Psychological correlates of comorbid gambling in psychiatric outpatients: A pilot study. *Substance Use and Misuse*, 39, 1341-1352.
- Hope, D. A., Laguna, L. B., Heimberg, R. G., et al (1996/1997) Relationship between ADIS clinician's severity rating and self-report measures among social phobics. *Depression and Anxiety*, 4, 120-125.

- Hope, D. A., Burns, J. A., Hayes, S. A., et al (2010) Automatic Thoughts and Cognitive Restructuring in Cognitive Behavioural Group Therapy for Social Anxiety Disorder. *Cognitive Therapy and Research*, 34, 1-12.
- Hull, J. G. (1987) Self-awareness model. In: Blane, H. T. & Leonard, K. E., (Eds.), *Psychological theories of drinking and alcoholism*. pp. 272-304, New York: Guilford Press.
- Huprich, S. K., Zimmerman, M. A., Chelminski, I. (2006) Should self-defeating personality disorder be revisited in the DSM? *Journal of Personality Disorders*, 20, 388-400.
- Johnson, S. M. & Greenman, P. S. (2006) The path to a secure bond: Emotionally focused couple therapy. *Journal of Clinical Psychology*, 62, 597-609.
- Jollant, F., Bellivier, F., Leboyer, M., et al (2005) Impaired decision making in suicide attempters. *American Journal of Psychiatry*, 162, 304-310.
- Jollant, F., Guillaume, S., Jaussent, I., et al (2007) Impaired decision-making in suicide attempters may increase the risk of problems in affective relationships. *Journal of Affective Disorders*, 99, 59 - 62.
- Kramer, R. M. (1998) Paranoid cognition in social systems: Thinking and acting in the shadow of doubt. *Personality and Social Psychology Review*, 2, 251-275.
- Kupfermann, I., Kandel, E. R., Iversen, S. (2000) Motivational and addictive states. In: Kandel, E. R., Schwartz, J. H. & Jessell, T. M., (Eds.), *Principles of neural sciences*, pp. 999-1014. New York: Mc Graw-Hill.
- Leary, T. (1957) *Interpersonal diagnosis of personality*, New York: Ronald.
- Lester, D. & Hoffman, S. (1992) Self-defeating behaviour, depression, and suicidal preoccupation. *Psychological Reports*, 70, 1106.
- Maggiolo, F., Ripamonti, D., Arici, C., et al, (2002) Simpler regimens may enhance adherence to antiretrovirals in HIV-infected patients. *HIV Clinical Trials*, 3, 371-378.
- Minuchin, S. (1974) *Families and family therapy*. Massachusetts: Harvard University Press.
- Miu, A. C., Heilman, R. M., Houser, D. (2008) Anxiety impairs decision-making: Psychophysiological evidence from an Iowa Gambling Task. *Biological Psychology*, 77, 353 - 358.
- O'Connell, B. (2005) *Solution-focused therapy*. London: Sage Publications.
- Overmier, J. B. & Seligman, M. E. P. (1967) Effects of inescapable shock upon subsequent escape and avoidance responding. *Journal of Comparative and Physiological Psychology*, 63, 28-33.
- Rahman, S., Sahakian, B. J., Cardinal, R. N. et al (2001) Decision making and neuropsychiatry. *Trends in Cognitive Sciences*, 5, 271 - 277.
- Roland, A. & Silver, C. (2010) Conclusion: Interrelating Politics and Paranoia: The Political Exploitation of Paranoid Anxiety. *The Psychoanalytic Review*, 97, 337-356.
- Rubinsztein, J. S., Fletcher, P. C., Rogers, R. D., et al (2001) Decision-making in mania: A PET study. *Brain*, 124, 2550-2563.
- Schill, T. & Sharp, M. (1995) Self-defeating personality and depression: A closer look. *Psychological Reports*, 76, 1167-1170.
- Schlenker, B. R. & Leary, M. R. (1982) Social anxiety and self-presentation: A conceptualization and model. *Psychological Bulletin*, 92, 641-669.
- Skodol, A. E., Oldham, J. M., Gallaher, P. E., et al (1994) Validity of self-defeating personality disorder. *American Journal of Psychiatry*, 151, 560-567.
- Tagliacozzo, D. M. & Ima, K. (1970) Knowledge of illness as a predictor of patient behaviour. *Journal of Chronic Diseases*, 22, 766-775.
- Toh, C. T., Jackson, B., Gascard, D. J., et al (2010) Barriers to Medication Adherence in Chronic Heart Failure Patients during Home Visits. *Journal of Pharmacological Practice and Research*, 40, 27-30.
- Wei, M. & Ku, T. Y. (2007) Testing a Conceptual Model of Working Through Self-Defeating Patterns. *Journal of Counselling Psychology*, 54, 295-305.
- Widiger, T. A. (1995) Deletion of self-defeating and sadistic personality disorder diagnoses. In: Livesley, W. J., (Ed.), *The DSM-IV Personality Disorders*, pp. 359-373. New York: Guilford Press.

-
1. **Dr. Abdul Salam. K. P.**, Ph D, (Corresponding Author), Scholar, Department of Clinical Psychology, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore - 29, E-mail: salampsycho@gmail.com
 2. **Manjula M**, Assistant Professor, Department of Clinical Psychology, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore - 29.
-

Dr. A Venkoba Rao Oration...

TELEPSYCHIATRY: A FEASIBLE OPTION FOR PRIMARY CARE

Savita Malhotra¹

I am deeply honoured and also humbled to have been chosen for this prestigious Dr. A Venkoba Rao Oration of the Indian Association for Social Psychiatry (IASP). Prof. A Venkoba Rao, a teacher, researcher and an academician par excellence inspired generations of psychiatrists in India. He founded the IASP. In addition to being a biologist he had tremendous faith in social underpinnings of psychiatry. I am honoured to deliver this Oration today, dedicating it to my teachers, one of whom: Dr. VK Varma is present here today.

I have chosen to speak on "Telepsychiatry: a feasible option for primary care". It is a coincidence that the theme of the 18th National Conference of IASP, being held in Patna on Nov 25-27, 2011 is "Bridging the treatment gap in mental health". This is precisely what I am going to address in my paper. It is evident that we as responsible and sensitive professionals are extremely aware and concerned about the state of mental health care at the primary care level in India. Psychiatrists sitting in tertiary care centres or in corporate hospitals in bigger cities can feel content with what they do. But it is a fact that those who reach these centres are only a small fraction of those who need care. Most others can never access mental health care.

MENTAL HEALTH AND GENERAL HEALTH

Health services in India are structured around and delivered through the agency of primary health centre at the block level with the backup of specialist care provided at the district level. This model was proposed by the Bhole Committee in 1948 and has since been followed. Review of this system has brought forth several lacunae and pitfalls including those, related to the poor infrastructure, deficient manpower, missing coordination, and insufficient resource allocation at all levels. Thus the primary health centres and district hospitals in the country continue to suffer from inadequacy in functioning and poverty of resources. Mental health on the other hand is a bigger loser or a total non-starter in the current scheme of things at the primary care level. Mental health is not covered or integrated in general health, because mental health has been a late entrant in health care system and that most health professionals are ill-equipped to deal with mental disorders. Further, mental health

care has not been extended the benefit of resource allocation in the planning process. As a result, mental health care at the primary care level is extremely poor if not absent.

Considerable attention has been drawn to the importance of mental health in general health in recent years. Interconnectedness between physical illnesses and mental disorders is multifold and multifaceted involving several areas of health and disease. Mental disorders increase the risk for physical illnesses both communicable and non communicable; these also contribute to intentional and unintentional self harm including mortality. On the other hand, physical illnesses increase the risk for mental disorder. Thus, mental health is an integral part of general health, to the extent that there can no health without mental health (Prince et al, 2007).

MENTAL MORBIDITY

Mental disorders are an important cause of disability and mortality. According to a WHO's report of 2005, 31.7% of all years lived with disability are attributable to neuropsychiatric disorders such as unipolar and bipolar depression, alcohol use disorder, schizophrenia and dementia.

Epidemiological studies across the world have shown that mental disorders are highly prevalent - with life time prevalence of 49% in the adult population (NIMH, 2010) in some estimates. In India, a meta-analysis of 13 epidemiological studies (n=33,572) in mental disorders found a psychiatric morbidity of 58.2 per 1000 general population (Reddy & Chandrasekar, 1998). Another meta-analysis including 15 epidemiological studies reported a total psychiatric morbidity of 73 per 1000 general population (Ganguli, 2000). As a median value derived from these two studies i.e. Reddy & Chandrasekar, (1998) and Ganguli (2000), 65/1000 has been considered as a conservative estimate of prevalence of mental disorders in India. However there are differences in reported rates for rural vs urban population. Reddy and Chandrashekhar (1998) reported urban rates to be twice (79.1/1000) as compared to rural rates (37.1/1000); whereas Ganguli (2000) found a minor difference in rural-urban rates which was 3.5/1000 higher for urban population as compared to rural population. Moreover, the rural rates far

exceeded the urban rates for hysteria (by 56%), schizophrenia (by 31%) and affective disorders (by 10%) (Ganguli, 2000). In addition, mental disorders often run a chronic course and are a leading cause of disability (Prince et al, 2007). The loss in terms of Disability- Adjusted Life Years (DALYs) is enormous. According to the World Health Organization's report in 2005, neuropsychiatric disorders contributed to 28% of all the years lost-in-disability amongst the non-communicable diseases. The direct costs of treatment and indirect costs associated with mental disorders are large. Mental illness has been reported as one of the five most expensive conditions between the years 1996 and 2006 in the U.S. (Soni, 2009). In India, the report on burden of disease (Gururaj et al, 2005) considered prevalence rate of 65 per 1000 population (median of the two epidemiological studies) for the purpose of estimating the number of persons with any behavioural and mental disorders. By this prevalence rate, 6.5 crore of Indian population would require professional help. If the treatment for each patient would require INR 300 per month, the total cost will be 1,950 crore per month, translating to 23,400 crore INR per year (Math et al, 2005). According to the report of the National Commission on macroeconomics and health (2005), the estimated cost of treating single episode of mood disorder alone is Rs. 3000-6000 per year. Moreover and equally important are the indirect costs involved that include loss of daily wages, cost of traveling to access the health care service and also loss of earnings of the caregiver accompanying the mentally ill for treatment. Besides these economic considerations, the consequences in terms of stigma, social isolation and psychological burden on the patient and family are enormous.

MENTAL HEALTH GAP

Despite this high prevalence and potentially disabling consequences of mental disorders, most people suffering from these disorders remain either untreated or poorly treated (Kao, 2006). The main reason for non-treatment includes low levels of help seeking that may be due to perceived stigma, financial constraints, ignorance, illiteracy, lack of insight into the illness, lack of recognition of the seriousness of mental illness and lack of understanding about the benefits of treatment. Besides these, the major hindrance to seeking treatment is the non-availability of mental health facilities. This is especially true in rural and geographically isolated areas which remain largely under-served. In India, specialized mental health services are extremely deficient in comparison to the general health care facilities (WHO-AIMS report, 2006). There is a

gross deficiency in the availability of skilled mental health professionals leading to a huge mental health gap. In 2002, the mental health resource mapping in India (Agarwal, 2004) calculated that 2219 psychiatrists were available nation-wide. The more recent figures reveal a marginal increase in the total number of psychiatrists to about 2800. This is in stark contrast to the estimated requirement of 9696 professionals (Gururaj et al, 2005). The number of psychiatrists, psychiatric nurses, psychologists and social workers are 0.2, 0.05, 0.03 and 0.03 per 1,00,000 population respectively and the total psychiatric beds were 0.25 per 10,000 population (WHO-AIMS report, 2006). Only 29% of mental health needs are met by the available manpower. Furthermore, this small scale of infrastructure and human resources are unequally divided with huge urban-rural discrepancies (WHO-AIMS report, 2006). Most mental health care is based in institutional settings and not in community setting. Moreover, there is no link between the institutional care and the primary care. People living under socio-economic deprivation have the highest need for mental health care but lowest access to it, thus further compounding the mental health gap (Saxena et al, 2007).

To cater to the needs of under served populations in rural and geographically isolated areas, strengthening of trained manpower has been considered pivotal. For this purpose, measures such as increasing the number of training institutes and, upgrading and strengthening the existing ones, increasing psychiatric training component during under-graduate course and training of primary health care workers have been proposed and partially implemented in the mental health programmes (Nagaraja & Murthy, 2008). The adequacy of these measures that are laudable in every sense, to fulfill the need in reality in a reasonable time frame is highly questionable for various reasons. It involves a systematic multi-pronged action plan that requires a high degree of co-ordination at multiple levels across departments of health, medical and paramedical education, human resource development and planning, finance and so on. In a sectorized system of governance as is present in our country, such a holistic and coordinated action is hardly possible in reality.

Current systems of health care in India have fallen short of expectations. There is therefore, need to think innovatively with a vision to surpass these hurdles in the best possible manner. Linking the tertiary care with primary care is the biggest challenge facing the health care planners in India. Telepsychiatry, which is one of the functional domains within

Telemedicine, is a feasible option for this objective. Now, with the ushering in of technology, the health care services can be taken to the doorstep by means of 'Telepsychiatry' which can serve both clinical as well as educational purposes.

TECHNOLOGY IN HEALTH CARE AND TELEPSYCHIATRY

In recent years, progress in science has touched everyday life of a common man in several areas. Electronics and information-communication technology has found application in various fields such as business, finance, banking, management, education and so on. E-health is yet another area of application where medicare is being extended remotely to users for specialist care. E-mental health care or telepsychiatry could be a yet another domain of application.

Telepsychiatry or Telemental health or E-mental health, is generally defined as the use of information and communication technology to provide or support psychiatric services across distances. Using advanced technologies, mental health professionals can render their expert services to patients in far reach areas, partly solving the problem of mal-distribution of specialty care. Such technology has been used for psychiatric consultation, assessment and diagnosis, medication management and management by individual and group psychotherapy. In addition, telemental health has been used for the purposes of education, storage and accessibility of medical data and research.

The use of technology to provide emergency and at times routine care has been noted since the fifth and sixth decades of the last century. Telepsychiatry is considered as the most active application of telemedicine (ATA, 2009) and telemedicine in turn is defined as the practice of medical care using interactive audio, visual and data communications (Wootton et al, 2006). Use of telephone (for consultation, crisis management, psychotherapy, referral), cell phone text messaging and two-way closed circuit television have been integral in telepsychiatry communication and are precursors to the more sophisticated and latest distance technologies applying the internet. Electronic mail (e-mail), instant messaging, online chat and forum, professional advice via websites and blogs are amongst the different ways in which internet has been used. Online and virtual chat rooms offer a forum where people interact with others including mental health professionals to share their experiences. With advancement in technology, video-conferencing has become an important modality in the field of telepsychiatry as it permits live, two-way interactive, full-color, simultaneous video, audio, and

data communication (De las Cuevas et al, 2006). There are two main types of communication technologies; synchronous, meaning live, two-way interactive transmission to a remote area; and asynchronous (store-and-forward), which transmits clinical information via e-mail or Web applications for later review by a specialist. Synchronous forms of communication including telephony, online chat forum and video-conferencing have the advantages of real-time, live interaction whereby response is immediate (Melaka & Edirippulige, 2009). Also, with improving technologies the quality of audio and video real-time interaction has improved. As against synchronous forms of communication, asynchronous communication involves non-real time or 'store and forward' interaction. The information can be transferred in the form of data, audio, video clips or recordings. Electronic mail is the most commonly used form of asynchronous communication in telemedicine services and has the advantages of being relatively inexpensive and does not need any extra or special hardware support. Both synchronous and asynchronous communications have been used for consultation, diagnosis and management, follow up, psychotherapy, education and supervision and specialist support to medical professionals in rural and outreach areas (Hilty et al, 2004).

USES OF TELEPSYCHIATRY

The greatest promise of telepsychiatry is making mental health services accessible to underserved populations. However, whether or not this alternative is feasible, efficacious and effective remains to be seen. In the last decade, there is a growing interest in this field and with it there is growing evidence in favour of telepsychiatry. Documented work includes novel clinical demonstrations and current program descriptions, reliability of clinical assessments, clinical outcomes, satisfaction of patients and clinicians, quality of life and cost and cost-effectiveness. However, the majority of the documentation covers program descriptions and assessment of satisfaction. Of late, there have been some randomized controlled trials comparing clinical outcomes of patients enrolled in telepsychiatry program with those being treated as usual – in a 'face to face' setting. Lesser evidence exists for the cost effectiveness of this form of health care service and needless to say, this shall become the deciding factor for the future utility of telepsychiatry. Most of the large scale data and systematic analysis pertain to videoconferencing as a modality of telemental health.

Sporadic reports of use of communication technology in clinical psychiatry have existed since 1950s. Telepsychiatry has been reported to be used for psychiatric assessment, psychiatric follow up and psychotherapy (CBT, supportive therapy, group therapy) (Monnier et al, 2003, García-Lizana & Muñoz-Mayorga, 2010). Also, it has been used for neuropsychological assessments though the results have been equivocal with less satisfaction of psychologists reported by some (Schopp et al, 2000). Telepsychiatry has found place in delivering services to geriatric population (Sumner, 2001) who have poorer accessibility to specialist health care institutions. However, sensory impairments in this group may hinder the effective use of the communication technologies. In a similar manner, assessment, consultation and educational services have been conducted in the field of child and adolescent psychiatry (Pesamaa et al, 2004). Telepsychiatry projects involving prison inmates (Zaylor et al, 2000, Brodey, 2000) where delivering mental health care from distance is considered more feasible (to avoid transporting the prisoners to the specialist institute) have been initiated.

A recent systematic review (García-Lizana & Muñoz-Mayorga, 2010) of 10 randomised controlled trials (RCT) comparing videoconferencing to “face to face” assessment included 1054 patients from general psychiatric services and with various mental illnesses; namely, depression, panic disorder, posttraumatic stress disorder, bulimia nervosa and schizophrenia. In general, each study focused on diagnosis and follow up. Five of these studies used cognitive-behavioural therapy, while the rest did not specify a psychotherapeutic approach. The largest study (O’Reilly et al, 2007) (n=495) focused on diagnosis and interventions that included medication management, psychoeducation, counselling and triage to other local services. The authors found no difference in effectiveness between the two groups. The unequivocal finding of the studies was that there was no significant difference in level of symptoms in the intervention (telepsychiatry) and control groups.

Video consultations require special technical setup and relatively higher financial investment. Besides videoconferencing, telephone and electronic mail have been evaluated for their effectiveness in rendering consultation. These modalities allow primary care physicians to gain ready access to specialists in order to enhance the quality of local care for patients (Hilty, 2004). A RCT was conducted (Hilty, 2007) in patients with depression comparing ‘usual’ care with disease management module using telephone to care using telephone

plus monthly tele-video psychiatric consultation emphasizing primary care physician skill development. The authors found that though there was improvement in both groups, there was a trend towards significance in the latter group. Also, patient satisfaction and retention was greater in the intensive group. The authors suggested that intensive modules using telepsychiatric educational interventions toward primary care physicians may be superior.

‘Store and forward’ technology, has been used successfully to provide mental healthcare in rural areas in developing countries (Monnier et al, 2003; Hilty et al, 2006). As a matter of fact, the UC–Davis Center for Health and Technology had embarked upon the task to provide telepsychiatry service to rural sites with a major goal of assisting the primary care physicians with triage of cases, using urgent telephone and e-mail consultations for clinical advice. Another important goal was to shift the method of consultation from the more time-consuming videoconferencing consultation to the more efficient e-mail and telephone consultation (Carr, 1997).

COST EFFECTIVENESS

There is preliminary evidence that telepsychiatry programs can be less expensive for patients as it proposes to reduce expenses incurred in traveling, time taken for traveling and time taken off from work. Regarding RCTs evaluating cost effectiveness of videoconferencing, O’Reilly (2007) found that on an average the cost was 10% less in intervention group. On the other hand, Ruskin et al (2004) found that the cost was lower in the control group. It has also been reported (Dunn, 2000) that establishing a high-speed wide-area network, that allows for telepsychiatry along with other telemedicine activities could reduce monthly telecommunications costs by approximately 67 percent. However, whether the one time heavy investment would break even and if so in how much time also depends on other factors such as strength of the patient population that would be served. Electronic mail and telephony appear as relatively cheaper alternatives as these do not require any additional technical support. Nevertheless, more systematic studies involving both synchronous and asynchronous technologies are needed to evaluate the cost effectiveness of telepsychiatry projects.

LEGAL AND ETHICAL ISSUES

The major barriers to the use of telepsychiatry applications have been legal and ethical difficulties. As no clear guidelines exist for various modalities of telepsychiatry, the principle of

best service offered has to be ensured. There is question of professional responsibility and duty of care as to who would it lie on, whether on the primary provider or on the consultant specialist? There is need to test the cultural acceptance of telepsychiatry by the users (patients and families). A face to face encounter with a doctor has the advantage of human interaction and empathy as a leading force in health and healing. Quality of tele-service on account of issues such as bandwidth or teleconnectivity etc can also hinder the patient's satisfaction levels. In addition, position of telepsychiatry in relation to issues such as management of unstable violent or impulsive patients, of patients who require special monitoring or of those who are visually, hearing or cognitively impaired or in cases where 'breaking of news' is imperative is not clear (Pineau et al, 2006). In addition, informed consent, privacy and confidentiality are extremely important. It has been strongly suggested that the clinicians must ensure that the electronic information is effectively protected against improper disclosure when it is stored, transferred, received or destroyed (Stanberry, 2001). Security of information is another area of concern. Use of secure line and servers and use of encryption software has been recommended (AACAP, 2008). Clear guidelines and recommendations covering ethical issues such as informed consent and confidentiality, use of technology, procedures for conducting assessment, etc., would be necessary.

TELEPSYCHIATRY IN INDIA

The majority of projects and programs in telepsychiatry have been initiated in the developed nations like America, Australia, Canada and certain European countries. Telemedicine though, has found its foothold in developing or low and middle income (LAMI) countries. Telepsychiatry has emerged initially as an offshoot of telemedicine, but may soon grow as it seems to be a promising answer to the problems of mental health care in LAMI as discussed at the very start.

Certain modalities of telepsychiatry, mainly videoconferencing, though seemingly the best technology for clinical care require more revenue. In addition, live real-time interaction requires organizational commitment, infrastructure and availability of specialist professionals. In LAMI nations, where already there is a dearth of mental health professionals, burdening the existing manpower might prove to be counter productive. On the other hand, training and supervision of primary care physicians through the use of internet (e.g. e-mail) might be

gainful in terms of appropriate use of human resource and cost-effectiveness.

As mentioned earlier, besides cost effectiveness, the asynchronous technology gives an unique opportunity to train and give specialist consultation. Also, such consultation to front-line workers like physicians and paraprofessionals available in the community (in comparison to direct consultation to patients/clients) seems to be a more efficacious model for service and program consultation (Broder, 2004) In addition, an important ethical issue of duty of care can be addressed by consultant services rather than therapist services. The consultant does not directly assume responsibility (which may be difficult to carry out for e.g. in emergency situations), but at the same time provides support to the primary care professionals (Sharan & Malhotra, 2007). Also, this might resolve the 'tele' versus 'face to face' care controversy.

The problems of under-diagnosing and under-treating persons with mental illness and the lack of trained manpower at grass root level are enormous and intertwined. It has been estimated that not more than 10% of those who need urgent mental health-care are receiving the required help with the existing services. Further, though reiterative, it must be noted that the situation is worse in rural areas as the concentration of services and facilities is greater in the cities. Also, it has been recognized that a simple extension of the present system of care will not be able to ensure adequate services to the vast majority of the Indian population in the near foreseeable times to come (Murthy, 2005). Broadly, the answer to the problem lies in establishment and strengthening of psychiatric units at district level and training different categories of health personnel in basic psychiatric and mental health skills. The former approach would definitely improve the higher level care but that it alone tackles the huge discrepancy in demand and supply appears unrealistic. These pertinent matters are reflected in the objectives and approaches of the National Mental Health Programme (NMHP) (Government of India, 1982). To ensure the availability and accessibility of minimum mental health-care for all in the foreseeable future, particularly to the most vulnerable and underprivileged sections of the population and to apply mental health knowledge in general health-care and in social development are the chief objectives of the NMHP. To this end, diffusion of mental health skills to the periphery of the health service system and thus, integration of mental health with primary health care are the main strategies.

DAWN OF A NEW ERA

Telepsychiatry appears to be a promising method to transfer these objectives into sustainable reality. Through Telepsychiatry, primary care physicians and general health care workers can be trained and empowered to deliver mental health care. Thus, mental health can be integrated in general health services through the agency of the existing manpower. In order to train and support the primary service providers, it has been suggested by Sharan & Malhotra (2007) that developing software packages with codified medical knowledge as an aid to assessment, diagnosis and management will be necessary. In addition, a model of logical decision support system (for diagnosis and management) with facilities for real time as well as store forward (web based) video recording, teleconferencing, and creation of electronic medical records will be required. Further, its application also calls for optimizing and expanding the scope of duties of psychiatrists so as to include training and supervision of general physicians providing mental health care. In keeping with the above objectives a project involving development and implementation of a model telepsychiatry application for providing mental health care in remote areas has been started in joint collaboration between Department of Science and technology, Govt. of India and Postgraduate Institute of Medical Education and Research, Chandigarh. The project involves development of telepsychiatry software for diagnosis and management of common psychiatric disorders in adults and children. Emphasis is on codifying medical knowledge; providing decision support system for diagnosis and treatment; and eventual narrowing of mental health gap. Also, India, a leader in global economy and technology hub must take a parallel initiative to set up procedural guidelines and recommendations as the field grows. As telepsychiatry gains momentum, well planned comparative studies assessing diagnostic reliability, efficacy and cost-effectiveness should also be carried out in developing countries to further the progress of the field tailored to the specific needs and resources of the developing world.

REFERENCES

- Agarwal, S.P. (2004) Mental Health: An Indian Perspective 1946-2003. Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India: New Delhi.
- American Academy of Child and Adolescent Psychiatry (2008) Practice Parameter for Telepsychiatry with Children and Adolescents. *Journal of American Academy of Child and Adolescent Psychiatry*, 47, 1468-1483.
- American Telemedicine Association (2009) Practice guidelines for videoconferencing-based telemental health. Retrieved from <http://www.americantelemed.org>.
- Broder, E., Manson, E., Boydell, K., et al (2004) Use of telepsychiatry for child psychiatric issues: First 500 Cases. *Canadian Psychiatric Association*, 36, 11-15.
- Brodey, B.B., Claypoole, K.H., Brodey, I.S., et al (2000) Satisfaction of forensic psychiatric patients with remote telepsychiatric evaluations. *Psychiatric Services*, 51, 1305-1307.
- Carr, V.J., Faehrmann, C., Lewin, T.J., et al (1997) Determining the effect that consultation-liaison psychiatry in primary care has on family physicians' psychiatric knowledge and practice. *Psychosomatics*, 38, 217-229.
- De Las Cuevas, C., Arredondo, T., Cabrera, M. F., et al (2006) Randomized clinical trial of telepsychiatry through videoconference versus face-to-face conventional psychiatric treatment. *Telemedicine and e-Health*, 12, 341-350.
- Dunn, B.E., Choi, H., Almagro, U.A., et al (2000) Telepathology networking in VISN-12 of the Veterans Health Administration. *Telemedicine Journal and E-Health*, 6, 349- 354.
- Ganguli, H.C. (2000) Epidemiological finding on prevalence of mental disorders in India. *Indian Journal of Psychiatry*, 42, 14-20.
- García-Lizana, F. & Muñoz-Mayorga, I. (2010) What About Telepsychiatry? A Systematic Review. *Primary Care Companion to Journal of Clinical Psychiatry*, 12, PCC.09m0083.
- Government of India (1982) National Mental Health Programme for India. Ministry of Health and Family Welfare: New Delhi.
- Gururaj, G., Girish, N., Isaac, M.K. (2005) Mental, neurological and substance abuse disorders: Strategies towards a systems approach, NCMH Background Papers-Burden of Disease in India; Available from: http://whoindia.org/en/section102/section201_888.htm. Ministry of Health & Family Welfare: New Delhi.
- Hilty, D. M., Marks, S. L., Urness, D., et al (2004) Clinical and educational telepsychiatry applications: A review. *Canadian Journal of Psychiatry*, 49, 12-23.
- Hilty, D.M., Ingraham, R.L., Yang, S.P., et al (2004) Multispecialty phone and email consultation to primary care providers for patients with developmental disabilities in rural California. *Telemedicine Journal and E-Health*, 10, 413-421.
- Hilty, D.M., Marks, S., Wegelin, J., et al (2007) A randomized, controlled trial of disease management modules, including telepsychiatric care, for depression in rural primary care. *Psychiatry (Edgmont)*, 4, 58-65.

- Hilty, D.M., Yellowlees, P.M., Cobb, H.C., et al (2006) Use of secure e-mail and telephone: psychiatric consultations to accelerate rural health service delivery. *Telemedicine Journal and E-Health*, 12, 490-495.
- Kao, S.C., Lin, C. E., Chiu, N.Y. (2006) A proposed e-care center for mental health interventions. *Journal of Psychiatric Practice*, 12, 180–186.
- Math, S.B., Chandrashekar, C. R., Bhugra, D. (2007) Psychiatric epidemiology in India. *Indian Journal of Medical Research*, 126, 183-192.
- Melaka, A. & Edirippulige, S. (2009) Psych-technology: A Systematic Review of the Telepsychiatry Literature. *Psychiatry On Line, The International Forum for Psychiatry*.
- Monnier, J., Knapp, R.G., Frueh, B.C. (2003) Recent Advances in Telepsychiatry: An Updated Review. *Psychiatric Services*, 54, 1604–1609.
- Murthy, R.S. (2005) The National Mental Health Programme: Progress and Problems. In: Agarwal, S.P. (Ed.) *Mental Health: An Indian Perspective, 1946–2003*. pp 75-91, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India: New Delhi.
- Nagaraja, D. & Murthy, P. (2008) *Mental Health Care and Human Rights*. National Human Rights Commission, New Delhi and National Institute of Mental Health and Neuro Sciences, Bangalore.
- National Commission on Macroeconomics and Health (2005) Report of the National Commission on Macroeconomics and Health. Ministry of Health & Family Welfare, Government of India, New Delhi.
- National Institute of Mental Health (2010) The numbers count: Mental disorders in America. Retrieved from <http://www.nimh.nih.gov/health/publications/thenumbers-count-mental-disorders-in-america/index.shtml>
- O'Reilly, R., Bishop, J., Maddox, K., et al (2007) Is telepsychiatry equivalent to face-to face psychiatry? Results from a randomized controlled equivalence trial. *Psychiatric Services*, 58, 836-843.
- Pesämaa, L., Ebeling, H., Kuusimäki, M.L., et al (2004) Video-conferencing in child and adolescent telepsychiatry: a systematic review of the literature. *Journal of Telemedicine and Telecare*, 10, 187-192.
- Pineau, G., Moqadem, K., St-Hilaire, C., et al (2006) Telehealth: Clinical guidelines and technical standards for telepsychiatry. Retrieved from <http://www.bibliotheque.assnat.qc.ca>
- Prince, M., Patel, V., Saxena, S., et al (2007) Global Mental Health 1 - No health without mental health, *Lancet*, 370, 859–877.
- Reddy, M.V. & Chandrasekar, C.R. (1998) Prevalence of mental and behavioural disorders in India: A metaanalysis. *Indian Journal of Psychiatry*, 40, 149-157.
- Ruskin, P.E., Silver-Aylaian, M., Kling, M.A., et al (2004) Treatment outcomes in depression: Comparison of remote treatment through telepsychiatry to in-person treatment. *American Journal of Psychiatry*, 161, 1471–1476.
- Saxena, S., Thornicroft, G., Knapp, M. et al (2007) Resources for mental health: Scarcity, inequity and inefficiency: *Global Mental Health – 2. Lancet*, 370, 878-889
- Schopp, L., Johnstone, B., Merrell, D. (2000) Telehealth and neuropsychological assessment: New opportunities for psychologists. *Professional Psychology, Research, and Practice*, 31, 179–183.
- Sharan, P. & Malhotra, S. (2007) Telepsychiatry: The Bridge across the Access Gap in Child and Adolescent Mental Health. *Journal of Indian Association of Child and Adolescent Mental Health*, 3, 18-20.
- Soni, A. (2009) The five most costly medical conditions, 1996 and 2006: Estimates for the U.S. Civilian, noninstitutionalized population (Statistical Brief # 248). Retrieved from: <http://meps.ahrq.gov>
- Stanberry, B. (2001) Legal, ethical, and risk issues in telemedicine. *Computer Methods and Programs in Biomedicine*, 64, 225-233.
- Sumner, C.R. (2001) Telepsychiatry: Challenges in rural aging. *Journal of Rural Health*, 17, 370–373
- WHO-AIMS Report on Mental Health System in Uttarkhand, India. (2006) WHO and Ministry of Health, Dehradun, Uttarkhand, India.
- Wootton, R., Craig, J., Patterson V. (2006) *Introduction to Telemedicine*. London: Royal Society of Medicine Press.
- World Health Organization (2005) *WHO global report: Preventing chronic diseases: A vital investment*. Geneva: World Health Organization.
- Zaylor, C., Whitten, P., Kingsley, C. (2000) Telemedicine services to a county jail. *Journal of Telemedicine and Telecare*, 6, S93– S95.

1. **Dr. Savita Malhotra**, MD, PhD, FAMS, Professor and Head, Department of Psychiatry, Postgraduate Institute of Medical Education and Research, Chandigarh, India

Review Article...

PSYCHOANALYSIS: RECENT DEVELOPMENTS

Nizammudin Parvez¹, Vidya K L², S Haque Nizamie³

Abstract

Psychoanalysis is a body of ideas given by Sigmund Freud. Ever since its introduction, psychoanalysis continues to influence our understanding of human mind. It made a very significant part of the early diagnostic systems in terms of understanding the cause of a particular psychological illness and helped in their treatment on the basis of a systematized set of theories in a very comprehensive manner. After its criticism as being unscientific, its influence on the diagnostic systems gradually declined and psychiatry made a shift from psychodynamic point of view of a disease to biopsychiatry. With advancements in technology, modern neuroscience is rediscovering some of Freud's most basic ideas about human psyche and its functioning. There is growing interest in the integration of psychoanalysis and neuroscience within a single framework and psychiatry is looking forward to the upcoming ICD-11 and DSM-V which have a challenging task of balancing the descriptive and theory based approaches. This article describes the basics of psychoanalysis and its influence on diagnostic systems. It also discusses some of the disadvantages of current diagnostic manuals and finally ends with a proposal for the upcoming DSM-V.

Key words: *Psychoanalysis, DSM, ICD, neuroscience, dimensional approach*

INTRODUCTION

The concept of 'mental disorder' lacks a consistent operational definition that is relevant to all situations (APA, 2000). It is used in ICD-10 to mean the presence of clinically recognizable set of behaviour or symptoms associated with distress and interference in personal functions. In DSM-IV mental disorder is conceptualized as clinically significant psychological syndrome or behavioural pattern in an individual, associated with distress or disability, loss of freedom or death. So overall judgment of psychiatric disorder depends on several factors, each one is at least partially subjective (Morgan et al, 2008).

According to Jaspers, there are entities which have clear margins with normality but not among themselves, e.g. bipolar affective disorder and schizophrenia. Few others do not have clear limits either with normality or among themselves, e.g. personality disorders. If these disorders were to be independent categories, coexistence of other disorders should have been by chance. That has not been the case, rather comorbidity is almost a rule than exception e.g. anxiety disorders and depression. Results from family and twin studies suggest common etiological factors underlying both conditions (Merikangas, 2003).

In the last two decades, there has been an increasing tendency to define mental problems more and more on the basis of presenting symptoms and their patterns, with overall personality functioning and levels of adaptation playing a minor role. The whole person has been less visible than the various disorder constructs on which researchers attempt to find agreement. Recent reviews of this effort raise the possibility that such a strategy was misguided. Emerging evidence suggests that oversimplifying mental health phenomena in the service of attaining consistency of description (reliability) and capacity to evaluate treatment empirically (validity) may have compromised the goal of a more scientifically sound understanding of mental health.

Psychiatry looks forward to the upcoming ICD-11 and DSM-V which have a great task of balancing the descriptive and theory based approaches, i.e. a classification of mental disorders with a holistic approach based on a theory regarding the etiology or mechanisms of psychopathology (psychodynamic, behavioural, humanistic, existential perspectives) as well as heuristic framework for describing the syndromic entities (First & Pincus, 2009). The words psychodynamic and psychoanalysis are often confused. Sigmund Freud's (1856-1939) theories were psychoanalytic, whereas the term 'psychodynamic'

refers to both his theories and those of his followers. The psychoanalytic tradition has a long history of examining overall human functioning in a comprehensive way, with an emphasis on both dimensionality and context of mental problems.

PSYCHOANALYSIS

Psychoanalysis has three main components: a method of investigation of the mind and the way one thinks; a systematized set of theories about human behaviour; a method of treatment of psychological illness. In psychoanalysis, the analytic patient verbalizes thoughts, including free associations, fantasies, and dreams, from which the analyst induces the unconscious conflicts causing the patient's symptoms, and interprets them for the patient to create insight for resolution of the problems. The analyst's interventions typically include confronting and clarifying the patient's pathological defenses, wishes and guilt, through the analysis of conflicts, including those contributing to resistance and those involving transference onto the analyst. Psychoanalytic treatment can clarify how patients unconsciously are their own worst enemies, how unconscious, symbolic reactions that have been stimulated by experience are causing symptoms.

The psychoanalytic approach assumes that our behaviour and feelings are powerfully affected by unconscious motives and that every behaviour has a cause (usually unconscious), even slips of the tongue and therefore each behaviour is determined. It proposes that behaviour is motivated by two instinctual drives: Eros (the sex drive & life instinct) and Thanatos (the aggressive drive & death instinct). It describes personality as being made up of three parts (i.e. tripartite) the id, ego and super-ego. Parts of the unconscious mind (the id and superego) are in constant conflict with the conscious part of the mind (the ego), and personality is shaped as the drives are modified by different conflicts at different times in childhood (during psychosexual development).

After Freud, a new group of psychoanalysts began to explore the function of the ego, led by Hartmann, Kris, Rappaport and Lowenstein, the group built upon understandings of the synthetic function of the ego as a mediator in psychic functioning. Hartmann in particular distinguished between autonomous ego functions and synthetic functions. Carl Gustav Jung (1875-1961) gave analytic psychology. He described the collective unconscious, two types of personality organization: introversion and extroversion. Jung saw all psychopathology as an attempt at healthy adaptation (Mohl & Brenner, 2009).

Melanie Klein (1882-1960) evolved a theory of internal object relations that is intimately linked to drives. She postulated that ego undergoes a splitting process to deal with the terror of annihilation. She was instrumental in the development of child analysis. Jacques Lacan (1901-1981) attempted to integrate the intrapsychic concepts of Freud with concepts related to linguistics and semiotics (the study of language and symbols). His principal concept is that the unconscious is structured as a language. Erik Erikson's (1902-1994) formulations are based on the concept of epigenesis. It holds that development occurs in sequential, clearly defined stages, and that each stage must be satisfactorily resolved for development to proceed smoothly. If successful resolution of a particular stage does not occur, all subsequent stages reflect that failure in the form of physical, cognitive, social, or emotional maladjustment. He conceptualized eight stages of ego development across the life cycle. Heinz Kohut (1913-1981) viewed the development and maintenance of self-esteem and self-cohesion as more important than sexuality or aggression. He described that development was supposed to proceed toward object relatedness and away from narcissism. Otto Kernberg (1928) proposed the term 'Borderline Personality Organization' for patients characterized by a lack of an integrated sense of identity, ego weakness, absence of super ego integration, reliance on primitive defense mechanisms such as splitting and projective identification. Sandor Rado viewed the psychic apparatus as an organ of adaptation. Effective adaptation is psychological health, and psychological illness or maladaptive behaviour is a failure of this adaptive mechanism. Behaviourists believe that our actions are determined by our life experiences rather than physical, genetic or unconscious forces. Abnormality is seen as the development of maladaptive behaviour patterns, established through classical and operant conditioning or through social learning. Most learned behaviours are adaptive, helping people to lead happy, productive lives, but maladaptive and undesirable behaviours can be acquired in the same way. Existentialism is concerned with how individuals relate to their objective world, to other human beings and to their own sense of self. It emphasizes the importance of time- past and future, particularly the present in understanding oneself and one's world. Major existential themes include, living and dying; freedom, responsibility and choice; isolation and loving and meaning and meaninglessness. How honestly and authentically individuals deal with these themes affect their existential and psychological well being (Sharf, 2008). Humanistic approaches share a positive evaluation of human

nature and emphasize its unique and uniquely human aspects and talk about maladjustment in terms of failures and blocks to the full growth and development of the individual. To sum it up, psychodynamic model continues to focus on the uniqueness of the individual patient. Above all, it is interested in the person with illness rather than the illness alone (Gabbard, 2009).

PSYCHOANALYSIS IN INDIA

By 1914, Girindra Shekar Bose developed his psychoanalytic ideas almost independently of Freud. His techniques included suggestion, recall of memories, and encouraging associations (Sinha, 1966). In 1921 he published "*Concept of Repression*". Its main thesis revolves around what he called the theory of opposite wishes. He founded the Indian Psychoanalytic Society in 1922 and, with the assistance of Ernest Jones, established its affiliation with the International Psychoanalytic Association. Two major developments in psychoanalytic practice were the establishment of Lumbini Park Mental Hospital in 1940, the first inpatient psychotherapy facility in India, and the publication of Samiksha (Sanskrit for 'analysis') in 1947, the society's official journal in English (Ramana, 1964).

The gradual decline of psychoanalysis in India, after its independence from the British in 1947, was partly related to the acute economic crisis in the society. With the increasing need to attend to these external realities, the physical and emotional resources involved in the practice and teaching of psychoanalysis became even more limited than before (Sinha, 1966). By the mid-1950s, psychoanalysis, as developed by Bose and the pioneering first and second generations of Indian psychoanalysts, had entirely lost its foothold in academic psychiatry. More unfortunately, there was a demise of originality in psychoanalytic thought specific to Indian mental life.

PSYCHOANALYTICAL APPROACH CRITICISMS

The greatest criticism of the psychoanalytical approach is that it is unscientific in its analysis of human behaviour. Many of the concepts central to Freud's theories are subjective and are impossible to be scientifically tested. For example, how is it possible to scientifically study concepts like the unconscious mind or the tripartite personality? In this respect the psychodynamic perspective is unfalsifiable as the theories cannot be empirically investigated. Furthermore, most of the evidence for psychodynamic theories is taken from Freud's case studies that are based on studying one person in detail, and with reference to Freud the individuals in question are most

often middle aged women from Vienna (i.e. his patients). This makes generalizations to the wider population (e.g. the whole world) difficult.

EVOLUTION OF DSM IN RELATION TO PSYCHOANALYSIS

In 1952, the American Psychiatric Association (APA) published the first edition of the DSM (DSM-I), replacing the collection of diagnoses approved by the APA in 1933. DSM-I was heavily influenced by psychoanalytic theory and by Adolf Meyer's emphasis on individual failures of adaptation to biological or psychosocial stresses as the cause of psychiatric illness. The world war II reinforced the belief that environmental stress contributed to mental maladjustment and that purposeful human interventions could alter psychological outcomes (Grob, 1991). Successfully treating wartime neuropsychiatric casualties with psychosocial interventions strengthened psychiatrists' convictions in the efficacy of psychotherapy based on psychodynamic principles. From this perspective, naming a disease was of much less consequence than understanding the underlying psychic conflicts and reactions that gave rise to symptoms (Houts, 2000). DSM-II was quite similar to the DSM-I. The term "reaction" was dropped but the term "neurosis" was retained. Both the DSM-I and the DSM-II reflected the predominant psychodynamic psychiatry, although they also included biological perspectives. Symptoms were not specified in detail for specific disorders. Many were seen as reflections of broad underlying conflicts or maladaptive reactions to life problems, rooted in a distinction between neurosis and psychosis. Unlike DSM-I and DSM-II, the subsequent revisions have been major undertakings of central scientific importance to the field. Unlike previous editions, DSM-III actively guided psychiatrists in assessing and diagnosing patients. Psychiatry experienced a cultural shift, one that was characterized by reliance on standardized knowledge rather than clinical expertise; statistical knowledge based on groups rather than individuals; and an increasingly reductionistic view of disease in which biology was dominant. The availability of pharmacological treatments for psychiatric disorders, combined with a wish to remain part of an increasingly scientifically rigorous medical realm, led psychiatry to trade psychoanalytic theory for a new biopsychiatry that largely rejected a disease model rooted in individual biographies, psychological conflict, and psychosocial stressors. The diagnostic manual grew out of this transition from psychodynamics to biopsychiatry and was explicitly "atheoretical" with regard to etiology, but most of the diagnostic categories enumerated in the DSM-III were underpinned by an

implicit assumption that biology and not psychological conflict was their primary cause. As a result of which, there was the removal of the word "reaction" from many diagnoses. Each diagnosis was thought of not only as stemming from a unique biological cause, but also as being made up of a unique set of symptoms—a marked departure from the psychodynamic view of disease (Spitzer & First, 2005).

POLYTHETIC-CATEGORICAL MODEL IN DSM AND ICD

In both DSM and ICD, all mental disorders are polythetic-categorical concepts. Polythetic refers to the fact that specific mental disorders are defined by multiple symptoms, and not all listed symptoms are necessary to consider a mental disorder present in a specific individual. Rather, a specific combination and number of symptoms, less than the total number of symptoms of the disorder must be observed to consider a diagnosis present. Categorical refers to the fact that all mental disorders in the DSM/ICD are binary, "either/or" concepts. Disorders are considered present in individuals when the right combination and number of symptoms are present, and absent otherwise. There are no exceptions, and gradations of present versus absent are not allowed. Each mental disorder listed in the DSM/ICD is conceptualized as both polythetic and categorical.

LIMITATIONS OF A POLYTHETIC-CATEGORICAL MODEL OF MENTAL DISORDERS

A number of problems emerge when conceptualizing mental disorders as strictly polythetic and categorical, in both research settings and in the clinic. Consider three conceptual problems: *Comorbidity, within-category heterogeneity and the validity of subthreshold symptomatology.*

Comorbidity

Patients' assessed through structured diagnostic interviews typically meet criteria for more than one specific diagnosis. This phenomenon termed 'comorbidity' (Feinstein, 1970) is frequently encountered and is a strong predictor of overall clinical severity (Angst et al, 2002). However, many distinct disorders have common etiologic factors. Key examples include overlapping genetic contributions to major depressive episode and generalized anxiety disorder, (Kendler, 1996; Middeldorp et al, 2005) and overlapping genetic contributions to antisocial personality disorder and substance dependence. Such data bring into question the DSM-based conceptualization of mental

disorders as entirely categorically distinct from each other. The data indicate a lack of categorical boundaries separating disorders, suggesting instead that disorder manifestations merge into each other in a way not well covered by the idea of polythetic categories.

Within-category heterogeneity

A strictly polythetic-categorical approach leads to diverse diagnostic and prognostic profiles within groups of people selected because they meet criteria for a specific mental disorder. Consider an example from research on DSM defined conduct disorder symptoms (Tackett et al, 2005). Ten symptoms common to DSM-III-R and DSM-IV, having an empirical structure consisting of two distinguishable dimensions, one consisting more of aggressive behaviours, and the other consisting more of rule-breaking behaviours. There is evidence that these two dimensions have distinguishable etiologies, with rule-breaking showing a greater relative contribution from the shared family environment, and aggression showing a greater relative contribution from genetic factors. DSM-IV recognizes subvarieties of conduct disorder based only on age of onset and severity of overall symptoms, and conceptualizes conduct disorder as a polythetic category consisting of 15 symptoms with a threshold of 3 symptoms for a diagnosis. The problem is that, with 15 symptoms and a threshold of 3, persons with diverse symptomatology are considered exemplars of the same, homogeneous, diagnostic category. This conceptualization is mismatched with the data. According to Thase et al (1997) within a sample of patients diagnosed with major depressive disorder, there is significant variability in the way they respond to treatment, the combination of interpersonal psychotherapy plus antidepressants was significantly better than psychotherapy alone only in the more severe major depression subgroup. In sum, polythetic categorical diagnostic concepts from the DSM show evidence of notable within-category heterogeneity. Though the limitations of a categorical approach, in terms of the heterogeneity problem, are described and acknowledged in the text of the DSM-IV, it does not describe specific strategies or concepts for overcoming the heterogeneity problem (Krueger & Bezdjian, 2009).

Subthreshold symptomatology

In a polythetic-categorical framework, the extent to which a person is below or above the threshold for a diagnosis is considered irrelevant to the diagnostic construct. Consider for example, a diagnosis that consists of 10 symptoms, where the

threshold is set at 5 symptoms. In this system, values from 1-4 are converted to “no diagnosis” and values from 5-10 are converted to “diagnosis present”. The extent of symptomatology is understood to lack clinical or public health significance. Nevertheless, research indicates that valuable information is lost when proximity to a threshold is discarded in favor of conceptualizing disorders solely in terms of whether a threshold has been passed. According to Fergusson et al (2005) the risk of depression and suicidal behaviours was similar for both the subthreshold and major depression groups. In general, these disorders do not appear to be empirically characterized by abrupt thresholds and are better characterized as continuous phenomena in nature.

A patient may experience a number of symptom patterns. Many such patterns have long been observed to overlap. In the DSM and ICD systems, the use of fixed definitions and strict criteria forces an artificial separation of conditions that are frequently related. Symptoms that may be etiologically, phenomenologically, or contextually interrelated are described as comorbid conditions, as if these discrete problems coexist more or less accidentally in the same person, much as a sinus infection and a broken toe might coexist. Assumptions about discrete, unrelated, co-morbid conditions are rarely justified by compelling data such as clear genetic, biochemical, and neurophysiological distinctions between syndromes. The cut-off criteria for diagnosis are often arbitrary decisions of committees rather than conclusions drawn from the best scientific evidence (Krueger & Bezdjian, 2009). In recent years however, there have been advances in methods to quantify and analyze complex mental phenomena.

NEUROSCIENCE AND PSYCHOANALYSIS

In the 1890s, Sigmund Freud attempted to explain psychoanalytical concepts on the basis of neuroanatomy and neurophysiology. However, this exercise failed due to the lack of the neuroscientific knowledge available at that time. Later Freud abandoned the idea of biology as a scientific model for psychoanalysis in favour of a descriptive model based on verbal reports of subjective experiences. With the introduction of brain imaging techniques such as positron emission tomography and functional magnetic resonance imaging which allow the measurement of brain activity associated with different mental processes, there is renewed interest in the integration of psychoanalytic and neuroscientific findings within a single theoretical and

experimental framework. There are two possible ways in which psychoanalysis and neuroscience might be integrated. These include the evaluation of psychoanalytic theories based on their neurobiological evidence; and the use of neuroimaging techniques to assess the progress and outcome of psychoanalytic treatment (Mechelli, 2010).

Neuroscience and psychoanalytical phenomena

Modern neuroscience is rediscovering some of Freud's most basic ideas into the workings of the human mental apparatus. Based on clinico-anatomical and brain imaging studies, it was concluded that the mechanism of repression requires left-hemispheric inhibition of right-hemispheric sexual and aggressive wishes. However, such inter-hemispheric inhibition cannot take place until the age of four when the left hemisphere is thought to become dominant. This means that the formation of the unconscious in the early years of life must rely on mechanisms other than repression. If the Freud's conscious and unconscious were localized in the left and right hemisphere respectively, then left-hemisphere patients should have gross ego-deficits and be at the mercy of primary processes whereas right-hemisphere patients should be more realistic and rational than average (Mechelli, 2010).

The distinction between memory systems is a highly relevant aspect of cognitive neuroscience. Cognitive neuroscience research has demonstrated that implicit and explicit memory involves neurologically distinct subsystems. Whereas procedural involves skills, declarative involves facts. The distinction between implicit and explicit memory relates to whether knowledge is retrieved and/or expressed with or without conscious awareness. Within this model, procedural and declarative memory can be either explicit or implicit. Defense mechanisms and unconscious internal object relations are largely in the realm of implicit procedural memory, but occasional defenses, such as suppression, involve explicit procedural memory because they occur with conscious awareness. Implicit declarative knowledge involves repressed ideas and repressed memories of events in one's life. Implicit declarative memory is the other component of transference and involves repressed and preconscious expectations, fantasies, and fears about how the analyst will react. The hippocampus and the temporal lobes are involved in explicit memory of autobiographical events and subcortical structures such as the basal ganglia and the cerebellum are involved in implicit memory (Gabbard, 2010).

According to John Bowlby, attachment system is an inborn instinctual or motivational system, much like hunger or thirst that organizes the memory processes of the infant and directs it to seek closeness to and communication with the mother. Levine and his colleagues (1967) were the first to carry the analysis to a molecular level by studying how varying degrees of infant attachment affected the animals' subsequent ability to respond to stress. The secretion of glucocorticoids is essential for survival during times of stress. These early adverse life experiences result in increased gene expression for corticotrophin-releasing factor (CRF), the hormone released from the hypothalamus to initiate the HPA response (Nemeroff, 1996). With chronic repetitive stress it is found that there is a loss of hippocampus neurons leading to both reversible atrophy and permanent damage resulting in significant impairment of memory. Consistent with the data from rodents, patients with depression have a significant reduction in the volume of the hippocampus and an elevated loss of declarative memory (Mc Ewen, 1995).

Neuroscience and psychotherapy

Psychotherapy produces long-term changes in conscious and unconscious attitude and behaviour. This is likely to occur through alterations in gene expression, protein biosynthesis or the regulation of rho GTPases which in turn may result in long term changes in brain structure and function (Kandel, 1998). There are two possible ways in which psychoanalytic treatment might affect the brain. One possibility is that therapy might induce significant changes in those areas of the brain that showed structural or functional abnormalities before therapy. An alternative possibility is that therapy might lead to compensatory changes in areas of the brain which were not impaired before therapy (Kandel, 1999).

The biological models can benefit from the contributions of psychoanalytic theories or other contextual and environmental approaches. Neuroscience is currently necessary and caution will be necessary to ensure that new collaborations between psychoanalysis and neuroscience do not exclude other approaches, such as the contextual approach, that have previously worked towards an integrated environmental and biological approach.

MANUALS OF IMPORTANCE

Psychodynamic Diagnostic Manual (PDM)

The psychodynamic diagnostic manual is a diagnostic framework based on current neuroscience and treatment

outcome studies that describes an individual's personality, emotional and social functioning, and symptom patterns both at the deeper and surface levels. The PDM covers adults, children and adolescents, and infants, emphasizing individual variations as well as commonalities. Focusing on the full range of mental functioning, the PDM complements the DSM and ICD efforts in cataloguing symptoms. It was developed on the basis that a clinically useful classification of mental health disorders must begin with an understanding of a person's overall mental functioning, including relationships, emotional regulation, coping capacities, and self-observing abilities. Just as healthy cardiac functioning cannot be defined simply as an absence of chest pain, healthy mental functioning is more than the absence of observable symptoms of psychopathology. Treatment outcome studies point to the significance of dealing with the full complexity of emotional and social patterns and show that the therapeutic relationship is the major predictor of outcomes. They further show that treatments that focus on isolated symptoms or behaviours are not effective in sustaining gains or addressing complex personality patterns (Leichsenring & Leibing, 2003; Westen et al, 2004).

The psychodynamic diagnostic manual uses a multidimensional approach to describe the particulars of a patient's functioning and ways of engaging in the therapeutic process. It begins with a classification of the spectrum of personality patterns and disorders found in individuals. It then describes a profile of mental functioning that allows a clinician to look in more detail at each of the patient's capacities. This is followed by a description of the patient's symptoms, but with a focus on the patient's internal experiences as well as surface behaviours. In this way, the PDM provides a comprehensive profile of an individual's mental life.

Operationalised Psychodynamic Diagnosis

Operationalized Psychodynamic Diagnosis (OPD) is a form of multi-axial diagnostic and classification system based on psychodynamic principles. It successfully attempts a fusion between descriptive and dynamic features, and respects the interaction between biological, psychodynamic and psychosocial determinants of illness. The OPD is based on five axes (Chan, 2009).

PROPOSAL FOR DSM V

Consequently, DSM-V is expected to shift towards a more dimensional rather than purely categorical approach. The

psychoanalytic tradition has a long history of examining overall human functioning in a comprehensive way, with an emphasis on both dimensionality and context of mental problems. In recent years however, there have been advances in methods to quantify and analyze complex mental phenomena. The challenge has been to organize these advances in order to provide a widely usable framework for understanding and specifying complex and subtle mental phenomena.

Dimensional options

The most effective classification system would recommend both categorical and dimensional approaches to diagnoses as they are significant to both clinicians and researchers. It is also clear that dimensional scales need to reflect categorical definitions and the two must have a clear relationship to one another. Based on categorical definitions, there are numerous ways for creating continuous measures, including number of symptoms, severity of symptoms and level of illness impairment (within diagnostic entities). If dimensional options for categorical diagnoses are adopted, then dimensional approaches that are most suitable to the diagnoses defined would effectively have to be created (Kraemer, 2008). Essentially, certain aspects of any specific disorder may be conceptualized and assessed dimensionally. Take substance use disorders for example: a categorical definition can be created based on prior categorical definitions, which set the diagnostic threshold (Helzer et al, 2008) Dimensionality can then begin at the symptom level, with each symptom being scored on (at least) a 3-point scale. Statistical methodology can be used to identify the dimensional score that most closely resembles the categorical (or diagnostic) threshold originally set forth. This leads to a consistent and clearer relationship between categorical and dimensional definitions. This method can essentially be implemented in most (if not all) parts of the DSM (e.g., personality disorders, mood disorders, psychoses, and developmental psychopathology).

Cross-cutting approach

This becomes relevant when examining different methods for dimensional assessment. For example, the need to ease differential diagnosis forms the basis of grouping anxiety disorders into a single section of the DSM. Yet, symptoms such as panic attacks occur across anxiety and other psychiatric disorders. Evidence suggests that panic episodes are a reliable marker for higher illness severity, decreased responsiveness to treatments, and increased suicidality (Bittner et al, 2004). Thus, panic may be considered a cross-cutting symptom

that is defined separately and seen across several disorders (Shear et al, 2008). Implementing cross-cutting dimensions can potentially be more effective and informative than categorical diagnoses that are kept “artificially dimension-specific”. Another instance where a cross-cutting dimensional approach may be an effective way to conceptualize a complex illness is with children who exhibit comorbid symptoms for putatively distinct disorders (e.g., attention-deficit/hyperactivity disorder (ADHD) and oppositional defiant disorder) (Hudziag et al, 2008). A cross-cutting dimensional approach may be able to simplify the clinical conceptualization of compound disorders by viewing those disorders as elements within a broader spectrum of interrelated condition.

Child and adolescent disorders

The need to consider sources of variance – including gender, age and development – that are generally overlooked in the current edition of DSM (Hudziag et al, 2008). Consider for example gender: three to seven times more boys than girls meet DSM diagnostic criteria for ADHD (Kessler et al, 2006). By adulthood, the disparity in gender is less apparent. A categorical approach that fails to take gender norms into consideration may hinder the understanding of these differences. By utilizing a dimensional approach, a systematic method for selecting gender sensitive cut-offs may be put forth. Age and development are also sources of variance that DSM criteria do not currently take into account. Sensitivity to developmental stages and individual distinctiveness may be more straightforward with a dimensional approach rather than a categorical one which only defines a single threshold. When implementing a supplementary dimensional system, children can be evaluated on dimensional scales that are normed on gender, age, and ethnicity.

Finally, DSM has consistently employed a “top-down” approach, where clinicians consult their own expertise as well as the existing literature for a diagnosis. In contrast, a “bottom-up” approach is generally driven by empirical analyses. A large body of symptom data may be collected from the general population to be statistically analyzed in order to determine which symptoms cluster together into syndromes or facets (Helzer et al, 2008). For example, Krueger et al discussed the advantages of comprising core descriptive personality features as part of DSM-V, thus reducing the large number of symptoms found in DSM-IV personality disorders to a set of more manageable facets. Thus, one advantageous approach

would be to structure the DSM-V in a way that allows the possibility to compare both top-down and bottom-up methods in order to improve the diagnostic validity of the system (Krueger et al, 2008).

CONCLUSION

The DSM-III represented a major advance for psychopathology researchers and clinicians around the world. Clearly worded, observable criteria were presented for numerous categorical and polythetic mental disorder constructs. This clarity has been a boon to empirical research on mental disorders, because it provided consensual target constructs. The conceptual system put in place in DSM-III has essentially continued forward, through DSM-IV, with changes in specific criteria but no change in the basic conceptualization of mental disorders. As a result, extensive data and experience has accumulated regarding the limitations inherent in polythetic categories. The need to evolve our conceptualization, and to move beyond a strictly categorical and polythetic model of all mental disorders, is clear. Psychiatry looks forward for the upcoming ICD-11 and DSM-V which have a great task of balancing the descriptive and theory based approaches. The challenge now is how to achieve this evolution, in terms of specific strategies and approaches that can be implemented in official nosologies. This is no small task, but it is a critical one if the goal is to keep research and treatment of mental disorders on solid empirical footing.

REFERENCES

- American Psychiatric Association (2000) Introduction. In: First, M. B. (Ed.) Diagnostic and statistical manual of mental disorders, 4th edition, (Text Revision). Washington: American Psychiatric Press.
- Angst, J., Sellaro, R., Merikangas, K. R., et al (2002) Multimorbidity of psychiatric disorders as an indicator of clinical severity. *European Archives of Psychiatry and Clinical Psychology*, 252, 147-154.
- Bittner, A., Goodwin, R. D., Wittchen, H. U., et al (2004) What characteristics of primary anxiety disorders predict subsequent major depressive disorder? *Journal of Clinical Psychiatry*, 65, 618-626.
- Chan, T. S. F. (2009) Operationalized Psychodynamic Diagnosis OPD-2: Manual of Diagnosis and Treatment Planning: Book review. *Hong Kong Journal of Psychiatry*, 19, 165-167.
- Feinstein, A. R. (1970) The pre-therapeutic classification of comorbidity in chronic disease. *Journal of Chronic Diseases*, 23, 455-468.
- Fergusson, D. M., Horwood, L. J., Ridder, E. M., et al (2005) Suicidal behaviour in adolescence and subsequent mental health outcomes in young adulthood. *Psychology of Medicine*, 35, 983-993.
- First, M. B. & Pincus, H. A. (2009) Diagnosis and classification. In: Gelder, M. G., Andreasen, N. C., Lopez-Ibor, J. J., et al (Eds.) *New Oxford Textbook of Psychiatry*, 2nd edition. pp. 107-108, New York, USA: Oxford University Press.
- Gabbard, G. O. (2009) Current psychodynamic approaches to psychiatry. In: Gelder, M. G., Andreasen, N. C., Lopez-Ibor, J. J., et al (Eds.) *New Oxford Textbook of Psychiatry*, 2nd edition. pp. 319, New York, USA: Oxford University Press.
- Gabbard, G. O. (2010) A neuroscience perspective on transference. *International Congress Series*, 1286, 189-196.
- Grob, G. N. (1991) Origins of DSM-I: A study in appearance and reality. *American Journal of Psychiatry*, 148, 421-431.
- Helzer, J. E., Wittchen, H. U., Krueger, R. F., et al (2008) Dimensional options for DSM-V: The way forward. In: Helzer, J. E., Kraemer, H. C., Krueger, R. F., et al (Eds.) *Dimensional approaches in diagnostic classification – Refining the research agenda for DSM-V*. pp. 115-127, Virginia: American Psychiatric Association.
- Houts, A. C. (2000) Fifty years of psychiatric nomenclature: Reflections on the 1943 War Department Technical Bulletin, Medical 203. *Journal of Clinical Psychology*, 56, 935 – 967.
- Hudziag, J. J., Achenbach, T. M., Althoff, R. R., et al (2008) A dimensional approach to developmental psychopathology. In: Helzer, J. E., Kraemer, H. C., Krueger, R. F., et al (Eds.) *Dimensional approaches in diagnostic classification – Refining the research agenda for DSM-V*. pp.101-113, Virginia: American Psychiatric Association.
- Kandel, E. R. (1998) A new intellectual framework for psychiatry. *American Journal of Psychiatry*, 155, 457-469.
- Kandel, E. R. (1999) Biology and the future of psychoanalysis: A new intellectual framework for psychiatry revised. *American Journal of Psychiatry*, 156, 505-524.
- Kendler, K.S. (1996) Major depression and generalised anxiety disorder: Same genes, (partly) different environments – Revisited. *British Journal of Psychiatry*, 168, 68-75.
- Kessler, R. C., Adler, L., Barkley, R., et al (2006) The prevalence and correlates of adult ADHD in the United States: Results from the National Comorbidity Survey Replication. *American Journal of Psychiatry*, 163, 716-723.
- Kraemer, H. C. (2008) DSM categories and dimensions in clinical and research contexts. In: Helzer, J. E., Kraemer, H. C., Krueger, R. F.,

- et al (Eds.) Dimensional approaches in diagnostic classification – Refining the research agenda for DSM-V., pp. 15-17, Virginia: American Psychiatric Association.
- Krueger, R. F. & Bezdjian, S. (2009) Enhancing research and treatment of mental disorders with dimensional concepts: Toward DSM-V and ICD-XI. *World Psychiatry*, 8, 3-6.
- Krueger, R. F., Skodol, A. E., Livesley, W. J., et al (2008) Synthesizing dimensional and categorical approaches to personality disorders. In: Helzer, J. E., Kraemer, H. C., Krueger, R. F., et al (Eds.) Dimensional approaches in diagnostic classification – Refining the research agenda for DSM-V., pp. 85-99, Virginia: American Psychiatric Association.
- Leichsenring, F. & Leibing, E. (2003) The effectiveness of psychodynamic therapy and cognitive behaviour therapy in the treatment of personality disorders: A meta-analysis. *American Journal of Psychiatry*, 1610, 1223-1232.
- Levine, S., Haltmeyer, G. C., Kaas, G. G., et al (1967) Physiological and behavioural effects of infantile stimulation. *Physiology of Behaviour*, 2, 55-63.
- McEwen, B. S. (1994) Corticosteroids and hippocampal plasticity. *Annals of New York Academic Science*, 746, 134-142.
- Mechelli, A. (2010) Psychoanalysis on the couch: Can neuroscience provide the answers? *Medical Hypotheses*, 75, 594-599.
- Merikangas, K. R., Zhang, H., Avenevoli, S., et al (2003) Longitudinal trajectories of depression and anxiety in a prospective community study. *Archives of General Psychiatry*, 60, 993-1000.
- Middeldorp, C. M., Cath, D. C., Van Dyck, R., et al (2005) The comorbidity of anxiety and depression in the perspective of genetic epidemiology: A review of twin and family studies. *Psychology of Medicine*, 35, 611-624.
- Mohl, P. C. & Brenner, A. M. (2009) Other psychodynamic schools. In: Sadock, B. J., Sadock, V. A., Ruiz, P. (Eds.) *Kaplan and Sadock's comprehensive textbook of psychiatry*, 9th edition, pp. 849-861, Philadelphia, USA: Lippincott Williams and Wilkins.
- Morgan, C. T., King, R. A., Weisz, J. R., Schopler, J. (2008) Personality. In: *Introduction to psychology*, 7th edition., pp. 257-294, New Delhi: Tata McGraw-Hill.
- Nemeroff, C. B. (1996) The corticotropin-releasing factor hypothesis of depression: New findings and new directions. *Molecular Psychiatry*, 1, 326–342.
- Ramana C. V. (1964) On the early history and development of psychoanalysis in India. *Journal of the American Psychoanalytic Association*, 12, 110-134.
- Sharf, R. S. (2008) Existential personality theory. In: *Theories of psychotherapy and counselling*, 4th edition., pp. 151-154, Belmont, USA: Thomson Brooks.
- Shear, M. K., Bjelland, I., Beesdo, K., et al (2008) Supplementary dimensional assessment in anxiety disorders. In: Helzer, J. E., Kraemer, H. C., Krueger, R. F., et al (Eds.) Dimensional approaches in diagnostic classification – Refining the research agenda for DSM-V., pp. 65-84, Virginia: American Psychiatric Association.
- Sinha, T. C. (1966) Development of psychoanalysis in India. *International Journal of Psychoanalysis*, 47, 427-439.
- Spitzer, R. & First, M. (2005) Classification of Psychiatric Disorders. *JAMA*, 294, 1898-1899.
- Tackett, J. L., Krueger, R. F., Iacono, W. G., et al (2005) Symptom-based subfactors of DSM-defined conduct disorder: Evidence for etiologic distinctions. *Journal of Abnormal Psychology*, 114, 483-487.
- Thase, M. E., Greenhouse, J. B., Frank, E., et al (1997) Treatment of major depression with psychotherapy or psychotherapy-pharmacotherapy combinations. *Archives of General Psychiatry*, 54, 1009-1015.
- Westen, D., Novotny, C. M., Thompson, H., et al (2004) The empirical status of empirically supported psychotherapies: Assumptions, findings, and reporting in controlled clinical trials. *Psychological Bulletin*, 130, 631-663.

-
1. **Dr. Nizamuddin Parvez**, MBBS, Junior Resident, Central Institute of Psychiatry, Kanke, Ranchi-834006
 2. **Dr. Vidya K L**, MBBS, Junior Resident, Central Institute of Psychiatry, Kanke, Ranchi-834006
 3. **Dr. S Haque Nizamie**, MD, DPM, (Corresponding Author) Professor of Psychiatry and Director, Central Institute of Psychiatry, Kanke, Ranchi-834006. Email: rch_cip45@bsnl.in
-

Review Article...

RESISTANT DEPRESSION: MANAGEMENT STRATEGIES

Alur Manjappa Adarsha¹, Basudeb Das²

Abstract

Major depressive disorders continue to be a growing cause of morbidity and disability across the globe. Close to one third of patients treated with antidepressants do not show an adequate response. It is essential for us to have a clear understanding of treatment resistant depression in order to effectively manage this condition. This review aims to find out the prevalence, treatment definitions, staging methods used, strategies in the management of treatment resistant depression and current guidelines. This review reveals that a number of strategies have a large evidence base. While research in pharmacotherapy continues, psychotherapy and somatic therapies are gaining more importance with increasing numbers of studies in these areas. The management of treatment resistant depression is not as difficult after a review of these methods of treatment as well, as the characteristics of depression itself. However, the best treatment may be one that is tailored according to each individual patient.

Keywords: *Treatment resistant depression, management, switching strategies, augmentation strategies*

INTRODUCTION

The World Health Organisation (WHO) estimates that approximately 121 million people suffer from depression worldwide. The WHO also predicts that by 2020, depression will be a leading cause of disability globally, second only to ischemic heart disease.

Treatment Resistant Depression (TRD) is associated with greater morbidity than depression per se and likely accounts for a large proportion of the burden caused by depression. There are many reasons why this should be so:

- Depending on the definitions used, 20-30% of people suffering from depression are resistant to treatment. When the more stringent criterion of 'remission' is used, this figure rises to 60 % (Thase & Rush, 2000).
- TRD is associated with greater duration and severity of illness, as well as greater functional impairment.
- More people with TRD also have co morbid conditions – both physical and psychiatric (Fekadu et al, 2009a).
- People with TRD incur higher direct and indirect healthcare costs and high social impairments (Greenberg et al, 2003).
- It forms one of the leading causes of suicides worldwide (Greden, 2001).

Keeping in view the large epidemiological and clinical implications TRD holds, a discussion of the management of TRD is of utmost importance.

PREVALENCE

Prevalence estimates of TRD are drawn from large clinical trials. In the first level of the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) trial, only about 30% of patients were in remission following up to 12 weeks of therapy with SSRI, citalopram (Trivedi et al, 2006a). Papakostas et al (2008) in their meta-analysis, reviewed 163 randomized, double-blind, placebo-controlled trials involving the use of antidepressants for Major Depressive Disorder (MDD). Approximately 53.4% of patients responded following treatment with an antidepressant, compared to 36.6% with placebo.

DEFINITIONS

An Adequate Treatment Trial

Dosage requirements vary depending on factors such as age, weight, general health, concomitant medication usage, and tolerance of a particular medication. Confirmation of treatment adequacy by more objective means (e.g., serial plasma drug levels) is not the rule in clinical practice, and valid plasma level–response relationships are limited to only a subgroup of the tricyclic antidepressants (TCAs) and lithium salts. With

respect to psychotherapy, adequacy of treatment may depend on the number of sessions. In electroconvulsive therapy (ECT), adequacy may be gauged by the total number of treatments, the use of bilateral electrode placement, and the verification of seizure time by electroencephalographic monitoring (Thase & Kupfer, 1987; Fava & Davidson, 1996).

Four features that determine the adequacy of antidepressant treatment are the following:

- Maximal **dosage** (or blood levels) achieved
- **Duration** at maximal and submaximal dosage
- **Compliance** with the treatment
- **Clinical outcome**

Dosage

Under dosing of antidepressants has historically been one of the main causes of nonresponse to treatment. The recommended adequate dosages have increased from 150 mg daily to between 250 and 300 mg daily of imipramine (IMN) or its equivalent (Sourey et al, 2001). It is not uncommon that at least some patients who fail to respond to treatment may do so as a result of less than optimal plasma drug concentrations (O'Reardon & Amsterdam, 1998). Medication intolerance may be another important cause of under dosing (Berlim & Turecki, 2007).

Duration

The stipulation of an adequate duration of 3 weeks has been supported by trials that show that a statistically significant difference in mean Hamilton Rating Scale for Depression (HRSD) and other equivalent scales' scores between drug and placebo (Walsh et al, 2002). However, the optimal duration of antidepressant drug treatment necessary for TRD patients may be considerably longer than the 6-week duration used in those clinical trial studies.

There is a current lack of compelling evidence to support the advantage of prolonged trials over 6 to 8 weeks. Further, in elderly patients with depression, 12 weeks or more may be necessary for a satisfactory clinical improvement (Burrows & Norman, 1999).

Compliance

Treatment nonadherence has been estimated to account for as many as 20% of cases considered resistant or refractory (Fava & Davidson, 1996). Many reasons for patient noncompliance have been suggested, including a breakdown in the patient–doctor

relationship, inadequate psychoeducation, and intolerable side effects (Bird et al, 2002). The actual prevalence of noncompliance may be underestimated and difficult to assess.

Clinical outcome

Given the protracted and disabling nature of some cases of TRD, it has been argued that even a 30% to 40% reduction in baseline symptom severity would probably provide a clinically meaningful benefit. Residual depressive symptoms (for example, insomnia, fatigue, psychic or somatic anxiety, and excessive reactivity to social stress) have consistently been shown to be associated with poorer outcomes, increased risk of relapse, and impaired social functioning (Berlim & Turecki, 2007).

Chronic depression

The term chronic refers to a prolonged, lingering condition which may appear as a protracted major depressive episode, as unremitting dysthymia, or as subsyndromal depression. Although chronicity may be the result of true resistance to treatment, it also is related to factors such as inadequate treatment or lack of treatment as well as personality traits, persistent stress, and marked dysfunctional attitudes.

STAGING OF TREATMENT-REFRACTORY DEPRESSION

The classification of TRD in stages has been proposed where increasing resistance is equated with an increased failure to respond to antidepressant strategies (Fava, 2003). The rationale behind this approach is the clinical impression that the greater the degree of treatment resistance, the lower the probability of response to any new treatment (Thase & Rush, 1997). Various TRD staging methods are:

- Thase and Rush Staging Method (1997)
- Maudsley Staging Method (Fekadu et al, 2009 b)
- The European Staging Method (Sourey et al, 1999)
- Massachusetts General Hospital Staging Method (Fava, 2003).

Moreover, any staging system based on administered treatments has the limitation of being dependent on the available therapeutic options as they evolve over time, rather than being based on the underlying neurobiology of TRD (Sourey et al, 2001; O'Reardon & Amsterdam, 1998). Despite these limitations, staging systems do have merit and are promising approaches to guide treatment selection and ultimately help predict long-term illness course.

ASSESSMENT OF CONTRIBUTORS TO TREATMENT-RESISTANT DEPRESSION

Several clinical, biological, and socio demographic variables have been studied in relation to response and resistance to antidepressant therapy.

Depression Subtypes

Individuals with different subtypes of depression (particularly melancholic, psychotic, atypical, and seasonal) may respond in somewhat different ways to the available therapies (Bird et al, 2002). Resistance to treatment may also be related to misdiagnosis of a unipolar depression in patients with bipolarity. Patients with bipolar depression, present in the depressive phase, 2 to 3 times more often than they do in the manic state (Judd et al, 2002) and it is estimated that bipolar depression is undetected in 35% to 45% of patients (Ghaemi et al, 1999).

Psychiatric Comorbidity

Many studies have reported the association between the presence of comorbid psychiatric disorders (especially anxiety, alcohol or substance use, and personality disorders) and TRD (Sourey et al, 2001). These comorbid disorders are often missed or are suboptimally treated (Grote & Frank, 2003).

Socio-demographic Factors

Although recent evidence does suggest that women may be less responsive than men to TCAs and may respond preferentially to SSRIs or MAOIs. Further, in terms of age at onset, both ends of the spectrum have been described as risk factors for TRD (Fava & Davidson, 1996).

Clinical Factors

Positive family history of affective disorders has been associated with early onset of depression and with chronicity, both of which have been linked to TRD (Fava & Davidson, 1996). Moreover, chronic forms of depression have been associated with poorer outcome in some, but not all, (Fava & Davidson, 1996) and the delay in initiating treatments was found to be a main predictor of chronicity and nonresponse (Sourey et al, 1999). Regarding the intensity of depression, it seems that mild and markedly severe presentations may be more refractory to somatic treatments.

Biological Markers

Despite significant research, there has not been substantial conclusive evidence of the significance or validity of biological

markers (for example, the dexamethasone suppression test, monoamine markers, and sleep characteristics) in predicting response to treatment of individuals suffering from depression (Berlim & Turecki, 2007).

Comorbid Medical Illness

Organic factors may contribute to affective illness in as many as 50% of patients (O'Reardon & Amsterdam, 2001; Fava, 2003). In a patient with a suspected TRD, it is crucial to rule out endocrinologic disorders [hypothyroidism, Cushing's syndrome, neurological disorders (both cortical and subcortical), pancreatic carcinoma, connective tissue disorders, vitamin deficiencies, and certain viral infections] (O'Reardon & Amsterdam, 2001; Sourey et al, 2001). Several types of medications, such as immunosuppressants, steroids and sedatives, may also precipitate or contribute to resistance. A diagnosis of secondary depression is usually associated with a significant likelihood of chronicity, despite adequate treatments (Burrows & Norman, 1999; Sourey et al, 1999).

TREATMENT STRATEGIES FOR TRD

Following are the treatment options available: Pharmacotherapies, Psychological therapies, Somatic therapies, other novel therapies.

PHARMACOTHERAPIES

Multiple treatment options are available to patients who do not respond fully to the first antidepressant agent prescribed. Selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and the norepinephrine-dopamine reuptake inhibitor bupropion (BUP) are common first steps.

For patients who have not had adequate response to a first-line antidepressant, 4 pharmacologic approaches are available: (Papakostas, 2009)

- 1) Increase the dose of the current antidepressant
- 2) Switch to a different antidepressant
- 3) Augment the current antidepressant with a non-antidepressant agent
- 4) Combine the initial antidepressant prescribed with a second antidepressant.

Factors that need to be considered when addressing advantages and disadvantages of agents are efficacy, tolerability, drug-drug

interactions, dosing convenience, treatment history, patient preference, and cost (Lin et al, 2009).

Maximizing Initial Treatment

Extending the Initial Medication Trial

Duration of adequate trial varies and if less than 4 weeks, the simplest strategy for nonresponse is to extend the initially ineffective treatment trial for another 2 to 4 weeks (Thase & Rush, 2000). Advantages of longer medication trials have been summarized by Quitkin (1985). An exception to this suggestion may be treatment with fluoxetine, which has been associated with continued evolution of treatment response for at least 8 weeks of treatment (Schweizer et al, 1990).

Increase the Dosage

Literature suggests that routine prescription of maximal and mega dosages of TCAs or MAOIs is associated with a greater likelihood of response than more modest dosages. For example, a supranormal dosage may be necessary to achieve therapeutic blood levels in approximately 5% to 10% of patients who have subtherapeutic TCA plasma levels despite compliance with conventionally maximal dosages (e.g., 300 mg/day of imipramine or 200 mg/day of nortriptyline) (Thase & Rush, 2000).

Anecdotal reports suggest a therapeutic window for SSRIs (Cain, 1992). Initial randomization to either low dosages (e.g., 20 mg/day of fluoxetine or paroxetine or 50 mg/day of sertraline) or high dosages (e.g., 60 mg/day of fluoxetine, 50 mg/day of paroxetine, or 200 mg/day of sertraline) appear to yield comparable responses over 4 to 6 weeks of pharmacotherapy (Amin et al, 1989; Dunner & Dunbar, 1992).

Switching Strategies

A time-honoured dictum in medicine is that a combination of two drugs should not be used if one drug will suffice. This strategy is effective for patients experiencing intolerable side effects from first line therapy and when they show no or minimal improvement. Following is the evidence for the options for switching:

Switching One SSRI for another [Within-class] or to a non-SSRI [across-class switch]

Within-class switching has the pharmacologic rationale that each medication shares a common mechanism of action, but each has its own pharmacologic “fingerprint” with differential

effects on other neurotransmitters and receptors. Across-class switching is done with the hope that changing the primary mechanism of action will prove more effective (Nierenberg et al, 2007).

A meta-analysis by Papakostas and colleagues (2008) found that patients randomized to switch to a non-SSRI antidepressant (bupropion, mirtazapine, venlafaxine) were more likely to experience remission than patients switched to a second SSRI. Pooled remission rates were 28% (for non-SSRIs) and 23.5% (for SSRIs). Advantages are that the norepinephrine uptake inhibitors are potentially useful in SSRI non-responders who have a history of prior TCA response and perhaps in patients who have MDD with comorbid ADHD (Nierenberg et al, 2007).

Switching from one Tricyclic Antidepressant to other

Studies document TCA response rates of only 10% to 30% in patients with a past history of TCA non response (Thase & Rush, 2000).

Switching from Tricyclic and others' to Selective Serotonin Reuptake Inhibitors

Switching from a TCA to a SSRI is an option that has not received extensive coverage in the literature (Thase et al, 2002). Fluoxetine in TCA non-responders had response rates of 43% to 51% observed in two outpatient studies (Thase & Rush, 2000). Peselow et al (1989) similarly reported that paroxetine was significantly more effective than placebo in imipramine non-responders, with a 50% response rate.

Crossover Studies

Peselow et al (1989) studied imipramine in a double-blind trial of 15 paroxetine non-responders, in which 11 (73%) responded to 6 weeks of imipramine therapy. McGrath et al (1993) studied refractory depression by crossing over the TCA imipramine with MAOI antidepressant phenelzine and vice-versa; they found that switching imipramine non-responders to phenelzine was superior to switching vice-versa. Thase et al (2002) studied by switching imipramine non-responders to sertraline and vice-versa, they demonstrated that switching imipramine to sertraline had higher response rate of 60% to 44% for switching sertraline to imipramine.

Level 3 of the STAR*D study compared switching to mirtazapine and to the TCA nortriptyline for the patients who did not respond to 2 previous trials. No statistical difference of response and

remission rates or for the tolerability was observed between the two treatment options with remission rates of <20% (Fava et al, 2006).

Level 4 of the STAR*D study compared switching to monoamine oxidase inhibitors [MAOI] antidepressant tranylcypromine versus switching to the combination of mirtazapine and venlafaxine for the patients who did not respond to three previous trials. Treatment outcome was not significantly different, with remission rates of 6.9% to tranylcypromine and 13.7% to combination of mirtazapine and venlafaxine, and it was observed that this combination was better tolerated than tranylcypromine (McGrath et al, 2006).

AUGMENTATION STRATEGIES

Augmentation can be defined as the use of a psychotropic agent that does not have an indication for depression to enhance the effect of an antidepressant. The theoretical rationale of augmentation is to obtain a different neurochemical effect by adding an agent affecting different neurotransmitter systems. Additionally, an augmentation agent can be used to broaden the therapeutic effect (eg, by adding an anti-anxiety agent to an antidepressant) (Nierenberg et al, 2007).

Atypical antipsychotics

Augmentation with atypical antipsychotics is currently the best-studied augmentation strategy for antidepressant non-responders.

Evidence suggests that risperidone (0.5–2 mg/day); olanzapine (5–20 mg/day); ziprasidone (40–80 mg twice daily); quetiapine (25–300 mg/day) and aripiprazole (15–30 mg/day) could be efficacious as augmentation agents in TRD (Muskin et al, 2010).

A 2007 meta-analysis pooled results of 10 randomized, double-blind, placebo-controlled trials with 1500 patients treated with risperidone, olanzapine, or quetiapine vs. placebo (Papakostas et al, 2007). The remission rate for augmentation with antipsychotic agents was high: approximately 47%, compared with 22% for the placebo group. The rate of discontinuation due to adverse effects was lower among the placebo group. Three randomized, double-blind, placebo-controlled trials compared augmentation of aripiprazole with placebo. In the all 3 trials, remission rates were significantly higher with aripiprazole than with placebo. Based on these trials, Food and Drug Administration (FDA) approved the use of aripiprazole as adjunctive treatment for TRD (Berman et al, 2007; 2009; Marcus et al, 2008).

Two studies looked at augmentation with quetiapine in non-responders with MDD and positive results lead to FDA approval. Patients who had failed to respond to one adequate treatment trial with antidepressants were randomized to augmentation with quetiapine 150 mg, quetiapine 300 mg, or placebo. Only two studies, however, demonstrated a statistically significant reduction in depressive symptoms with quetiapine 150 mg compared with placebo (El-Khalili et al, 2010; Bauer et al, 2009).

Another antipsychotic agent, olanzapine, was approved in 2009 for adjunctive use in patients who fail to respond to ≥ 2 adequate treatment trials with antidepressants. Because the studies on which this decision was based used olanzapine as adjunctive treatment with fluoxetine, the approval was only for use of olanzapine with fluoxetine.

Randomized, double-blind, placebo-controlled studies involving ziprasidone, paliperidone, asenapine, iloperidone, or clozapine for treatment-resistant MDD have not been conducted or published to date (Muskin et al, 2010).

LITHIUM

Before studies involving augmentation with antipsychotic agents were published, lithium in dosages of 600 to 1200 mg/day (or blood levels of 0.4 to 0.8 mmol/L) was the best studied augmentation agent. In 1981 that deMontigny et al reported a rapid and dramatic response to lithium augmentation in eight TRD patients. A bimodal distribution of lithium augmentation responses is been reported in a 6-week study. One subgroup of patients responded within the first 2 weeks of therapy, whereas a second sub group required 4 to 6 weeks of treatment. This observation could suggest two modes of action: an acute synergistic effect (such as that described by deMontigny and associates) and a more slowly emerging primary antidepressant effect (Thase & Rush, 2000).

Crossley and Bauer (2007) conducted two meta-analyses looking at lithium as an acceleration strategy [i.e. speeding up the time for response to antidepressants] in 5 studies and lithium as an augmentation strategy in 10 studies and concluded that there is firm evidence of lithium as an effective augmentation strategy but only modest evidence for acceleration strategy.

A review by Papakostas and Fava (2009) analysed seven randomized, double-blind, placebo-controlled studies looking at the use of lithium as adjunctive therapy with tricyclic

antidepressants (TCAs) compared with placebo. Three of these studies showed that lithium augmentation was superior to placebo, and 4 showed equivalent efficacy.

Variable results have been reported when lithium is used in combination with clomipramine (Thase & Rush, 2000). There is a paucity of evidence regarding the use of lithium with agents that are commonly used now as first, second or third-line antidepressant therapy (eg, SSRIs, SNRIs, or BUP). There is also a paucity of data comparing lithium with alternative treatment strategies (Muskin et al, 2010).

Thyroid Augmentation

One of the oldest augmentation strategies is the addition of small doses of thyroid hormone [e.g., 25 to 50 micrograms of L-triiodothyronine (T_3)]. The theoretical underpinnings include potentiation of effects on noradrenergic receptor sensitivity, increased efficiency of noradrenergic neurotransmission and correction of subtle thyroid abnormalities (Prange, 1987).

A meta-analysis by Aronson et al (1996) examined 8 controlled trials from 1966 to May 1995 ($n=292$), concluded that T_3 augmentation may be an effective empirical method of increasing response rates and decreasing depression severity scores in a subgroup of patients with depression refractory to tricyclic antidepressant therapy, but the total number of patients randomized was small, and additional placebo-controlled data are required for a definitive verdict.

It can be summarized that augmentation of TCA antidepressants with T_3 in doses of 25 to 50 micrograms/day appears to be effective in 25% to 60% of TCA-treated TRD cases, with very little risk of associated toxicity. The effectiveness of T_3 augmentation in SRI, venlafaxine, and bupropion non-responders remains to be established. Longer studies of the efficacy of T_3 used adjunctively with newer antidepressants are needed (Muskin et al, 2010).

Mirtazapine

Mirtazapine is an antagonist at the serotonin-2 and serotonin-3 receptors and of the alpha-2 adrenergic inhibitory autoreceptor. Four studies have looked at the use of the antidepressant mirtazapine in combination with an SSRI. Three of the 4 studies showed that combination therapy with these agents was superior to placebo for antidepressant non-responders with MDD (Papakostas, 2009). An advantage of these drugs is that they can cause sedation, which may help with the residual

depressive symptom of insomnia in some patients.

Pindolol

A beta-blocker and 5-HT_{1A} postsynaptic antagonist, pindolol (2.5 mg three times daily) accelerates the onset of action of antidepressants by preventing negative feedback to the presynaptic 5-HT_{1A} receptor (Artigas, 1995). Prevention of negative feedback results in higher levels of serotonin in the synapse. Two out of four randomized, double-blind, placebo controlled studies showed pindolol was more effective than placebo (Maes et al, 1999).

Modafinil

A few open trials suggested the efficacy of modafinil (in doses up to 400 mg/d). The mechanism of action of modafinil in MDD is unknown, although it may work by potentiating histaminergic tone in the brain (Papakostas, 2009). While two randomized, double-blind, placebo-controlled trials demonstrated that modafinil was not superior to placebo at resolving residual depressive symptoms of sleepiness and fatigue (DeBattista et al, 2003 a; Fava et al, 2005), another study however, demonstrated that modafinil augmentation of SSRIs is superior to placebo for improving wakefulness and depressive symptoms (Papakostas, 2009). It is unclear whether modafinil is effective for antidepressant non-responders who do not have sleepiness.

Buspirone

Buspirone is a 5-HT_{1A} partial agonist. In terms of clinical characteristics, buspirone's primary activity is as an anxiolytic. Although it has no specific or intrinsic antidepressant effects when used in conjunction with an antidepressant, it may have augmentative antidepressant effects. A number of open studies (Jacobsen, 1991; Joffe & Schuller, 1993) of dosages of 15 to 30 mg of buspirone per day for up to three months suggested that an improved antidepressant response occurred in up to two thirds of patients. Two randomized, placebo-controlled studies failed to demonstrate that augmentation with buspirone was superior to placebo for TRD (Landen et al, 1998; Appelberg et al, 2001).

Bupropion

In STAR*D, level 2 involved adding bupropion vs. buspirone to citalopram in citalopram non responders. Patients treated with adjunctive bupropion had lower depressive symptom scores than did patients treated with adjunctive buspirone. There was also

a numerical but not statistically significant increased remission rate for bupropion compared with buspirone (39% vs. 33%).

Methylphenidate

Methylphenidate is a psychostimulant used for treatment of attention-deficit/hyperactivity disorder (ADHD). Two randomized, double-blind, placebo controlled trials looked at adjunctive use of osmotic-release oral system (OROS) methylphenidate in TRD. Neither showed that augmentation with methylphenidate was superior to placebo for depression overall; one study, however, demonstrated that apathy and fatigue were more likely to be reduced with methylphenidate than with placebo (Patkar et al, 2006; Ravindran et al, 2008).

Folate and related compounds

Alpert and colleagues (2002) found that open augmentation with methylfolate (15–30 mg/d) resulted in a statistically significant improvement in depression scores. The same group found that open addition of *s*-adenosyl methionine (SAMe, 800–1600 mg/d) was also useful. The advantage is that these are naturally occurring substances and often are very acceptable to most patients. A systematic review examined three randomized trials, involving a total of 247 people. In two of these trials, there was limited evidence that folate helped. In the third trial, folate was compared to trazodone, an antidepressant drug. No difference was found. There is therefore limited evidence that adding folate to other antidepressant may be helpful.

Anticonvulsants

Drugs tried include gabapentin (Yasmin et al, 2001), topiramate (Schmidt et al, 2002), carbamazepine (Otani et al, 1996) and valproic acid (Hantouche et al, 2005). A potential advantage is that anticonvulsants may help lessen anxiety symptoms. There is no increased efficacy for lamotrigine vs. placebo for treatment of antidepressant non-responders with MDD.

Benzodiazepines and Non-benzodiazepines

A combination of benzodiazepines with antidepressants works in favour for the treatment of depression, because it decreases drop outs from treatment and it increases short-term response up to four weeks. Clonazepam also was non significantly superior to placebo in augmenting fluoxetine (Smith et al, 1998), and zolpidem was better than placebo in augmenting SSRIs for sleep problems but not depression (Asnis et al, 1999).

Dopaminergic agonists

Pergolide (0.25–2 mg/d), amantadine (100–200 mg twice daily), pramipexole (0.125–1 mg three times daily) and ropinirole (0.5–1.75 mg twice daily) have been found to be helpful in uncontrolled studies in patients who had MDD. An advantage is that pramipexole, ropinirole, and amantadine have been used to treat SSRI-induced sexual dysfunction. Both pramipexole and amantadine also may have neuroprotective properties, consistent with the neuroprotective/neurogenesis hypothesis of antidepressant action (Nierenberg et al, 2007).

Other augmentation agents

Inositol (up to 12 g/d) was found to be no better than placebo in a double-blind study. Evidence for the opiates oxycodone and buprenorphine is mostly anecdotal. A small, positive double-blind study supported the use of dehydro epiandrosterone (up to 90 mg/d). Gonadal hormones have limited support. One small, double-blind study reported positive results from the use of testosterone gel (1% gel, 10 g/d) in men, and oestrogen has limited support from mostly anecdotal evidence (Nierenberg et al, 2007).

Cognitive-behavioural therapy (CBT)

Data from level 2 of STAR*D suggest that augmentation of citalopram with CBT or with bupropion or buspirone results in comparable patient outcomes, although augmentation with bupropion or buspirone is more rapidly effective (Thase et al, 2002).

COMBINATION THERAPY

Combination regimens have certain advantages over switching strategies. Therapeutic benefits experienced with the first-line agent can be maintained, and the potential for withdrawal symptoms related to discontinuation of the first-line agent can be avoided. A disadvantage of augmentation/combination strategies is that any side effect associated with the first-line agent could persist or even be compounded by the combination agent. Other disadvantages could include increased cost and lower patient adherence due to the need to take multiple medications (Muskin et al, 2010).

SSRI plus bupropion

Open trials of bupropion (150 mg SR/XL daily or twice daily) initially suggested that this combination would be helpful (Bodkin et al, 1997). In a small trial, 54% of 28 partial and non-

responders to SSRIs or venlafaxine responded to an open-label trial of bupropion SR augmentation (DeBattista et al, 2003a). A disadvantage of combining SSRIs or serotonin-norepinephrine reuptake inhibitors (SNRIs) with bupropion is tremor (Bodkin et al, 1997). Advantages are the theoretical gain of effecting changes in the dopamine, serotonin, and norepinephrine systems and that the addition of bupropion may help manage SSRI-induced sexual dysfunction (Kennedy et al, 2002).

SSRI plus buspirone

Among citalopram non-responders in level 2 of the STAR*D study, bupropion combined with citalopram was non-significantly more effective than buspirone augmentation (Trivedi et al, 2006).

SSRI plus mirtazapine

In a placebo-controlled trial of mirtazapine (15–30 mg at night) plus SSRIs, more patients improved with the combination than with placebo addition (Carpenter et al, 2002; Wan et al, 2003). "California rocket fuel," a combination of venlafaxine and mirtazapine considered synergistic, which can give a triple boost to the serotonin system, a double boost to the norepinephrine system, and a single boost to the dopamine system. Mirtazapine plus venlafaxine was one of the two treatment options in level 4 of the STAR*D study, in which this combination showed a non-significant advantage over tranylcypromine (McGrath et al, 2006). Disadvantages are the weight gain and sedation associated with the antihistaminergic effects of mirtazapine (Carpenter et al, 2002).

Mirtazapine could decrease the adverse effects (nausea, anxiety, and sexual dysfunction) caused by SSRI stimulation of these receptors.

SSRI plus Nefazodone

In small case series the addition of trazodone or nefazodone to SSRIs was found to result in a positive response rate in patients who had TRD (Ferreri et al, 2001). Disadvantages include somnolence (trazodone) and risk of hepatotoxicity (nefazodone). An advantage is that trazodone and nefazodone may help insomnia (Nierenberg et al, 2007).

SSRI plus TCA

The combination of SSRIs and TCAs was first reported in 1991 with fluoxetine and desipramine (25–75 mg/d). Disadvantages are that several SSRIs inhibit the CYP450 2D6 system, and

TCAs are substrates of this liver isoenzyme, resulting in increased blood levels of the TCA that can cause more adverse effects or toxicity. Another problem is that low response rates were found in two double-blind studies (Fava et al, 2002). There is evidence, however, that this combination may produce a more rapid onset of action. Also, remission rates were significantly higher with desipramine plus fluoxetine than with either drug alone (Nelson et al, 2004).

PSYCHOLOGICAL THERAPIES FOR TRD

Cognitive-behavioural therapy (CBT)

CBT is an efficacious first-line treatment for depression (Gloaguen et al, 1998). Treatment typically lasts between 10 and 20 sessions (Beck, 2006), with patients often experiencing considerable symptom reduction after four to six weeks of treatment. Traditional CBT recently has been augmented with novel techniques designed to promote psychological well-being and to target cognitive reactivity (i.e., the tendency to respond to sad moods with increased negative thinking) and impairments in interpersonal functioning. Two approaches, well-being therapy and mindfulness based CT, have been applied as relapse-prevention strategies. Well-being therapy (Fava, 1999) applies CBT to help patients become more aware of periods of well-being, however fleeting, and challenge automatic thoughts and behaviours that interrupt such periods of pleasant emotions, making it an emotion-regulation strategy that may be particularly relevant to depression. Mindfulness-based cognitive therapy (MBCT) (Segal et al, 2002) is an eight-week group treatment designed to target cognitive reactivity.

The following recommendations for the indications of CBT were proposed by Paykel (2007): (1) CBT is indicated where there is prior evidence of vulnerability to relapse and recurrence, for instance by residual symptoms not responding fully to antidepressant, previous history of relapse or recurrences; (2) it should be used in these circumstances as an adjunct to continuation or maintenance medication; (3) preferably it should be started during improvement, while there are still some symptoms and negative cognitions are still accessible.

Although acute outcomes of CT and medication may be largely comparable, CT has been shown consistently to protect better against relapse. Relapse rates for CBT (26%–30%) are superior to those obtained with medication (60%–64%) according to two meta-analyses (DeRubeis & Crits-Christoph, 1998) CBT has been identified as a promising nonpharmacologic strategy

for treating depression in patients who are unresponsive to a first course of antidepressant medication. A noteworthy finding from the final report of the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) study is the relatively high remission rate (41.9%) among a sample of individuals (n=61) who received CT after not responding to and discontinuing an initial trial of psychopharmacology (citalopram) (Rush et al, 2006).

Further examining the evidence for CBT in TRD per se, Wiles et al (2004) conducted a pragmatic pilot RCT of CBT as an adjunct to pharmacotherapy in primary care patients. Twenty-three patients completed the 4 month assessment. The study demonstrated that primary care based CBT-studies for TRD were feasible and would provide valuable information. NICE guidelines suggest that “the combination of antidepressant medication with [face-to face] cognitive behavioural therapy (CBT) should be considered” for patients with TRD, whereas guided self-help and computerized CBT are recommended for mild depression. A controlled trial comparing CBT and IPT in relapse prevention is now needed.

Interpersonal Psychotherapy (IPT)

IPT is based on principal derived from psychosocial and life events. Research on depression, which has demonstrated relationships between *depression and four interpersonal problem areas*: complicated bereavement/ grief, role disputes (as in bad marriage), role transitions (and meaningful life changes), and interpersonal deficits. IPT therapists pragmatically use the *connection between current life events and onset of depressive symptoms* to help patients understand and combat their episode of illness. Acute IPT treatment has three phases comprising of around 15 sessions (Powers, 2004).

Family therapy

Family therapy seems more effective than no treatment or being placed on a waiting list, but it remains unclear how effective this intervention is in comparison to other interventions. Further randomised controlled trials are needed.

Marital therapy

Marital therapy has been suggested as a treatment for couples with a depressed spouse on the basis of the strong association between depressive symptoms and marital distress; marital therapy has the two-fold aim of modifying negative interactional patterns and increasing mutually supportive aspects of couple relationships.

OTHER PSYCHOSOCIAL INTERVENTIONS

Music therapy

Findings from individual randomised trials suggest that music therapy is accepted by people with depression and is associated with improvements in mood. However, the small number and low methodological quality of studies mean that it is not possible to be confident about its effectiveness.

Exercise for depression

Exercise seems to improve depressive symptoms in people with a diagnosis of depression, but when only methodologically robust trials are included, the effect sizes are only moderate and not statistically significant. Data from 25 trials were combined. Exercise did seem to improve the symptoms of depression, but it is still not clear exactly how effective it is, or what the most effective type of exercise.

SOMATIC THERAPIES

Somatic therapies are device-related and/or surgical interventions for major depression, often referred to as “neurotherapeutics” or “neuromodulators.” These treatments are typically (but not always) used in TRD patients.

Electroconvulsive Therapy (ECT)

A recent review and meta-analysis of 6 trials found that real ECT was significantly more effective than simulated ECT, and treatment with ECT was significantly more effective than pharmacotherapy and bilateral ECT was more effective than unilateral ECT (The UK ECT Review Group, 2003). However, another study has found that subjects with one failed antidepressant trial prior to ECT predicted higher post-ECT relapse rates (Rasmussen et al, 2002).

Ablative neurosurgeries

Procedures such as anterior cingulotomy, subcaudate tractotomy, limbic leucotomy (combination of anterior cingulotomy and subcaudate tractotomy), and anterior capsulotomy have been found to be efficacious in patients suffering from intractable mood and anxiety disorders with response rates ranging from 35% to 70% over a period of several weeks to several months, depending upon the response criteria.

Vagal nerve stimulation (VNS)

The majority of patients treated with VNS experience side effects during the 30-second stimulation period. Over the

course of using VNS to treat more than 40,000 patients who had treatment-resistant epilepsy, it was noted that many of these patients experienced improvement in mood (Elger et al, 2000; Harden et al, 2000). Therefore, trials of VNS for TRD were conducted, and the FDA approved VNS for TRD in 2005. The first of these clinical trials assessed adjunctive VNS therapy (112 patients) to sham treatment (110 patients) in patients who had TRD. At 1 year, 27.2% of patients responded, and 15.8% met criteria for remission. In addition, the rates of response and remission doubled from 3 months to 12 months, suggesting that longer-term treatment may be required with VNS (Rush et al, 2005). Rates of worsening depression during the 12-month trial varied from 4% to 7%, seven patients attempted suicide, and three patients became manic (Rush et al, 2005). Twenty-four of the clinical trial patients who had TRD receiving VNS discontinued treatment. Seven discontinued because of adverse events, and 17 discontinued because of lack of efficacy.

Repetitive transcranial magnetic stimulation (rTMS)

In meta-analyses, regarding the efficacy of rTMS for depression, most included studies in which the left dorsolateral prefrontal cortex (LDLPFC) was the stimulation site, and most included only controlled trials. Of the published meta-analyses (Burt et al, 2002; Couturier, 2005; Holtzheimer et al, 2001; Martin et al, 2003; McNamara et al, 2001), most found that rTMS was effective for treating depression.

Deep Brain Stimulation (DBS)

DBS involves the placement of electrodes in specified brain regions so that electrical stimulation can be delivered in a targeted manner. High frequency DBS is currently approved by the FDA for the treatment of medication refractory Parkinson's disease, essential tremor, primary dystonia, and obsessive-compulsive disorder (OCD). The first published report of DBS for TRD described a clinically significant antidepressant response in four of six patients of open-label bilateral DBS applied to the subcallosal cingulate white matter (Mayberg et al, 2004). Clinical trials of DBS in the anterior limb of the internal capsule for major depression are currently underway. Holtzheimer and Mayberg (2010) report a case who improved with DBS after failing multiple trials of antidepressants as well as ECT. To date, this procedure remains an experimental, not approved for general clinical use for this indication.

Magnetic Seizure Therapy (MST)

Magnetic seizure therapy (MST) is an alternative form of convulsive therapy which is able to produce a highly focal seizure, and thus potentially overcome one of the current limitations of ECT. The induction of a seizure occurs through the use of high frequency repetitive transcranial magnetic stimulation (rTMS) (Lisanby et al, 2003). Twenty patients with major depressive disorder were treated with a full course of MST using the same 50 Hz device across two sites (Lisanby et al, 2003). Mood improvement was seen following the MST treatment course, along with fewer side effects and dramatically more rapid reorientation post stimulation than an ECT comparison group. However, the magnitude of improvement did not seem as great as that which is generally seen with ECT.

Other novel therapies

Epidural prefrontal cortical stimulation (EpCS) of motor and sensory areas has been used over the past 10 years to treat intractable pain syndromes (Canavero & Bonicalzi, 2002), enhance recovery from stroke and for motor disorders such as Parkinson's disease. In a study by Nahas et al (2005) four cortical stimulation paddle leads were stereotactically placed bilaterally over the anterior frontal poles and midlateral prefrontal cortex in five patients with TRD. EpCS is more direct than transcranial magnetic stimulation (TMS) (Nahas, 2004) or vagus nerve stimulation (VNS) and potentially safer than deep brain stimulation (DBS), which involves passing the electrodes through brain tissue.

CONCLUSIONS

There has been difficult to achieve consensus of very basic concepts such as "resistance" per se.

Impact of current research and understanding, getting translated into clinical practice and real life situation, is always been a challenge. Overall, the strength of evidence supporting a trial of augmentation or a switch to a new agent is very similar.

- Confirming the diagnosis and assessing for the possible comorbid anxiety and substance use disorders needs to be done.
- Adherence to the treatment need to be checked and the dose optimized.
- Cochrane reviews suggest sertraline and escitalopram to be suitable as first-line antidepressant

treatment. Although there is evidence to indicate that escitalopram does appear to offer some tolerability advantages over several other antidepressants, particularly the SNRIs, venlafaxine XR and duloxetine (Leonard & Taylor, 2010).

- After failure of a first-line SSRI, neither a switch within class nor a switch to a different class of antidepressant is unequivocally supported by the data, although switching from a SSRI to venlafaxine or mirtazapine may potentially offer greater benefits (Connolly & Thase, 2011).
- Augmenting response to new-generation antidepressants, quetiapine and aripiprazole are best supported by the evidence.
- Although adjunctive lithium and thyroid hormone have established efficacy, this is true for use in combination with tricyclic antidepressants (TCAs), and the trials were done in less treatment-resistant patients than those who typically receive TCAs today. Of these two options, triiodothyronine augmentation seems to offer the best benefit/risk ratio for augmentation of modern antidepressants (Connolly & Thase, 2011). Other augmenting and switching strategies need to be considered weighing the advantages and disadvantages of them and taking individual patient factors.
- Interestingly, switching from a newer antidepressant to a TCA after a poor response to the former is not supported by strong evidence (Connolly & Thase, 2011).
- Psychotherapy as either switch or augmentation is another option (Muskin et al, 2010).
- Persistence and open communication between clinician and patients are essential to achieving adequate response and remission.

REFERENCES:

- Alpert, J.E., Mischoulon, D., Rubenstein, G.E., et al (2002) Folinic acid (leucovorin) as an adjunctive treatment for SSRI-refractory depression. *Annals of Clinical Psychiatry*, 14, 33–38.
- Amin, M., Lehmann, H., Mirmiran, J. (1989) A double-blind, placebo-controlled dose-finding study with sertraline. *Psychopharmacology Bulletin*, 25, 164–167.
- Appelberg, B.G., Sivalahti, E.K., Koskinen, T.E., et al (2001) Patients with severe depression may benefit from buspirone augmentation of selective serotonin reuptake inhibitors: Results from a placebo-controlled, randomized, double-blind, placebo wash-in study. *Journal of Clinical Psychiatry*, 62, 448–452.
- Aronson, R., Offman, H.J., Joffe, R.T., et al (1996) Triiodothyronine augmentation in the treatment of refractory depression. A meta-analysis. *Archives of General Psychiatry*, 53, 842–848.
- Artigas, F. (1995) Pindolol, 5-hydroxytryptamine, and antidepressant augmentation. *Archives of General Psychiatry*, 52, 969–971.
- Asnis, G.M., Chakraborty, A., DuBoff, E.A., et al (1999) Zolpidem for persistent insomnia in SSRI treated depressed patients. *Journal of Clinical Psychiatry*, 60, 668–676.
- Bauer, M., Pretorius, H.W., Constant, E.L., et al (2009) Extended-release quetiapine as adjunct to an antidepressant in patients with major depressive disorder: Results of a randomized, placebo controlled, double-blind study. *Journal of Clinical Psychiatry*, 70, 540–549.
- Beck, A.T. (2006) How an anomalous finding led to a new system of psychotherapy. *Natural Medicine*, 12, 8–15.
- Berlim, M. T., & Turecki, G. (2007) Definition, assessment and staging of treatment-resistant refractory major depression: A review of current concepts and methods. *Canadian Journal of Psychiatry*, 52, 46–54.
- Berman, R.M., Fava, M., Thase, M.E., et al (2009) Aripiprazole augmentation in major depressive disorder: A double-blind, placebo-controlled study in patients with inadequate response to antidepressants. *CNS Spectrum*, 14, 197–206.
- Berman, R.M., Marcus, R.N., Swanink, R., et al (2007) The efficacy and safety of aripiprazole as adjunctive therapy in major depressive disorder: A multicentre, randomized, double-blind, placebo-controlled study. *Journal of Clinical Psychiatry*, 68, 843–853.
- Bird D., Haddad P.M., Dursun S.M. (2002) An overview of the definition and management of treatment-resistant depression. *Bulletin of Clinical Psychopharmacology*, 12, 92–101.
- Bodkin, J. A., Lasser, R. A., Wines, J. D. Jr., et al (1997) Combining serotonin reuptake inhibitors and bupropion in partial responders to antidepressant monotherapy. *Journal of Clinical Psychiatry*, 58, 137–145.
- Burrows, G.D. & Norman, T.R. (1999) Treatment-resistant unipolar depression. In: Lader, M. & Naber, D. (Eds.) *Difficult clinical problems in psychiatry*, 1st edition. pp. 57–73, London (UK): Martin Dunitz,
- Burt, T., Lisanby, H., Sackeim, H. (2002) Neuropsychiatric applications of transcranial magnetic stimulation: A meta-analysis. *The International Journal of Neuropsychopharmacology*, 5, 73–103.
- Cain, J.W. (1992) Poor response to fluoxetine: Underlying depression, serotonergic overstimulation, or a "therapeutic window." *Journal of Clinical Psychiatry*, 53, 272–277.
- Canavero, S. & Bonicalzi, V. (2002) Therapeutic extradural cortical

- stimulation for central and neuropathic pain: A review. *The Clinical Journal of Pain*, 18, 48–55.
- Carpenter, L. L., Yasmin, S., Price, L. H. (2002) A double-blind, placebo-controlled study of antidepressant augmentation with mirtazapine. *Biological Psychiatry*, 51, 183–188.
- Couturier, J.L. (2005) Efficacy of rapid-rate repetitive transcranial magnetic stimulation in the treatment of depression: A systematic review and meta-analysis. *Journal of Psychiatry Neurosciences*, 30, 83–90.
- Connolly, K.R. & Thase, M.E. (2011) If at first you don't succeed: A review of the evidence for antidepressant augmentation, combination and switching strategies. *Drugs*, 71, 43–64.
- Crossley, N. A. & Bauer, M. (2007) Acceleration and augmentation of antidepressants with Lithium for depressive disorders: Two meta-analyses of randomized, placebo-controlled trials. *Journal of Clinical psychiatry*, 68, 935–940.
- DeBattista, C., Doghramji, K., Menza, M.A., et al (2003 a) Modafinil in Depression Study Group. Adjunct modafinil for the short-term treatment of fatigue and sleepiness in patients with major depressive disorder: A preliminary double-blind, placebo-controlled study. *Journal of Clinical Psychiatry*, 64, 1057–1064.
- deMontigny, C., Grunberg, F., Mayer, A., et al (1981) Lithium induces rapid relief of depression in tricyclic antidepressant drug non-responders. *British Journal of Psychiatry*, 138, 252–256.
- DeRubeis, R.J. & Crits-Christoph, P. (1998) Empirically supported individual and group psychological treatments for adult mental disorders. *Journal of Consulting and Clinical Psychology*, 66, 37–52.
- Dunner, D.L. & Dunbar, G.C. (1992) Optimal dose regimen for paroxetine. *Journal of Clinical Psychiatry*, 53, 21–26.
- Elger, G., Hoppe, C., Falkai, P., et al (2000) Vagus nerve stimulation is associated with mood improvements in epilepsy patients. *Epilepsy Research*, 42, 203–210.
- El-Khalili, N., Joyce, M., Atkinson, S., et al (2010) Extended release quetiapine fumarate (quetiapine XR) as adjunctive therapy in major depressive disorder (MDD) in patients with an inadequate response to ongoing antidepressant treatment: A multicentre, randomized, double-blind, placebo controlled study. *International Journal of Neuropsychopharmacology*, 13, 917–932.
- Fava, G.A. (1999) Well-being therapy: Conceptual and technical issues. *Psychotherapy and Psychosomatics*, 68, 171–179.
- Fava, M. & Davidson K. G. (1996) Definition and epidemiology of treatment-resistant depression. *Psychiatric Clinics of North America*, 19, 180–200.
- Fava, M. (2003) Diagnosis and definition of treatment-resistant depression. *Biological Psychiatry*, 53, 649–659.
- Fava, M., Alpert, J., Nierenberg, A., et al (2002) Double-blind study of high-dose fluoxetine versus lithium or desipramine augmentation of fluoxetine in partial responders and nonresponders to fluoxetine. *Journal of Clinical Psychopharmacology*, 22, 379–387.
- Fava, M., Thase, M.E., DeBattista, C. (2005) A multicentre, placebo-controlled study of modafinil augmentation in partial responders to selective serotonin reuptake inhibitors with persistent fatigue and sleepiness. *Journal of Clinical Psychiatry*, 66, 85–93.
- Fava, M., Rush, A. J., Wisniewski, S. R., et al (2006) A comparison of mirtazapine and nortriptyline following two consecutive failed medication treatments for depressed outpatients: A STAR*D report. *American Journal of Psychiatry*, 163, 1161–1172.
- Fekadu, A., Wooderson, S. C., Markopoulou, K., et al (2009 a) What happens to patients with treatment-resistant depression? A systematic review of medium to long term outcome studies. *Journal of Affective Disorders*, 116, 4–11.
- Fekadu, A., Wooderson, S.C., Markopoulou, K., et al (2009 b) The Maudsley Staging Method for treatment-resistant depression: Prediction of longer-term outcome and persistence of symptoms. *Journal of Clinical Psychiatry*, 70, 952–957.
- Ferreri, M., Lavergne, F., Berlin, I., et al (2001) Benefits from mianserin augmentation of fluoxetine in patients with major depression non-responders to fluoxetine alone. *Acta Psychiatrica Scandinavica*, 103, 66–72.
- Ghaemi, S.N., Sachs, G.S., Chiou, A.M., et al (1999) Is bipolar disorder still underdiagnosed? Are antidepressants overutilized? *Journal of Affective Disorder*, 52, 135–144.
- Gloaguen, V., Cottraux, J., Cucherat, M., et al (1998) A meta-analysis of the effects of cognitive therapy in depressed patients. *Journal of Affective Disorder*, 49, 59–72.
- Greden, J.F. (2001) The burden of recurrent depression: Causes, consequences, and future prospects. *Journal of Clinical Psychiatry*, 62, 5–9.
- Greenberg, P.E., Kessler, R.C., Birnbaum, H.G., et al (2003) The economic burden of depression in the United States: How did it change between 1990 and 2000? *Journal of Clinical Psychiatry*, 64, 1465–1475.
- Grote, N.K. & Frank, E. (2003) Difficult-to-treat depression: The role of contexts and comorbidities. *Biological Psychiatry*, 53, 660–670.
- Hantouche, E.G., Akiskal, H.S., Lancrenon, S., et al (2005) Mood stabilizer augmentation in apparently 'unipolar' MDD: Predictors of response in the naturalistic French national EPIDEP study. *Journal of Affective Disorder*, 84, 243–249.
- Harden, C.L., Pulver, M.C., Ravdin, L.D., et al (2000) A pilot study of mood in epilepsy patients treated with vagus nerve stimulation. *Epilepsy and Behaviour*, 1, 93–99.
- Holtzheimer, P.E., Russo, J., Avery, D.H. (2001) A meta-analysis of repetitive transcranial stimulation in the treatment of depression. *Psychopharmacology Bulletin*, 35, 149–169.

- Holtzheimer, P. E. & Mayberg, J. (2010) Deep Brain Stimulation for Treatment-Resistant Depression. *American Journal of Psychiatry*, 167, 1437-1444.
- Judd, L.L., Akiskal, H.S., Schettler, P.J., et al (2002) The long-term natural history of the weekly symptomatic status of bipolar I disorder. *Archives of General Psychiatry*, 59, 530–537.
- Kennedy, S. H., McCann, S. M., Masellis, M., et al (2002) Combining bupropion SR with venlafaxine, paroxetine, or fluoxetine: A preliminary report on pharmacokinetic, therapeutic, and sexual dysfunction effects. *Journal of Clinical Psychiatry*, 63, 181–186.
- Landen, M., Bjorling, G., Agren, H., et al (1998) A randomized, double-blind, placebo-controlled trial of buspirone in combination with an SSRI in patients with treatment-refractory depression. *Journal of Clinical Psychiatry*, 59, 664-668.
- Leonard, B. & Taylor, D. (2010) Escitalopram—translating molecular properties into clinical benefit: Reviewing the evidence in major depression. *Journal of Psychopharmacology*, 24, 1143–1152.
- Lisanby, S.H., Morales, O., Payne, N., et al (2003) New developments in electroconvulsive therapy and magnetic seizure therapy. *CNS Spectrum*, 8, 529-536.
- Lin, E.H., Heckbert, S.R., Rutter, C.M., et al (2009) Depression and increased mortality in diabetes: Unexpected causes of death. *Annals of Family Medicine*, 7, 414-421.
- Maes, M., Libbrecht, I., van Hunsel, F., et al (1999) Pindolol and mianserin augment the antidepressant activity of fluoxetine in hospitalized major depressed patients, including those with treatment resistance. *Journal of Clinical Psychopharmacology*, 19, 177-182.
- Marcus, R.N., McQuade, R.D., Carson, W.H., et al (2008) The efficacy and safety of aripiprazole as adjunctive therapy in major depressive disorder: A second multicentre, randomized, double-blind, placebo-controlled study. *Journal of Clinical Psychopharmacology*, 28, 156-165.
- Martin, J.L.R., Barbanoj-Rodriguez, M., Schlaepfer, T., et al (2003) Transcranial magnetic stimulation for treating depression. *British Journal of Psychiatry*, 182, 480–491.
- Mayberg, H.S., Lozano, A.M., Voon, V., et al (2004) Deep brain stimulation for treatment-resistant depression. *Neuron*, 45, 651–660.
- McGrath, P. J., Stewart, J.W., Fava, M., et al (2006) Tranylcypromine versus venlafaxine plus mirtazapine, following three failed antidepressant medication trials for depression: A STAR*D report. *American Journal of Psychiatry*, 163, 1531-1541.
- McGrath, P.J., Stewart, J.W., Nunes, E.V., et al (1993) A double-blind crossover trial of imipramine and phenelzine for outpatients with treatment-refractory depression. *American Journal of Psychiatry*, 250, 118–123.
- McNamara, B., Ray, J.L., Arthurs, O.J., et al (2001) Transcranial magnetic stimulation for depression and other psychiatric disorders. *Psychological Medicine*, 31, 1141–1146.
- Muskin, P. R., Nierenberg, A. A., Papakostas, G. I. (2010) Effective strategies for patients with complex depression in psychiatric practice. *Current Psychiatry*, 11, 3-20.
- Nahas, Z. (2004) Safety and benefits of distance-adjusted prefrontal transcranial magnetic stimulation in depressed patients 55–75 years of age: A pilot study. *Depression Anxiety*, 19, 249–256.
- Nahas, Z., Li, X., Kozel, F.A., Mirzki, D., et al (2005) Two-year outcome of vagus nerve stimulation (VNS) for treatment of major depressive episodes. *Journal of Clinical Psychiatry*, 66, 1097–1104.
- Nelson, J. C., Mazure, C. M., Jatlow, P. I., et al (2004) Combining norepinephrine and serotonin reuptake inhibition mechanisms for treatment of depression: A double-blind, randomized study. *Biological Psychiatry*, 55, 296–300.
- Nierenberg, A. A., Judith, B.S., Fava, M. (2007) A critical overview of the pharmacologic management of treatment-resistant depression. *Psychiatric Clinics of North America*, 30, 13–29.
- O'Reardon, J.P. & Amsterdam, J.D. (1998) Treatment-resistant depression: Progress and limitations. *Psychiatry Annals*, 28, 633–640.
- O'Reardon, J.P. & Amsterdam, J.D. (2001) Overview of treatment-resistant depression and its management. In: Amsterdam, J. D., Hornig, M., Nierenberg, A. A. (Eds.) *Treatment-resistant mood disorders*. pp. 30–45, New York: Cambridge University Press.
- Otani, K., Yasui, N., Kaneko, S., et al (1996) Carbamazepine augmentation therapy in three patients with trazodone-resistant unipolar depression. *International Clinical Psychopharmacology*, 11, 55–57.
- Papakostas G. I., Fava M., Thase M. E. (2008) Treatment of SSRI-resistant depression: A meta-analysis comparing within-versus across-class switches. *Biological Psychiatry*, 63, 699-704.
- Papakostas, G., Shelton, R.C., Smith, J., et al (2007) Augmentation of antidepressants with atypical antipsychotic medications for treatment-resistant major depressive disorder: A meta-analysis. *Journal of Clinical Psychiatry*, 68, 826-831.
- Papakostas, G.I. & Fava, M. (2009) Does the probability of receiving placebo influence clinical trial outcome? A meta-regression of double blind randomized clinical trials in MDD. *European Neuropsychopharmacology*, 19, 34-40.
- Papakostas, G.I. (2009) Managing partial response or nonresponse: Switching, augmentation, and combination strategies for major depressive disorder. *Journal of Clinical Psychiatry*, 70, 16-25.
- Papakostas, G.I., Fava, M., Thase, M.E. (2008) Treatment of SSRI-resistant depression: A meta-analysis comparing within- versus across-class switches. *Biological Psychiatry*, 63, 699-704.

- Patkar, A.A., Masand, P.S., Pae, C.U., et al (2006) A randomized, double-blind, placebo-controlled trial of augmentation with an extended release formulation of methylphenidate in outpatients with treatment resistant depression. *Journal of Clinical Psychopharmacology*, 26, 653-656.
- Paykel, E.S. (2007) Cognitive therapy in relapse prevention in depression. *International journal of Neuropsychopharmacology*, 10, 131-136.
- Peselow, E.D., Filippi, A.M., Goodnick, P., et al (1989) The short-and long-term efficacy of paroxetine HCl: B. Data from a double-blind crossover study and from a year-long trial vs. imipramine and placebo. *Psychopharmacology Bulletin*, 25, 272-276.
- Prange, A.J. (1987) L-Triiodothyronine (T3): Its place in the treatment of TCA-resistant depressed patients. In: Zohar, J. & Belmaker, R.H. (eds.) *Treating resistant depression*. pp. 269-278, New York: PMA Publishing.
- Quitkin, F.M. (1985) The importance of dosing in prescribing antidepressants. *British Journal of Psychiatry*, 247, 593-597.
- Rasmussen, K.G., Sampson, S.M., Rummans, T.A. (2002) Electroconvulsive therapy and newer modalities for the treatment of medication-refractory mental illness. *Mayo Clinic Proceedings*, 77, 552-556.
- Ravindran, A.V., Kennedy, S.H., O'Donovan, M.C., et al (2008) Osmotic-release oral system methylphenidate augmentation of antidepressant monotherapy in major depressive disorder: Results of a double-blind, randomized, placebo-controlled trial. *Journal of Clinical Psychiatry*, 69, 87-94.
- Rush, A.J., Marangell, L.B., Sackeim, H.A., et al (2005) Vagus nerve stimulation for treatment-resistant depression: A randomized, controlled acute phase trial. *Biological Psychiatry*, 58, 347-354.
- Rush, A.J., Thase, M.E., Dube, S. (2003 a) Research issues in the study of difficult-to-treat depression. *Biological Psychiatry*, 53, 743-753.
- Rush, A.J., Trivedi, M.H., Wisniewski, S.R., et al (2006) Acute and longer-term outcomes in depressed outpatients requiring one or several treatment steps: A STAR*D report. *American Journal of Psychiatry*, 163, 1905-1917.
- Schweizer, E., Rickels, K., Amsterdam, J.D., et al (1990) What constitutes an adequate antidepressant trial for fluoxetine? *Journal of Clinical Psychiatry*, 51, 8-11.
- Segal, Z.V., Williams, J.M.G., Teasdale, J.D. (2002) *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press.
- Smith, W.T., Londeborg, P.D., Glaudin, V., et al (1998) Short-term augmentation of fluoxetine with clonazepam in the treatment of depression: A double-blind study. *American Journal of Psychiatry*, 155, 1339-1345.
- Sourey, D., Amsterdam, J., de Montigny, C., et al (1999) Treatment resistant depression: Methodological overview and operational criteria. *European Neuropsychopharmacology*, 9, 83-91.
- Sourey, D., Lipp, O., Massat, I., et al (2001) The characterization and definition of treatment-resistant mood disorders. In: Amsterdam, J. D., Hornig, M., Nierenberg, A. A., (eds.) *Treatment-Resistant mood disorders*. pp. 3-29., New York: Cambridge University Press.
- Thase, M. & Rush, A. J. (2000) *Treatment-Resistant Depression*. In: Bloom, F. E. & Kupfer, D. J. (eds.) *4th generation Neuropsychopharmacology*. Nashville.
- Thase, M.E. & Kupfer, D.J. (1987) Characteristics of treatment-resistant depression. In: Zohar, J. & Belmaker, R.H. (eds.) *Treating resistant depression*. pp. 23-45, New York: PMA Publishing.
- Thase, M.E. & Rush, A.J. (1997) When at first you don't succeed: Sequential strategies for antidepressant nonresponders. *Journal of Clinical Psychiatry*, 58, 23-29.
- Thase, M.E., Rush, A.J., Howland, R.H., et al (2002) Double-blind switch study of imipramine or sertraline treatment of antidepressant-resistant chronic depression. *Archives of General Psychiatry*, 59, 233-239.
- The UK ECT Review Group. (2003) Efficacy and safety of electroconvulsive therapy in depressive disorders: A systematic review and meta-analysis. *Lancet*, 361, 799-808.
- Trivedi, M.H., Fava, M., Wisniewski, S.R., et al (2006) Medication augmentation after the failure of SSRIs for depression. *New England Journal of Medicine*, 354, 1243-1252.
- Trivedi, M.H., Rush, A.J., Wisniewski, S.R., et al (2006 a) Evaluation of outcomes with citalopram for depression using measurement-based care in STAR*D: Implications for clinical practice. *American Journal of Psychiatry*, 163, 28-40.
- Walsh, T., Seidman, S., Sysko, R., et al (2002) Placebo response in studies of major depression: Variable, substantial and growing. *Journal of American Medical Association*, 287, 1840-1847.
- Wan, D.D., Kundhur, D., Solomons, K., et al (2003) Mirtazapine for treatment-resistant depression: A preliminary report. *Journal of Psychiatry Neurosciences*, 28, 55-59.
- Wiles, N. J., Hollinghurst, S., Mason, V., et al (2004) A Randomized Controlled Trial of Cognitive Behavioural Therapy as an Adjunct to Pharmacotherapy in Primary Care Based Patients with Treatment Resistant Depression: A Pilot Study. *Behavioural and Cognitive Psychotherapy*, 36, 21-33
- Yasmin, S., Carpenter, L.L., Leon, Z., et al (2001) Adjunctive gabapentin in treatment-resistant depression: A retrospective chart review. *Journal of Affective Disorder*, 63, 243-247.

-
1. **Dr. Adarsha A M**, MBBS, Junior Resident Department of Psychiatry, Central Institute of Psychiatry (CIP), Ranchi.
 2. **Dr. Basudeb Das**, MD, (Corresponding author) Associate Professor, Department of Psychiatry, Central Institute of Psychiatry (CIP), Ranchi. Email: basudeb71@gmail.com
-

Research Article...

BODY IMAGE, PERSONALITY, PSYCHIATRIC MORBIDITY AND SUBSTANCE DEPENDENCE IN MEN WITH TATTOOS

Parnasha Gupta¹, Sadhan Dasgupta²

Abstract

Background: Tattooing is emerging as a new fashion trend in India. An attempt was made to explore whether there are any differences in the levels of body image perception, neuroticism, extraversion, openness to experience, agreeableness, conscientiousness, psychiatric morbidity and substance dependence of men with tattoos and without tattoos living in Kolkata. **Method:** General Information Schedule, Self-Perceived Body Image Scale, Self Reporting Questionnaire (SRQ-20) and the NEO-Five Factor Inventory (NEO-FFI) were administered to 60 men (30 with tattoos, 30 without tattoos). **Results:** Men with tattoos had better body-image perception ($t=2.493$, $p<0.05$), lower neuroticism ($t=-2.565$, $p<0.05$) and agreeableness ($t=-2.2$, $p<0.05$), and higher extraversion ($t=2.911$, $p<0.005$) and openness to experience ($t=2.692$, $p<0.01$) than men without tattoos. Among the 30 men with tattoos, one person each had Borderline Personality Disorder and Antisocial Personality Disorder, while one was addicted to Marijuana. Number of tattoos was significantly correlated to openness to experience ($r=0.431$, $p<0.05$). **Conclusions:** The study highlights that there are differences in the personality structures of men with tattoos and men without tattoos.

Key Words: *Tattoo, body image, personality, psychiatric morbidity*

INTRODUCTION

A tattoo is defined as a mark or design on the skin which is indelible (or, impossible to remove, erase, or wash away) in which the skin is punctured and pigment is inserted (the Pocket Oxford Dictionary, 1996). Though tattooing is emerging as a fashion trend in India in recent times, it is not a new concept. Some archaeological evidence has been found which shows that tattooing was prevalent among the eastern European tribes dating from 12,000 years ago. Along the Austro-Italian border a fossil of man with tattoos was found. He is referred to as Ötzi, the Iceman, and is said to have lived 5300 years ago (van Dinter, 2005).

Tattooing of the skin was used either as a method of punishment (as seen in ancient Greece, Rome, China and Japan), or as rites of passage or status symbols (as seen in the Pacific Islands) (van Dinter, 2005).

In India too, tattooing is not new. Many Hindu women are tattooed to mark their subordinate role in the society, to represent fertility, to ward off evil spirits, or to increase their attractiveness. Men get tattoos to bring good luck or protect themselves against evil. Tribals like Santhals tattoo the body

of their children to mark the religion, status and sanctity of the tribe. The Vairagis in Bengal tattoo the picture of Radha-Krishna united together in love on their wrists (Ahmed, 2006).

A vast body of research on people with tattoos has taken place in the western countries. Many differences have emerged between people with tattoos and people who do not have tattoos. Most of the research findings suggest that tattoos are the external expressions of internal problems (Saccaggi et al, 2007). Khosla and others (2010) mention that the prevalence of tattoos is higher among people with mental disorders and those likely to come in contact with mental health services. Some researchers have found antisocial personality disorder and borderline personality disorder to be prevalent among people with tattoos (Cardasis et al, 2008; Duggal & Fisher, 2002; Raspa & Cusack, 1990). Substance Abuse is also found to be highly correlated with the presence of tattoos (Nathanson et al, 2005; Claes et al, 2005; Drews et al, 2000; Farrow et al, 1991).

Research conducted on people with tattoos in an Indian context is scant. The aim of the present study was to find out the difference in the levels of body-image perception, big-five personality traits (neuroticism, extraversion, openness to

experience, agreeableness and conscientiousness), psychiatric morbidity and substance dependence of men with tattoos and men without tattoos living in Kolkata, India.

MATERIAL AND METHOD

Participants

Purposive sampling technique was used in the present study. 30 men with tattoos and 30 men without tattoos, living in Kolkata, whose age range was between 20 and 30 years, who belonged to either middle or upper socio economic statuses were selected. All subjects had passed class XII, were heterosexual, had never received any form of psychiatric treatment, were never imprisoned and were not hospitalized in the past six months. Both married and unmarried men were included in the study. Subjects were divided into the two groups depending on the presence or absence of tattoos.

The men with tattoos were selected from various tattoo shops in north, south and central Kolkata. This was done after taking written permission from the tattoo shop owners. The men without tattoos were selected from the various departments of the University of Calcutta. Informed consent was taken from all the subjects before collecting data. The study had the permission of the department's ethical committee.

Assessment

Socio-demographic details were gathered using a specially designed General Information Schedule. The Self-Perceived Body Image Scale (Richmond, 1998) was used to assess the level of body-image perception of the subjects (reliability 0.86 to 0.94).

The Self Reporting Questionnaire (SRQ-20) developed by the Division of Mental Health, World Health Organization, Geneva, 1994, was administered to find out the presence of neurotic signs and symptoms of the subjects (reliability 0.97).

The NEO-Five Factor Inventory (NEO-FFI) (Costa & Mc Crae, 1992) was used to assess the big-five personality traits of the subjects. For the NEO FFI, the internal consistency of the subscales reported in the manual was: Neuroticism 0.79, Extraversion 0.79, Openness to Experience 0.80, Agreeableness 0.75, and Conscientiousness 0.83.

The Tattoo Questionnaire (Cardasis et al, 2008), a semi-structured interview, was administered men with tattoos to get more information about the tattoos.

DSM-IV-TR (American Psychiatric Association, 2000) was used to assess if any subject had substance dependence syndrome or a personality disorder.

Table 1: Comparison of levels of Self Perceived Body Image, Neurotic Signs and Symptoms and the Dimensions of Personality between men with tattoos and men without tattoos (N = 30)

Variables		Groups	Mean	Std. Deviation	t-test		
					t	Df	p
Self Perceived Body Image		With Tattoos	92.47	13.86	2.493	58	0.016*
		Without Tattoos	83.97	12.51			
Neurotic Signs and Symptoms		With Tattoos	1.2	1.4	-0.089	58	0.929
		Without Tattoos	1.23	1.5			
Dimensions of Personality	Neuroticism	With Tattoos	47.3	7.39	-2.565	58	0.013*
		Without Tattoos	52.33	7.8			
	Extraversion	With Tattoos	54.5	8.48	2.911	58	0.005**
		Without Tattoos	48.07	8.64			
	Openness to Experience	With Tattoos	54.97	8.76	2.692	53.097	0.009**
		Without Tattoos	49.63	6.4			
	Agreeableness	With Tattoos	41.4	5.95	-2.2	58	0.032*
		Without Tattoos	44.93	6.49			
	Conscientiousness	With Tattoos	55.17	8.58	0.929	58	0.357
		Without Tattoos	53.23	7.5			

*p< 0.05; **p< 0.01

Statistical analysis

The Statistical Package for the Social Sciences version 12.0 for Windows® (SPSS Inc., Chicago, IL, USA) was used for statistical analysis of the data. Descriptive statistics (mean and standard deviation), independent sample t-test, and Spearman's Rank Order Correlation were used to analyse the data collected. An alpha level of 0.05 was considered significant.

RESULTS

Table 1 shows that the mean Self Perceived Body Image score for the group with tattoos was significantly higher than that for the group without tattoos ($t=2.493$; $p<0.05$). Among the dimensions of personality, Neuroticism and Agreeableness scores in the group without tattoos were significantly higher than the group with tattoos ($t=2.565$; $p<0.05$ and $t=2.2$; $p<0.05$ respectively). While, Extraversion and Openness to experience scores in the group with tattoos were significantly higher than the group without tattoos ($t=2.911$; $p<0.01$ and $t=2.692$; $p<0.01$ respectively). Neurotic signs and symptoms and, conscientiousness domain of personality were not significantly different between the groups.

Table 2 shows that 'only smokers' are marginally more in the without tattoos group than with tattoos group. One subject qualified for 'Only drinking' from the with tattoos group, whereas none in the with tattoo group qualified. Similarly, one subject qualified for 'Marijuana use' from the with tattoos group, whereas none in the with tattoo group qualified. 'Smokers and drinkers' are equal in number in both the groups. Those who do not have any form of substance use disorders were also equal in both groups.

Table 2: Substance use among the two groups

	Addictions				
	Only Smoking	Only Drinking	Smoking and Drinking	Marijuana	None
With tattoos	9	1	15*	1*	5
Without tattoos	10	0	15	0	5

* The individual who uses marijuana smokes and drinks as well. For the sake of convenience he is included in the 'Smoking and Drinking' as well as in the 'Marijuana' columns.

In the With Tattoos group, one individual met the DSM-IV-TR (APA, 2000) criteria for antisocial personality disorder and another individual met the criteria for borderline personality disorder. Thus, out of 30 men with tattoos, 2 subjects had a

personality disorder, while none in the without tattoo group had any personality disorder.

Table 3 gives the details of the motivations behind getting tattooed in subjects of the with tattoos group. It was seen that 73.33% of the sample, have reported "Fashion / To Look Good" as their reason behind getting tattooed. 13.33% of the group opted for tattooing out of love for a special person or a loved pet. While 6.67% wanted to look different by sporting a tattoo and another 6.67% feel that they got the tattoo "Just Like That". On exploratory further both reported that they do not have a reason why they wanted a tattoo.

Table 3: Major motivational factors for getting tattooed

	Fashion / To Look Good	Special Someone (Person/ Animal)	To Look Different	Just Like That / Don't Have a Reason
Number	22	4	2	2
%	73.33	13.33	6.67	6.67

Table 4 shows that there is a significant correlation between the number of tattoos and Openness to Experience (Spearman's $\rho=0.431$; $p<0.05$). No significant correlation was found on other variables.

Table 4: Correlation between the number of tattoos and the Self Perceived Body Image, Neurotic Signs and Symptoms and the Dimensions of Personality

Variables	r	p
Self Perceived Body Image	0.231	0.219
Neurotic Signs and Symptoms	-0.068	0.722
Dimensions of Personality	Neuroticism	0.061 0.75
	Extraversion	0.079 0.676
	Openness to Experience	0.431 0.018*
	Agreeableness	0.324 0.08
	Conscientiousness	0.074 0.699

* $p<0.05$ level (2-tailed)

DISCUSSION

Much has been said about tattoos, but not in India. Tattoos have now become a fashion trend among the youth of the country. But it has not yet attracted the attention of the scientific community in India. Curiosity, and also the lack of empirical data in an Indian context, fuelled the interest in conducting this study on men with tattoos living in Kolkata.

Carroll and Anderson (2002) in their study on adolescent girls have found that the greater the numbers of body modifications, the more are the negative feelings toward the body. Contrary to this, in the study of Joseph (2010) there was no difference in the level of body image and body satisfaction of subjects with and without tattoos. In the present study, results indicate that men with tattoos have a significantly higher level of body image perception than those without tattoos (Table 1). This finding does not support the findings of Carroll and Anderson (2002). This might be because of the fact that the sample in the present study is essentially non-western, who are guided by different beliefs, values and attitudes. Secondly, in Carroll and Anderson's (2002) study, the volunteers are adolescent girls, while the present study the focus is on adult males. Also, the difference in the sample structures could have led to the difference.

An important observation in the present study was that most of the men in the sample had well maintained physique; they were fashion conscious and gave great importance to their looks. Koziel et al (2010) propose tattoos and piercings as markers of body symmetry and consider them to be indicators of good health and strong genes. They have found that tattooed and/or pierced male's body was more symmetrical than that of tattooed and/or pierced females and non-tattooed participants. Houghton et al (1995) have noted that most participants in their study were motivated to get tattooed by the desire to improve appearance and because they perceived tattooing as a viable art form. Claes et al (2005) have found that tattooing is clearly driven by aesthetical reasons. The biggest motivator of getting a tattoo in the present study too was 'fashion' or 'to look good' (Table 3).

Drews et al (2000) have reported that tattooed males considered themselves more attractive than their non-tattooed peers. Even though the level of narcissism of the subjects was not directly assessed in the present study, it might be said that people with tattoos are more narcissistic than normal controls, as they either consider themselves to be more attractive or try to become more attractive by tattooing. Also, by observation of the type of tattoos participants of the present study had, it was noted that many of them chose to get their own names (in English or in other languages), or initials, or their zodiac-signs tattooed. This also highlights the narcissistic element in them.

The level of agreeableness of men with tattoos in the present study was significantly lower than that of men without tattoos (Table 1). This finding supports the finding of Tate and Shelton (2008) who have too found that tattooed participants,

as compared to their non-tattooed counterparts, scored significantly lower on agreeableness. This indicates that men with tattoos are more competitive, hostile, indifferent, jealous, out-spoken, spiteful and self-centered. It might be inferred that self-love is an important aspect of their personality in such men. They want themselves to do better, to be better, and are envious of others who are better. They are essentially narcissists, which complements the interpretation of higher body-image perception of men with tattoos.

In the study of Dorton et al (2008), most of the men with tattoos identified various positive reasons for getting their tattoos. Remembrance/ commemoration/ sentimental reason were a few of them. In the present study too, a large portion of the participants had tattoos to express their love for a special someone, be it a parent, a lover, or a pet. Since tattooing is a painful process and it is a permanent change, they feel that there is no better way of expressing love and devotion towards someone. It might be said that these individuals are not afraid to invest in relationships. They find it easy to get close to others and do not fret about getting too dependent. They exhibit a secure attachment style (Ainsworth, 1973).

An urge to look different was expressed as a motivating factor by some participants. According to Stirn (2007) a tattoo, or rather any form of body modification, is a sign that serves to express individuality and identity. Tate and Shelton (2008) also have found a significantly higher need for uniqueness among tattooed participants, as compared to their non-tattooed counterparts.

Though few participants could not pinpoint any concrete reason for getting a tattoo, all the participants knew someone in their friend circle who had a tattoo. Some even had family members who had tattoos. Probably the process of getting a tattoo is one of social modeling (Bandura, 1977). Farrow et al (1991) have found peer-modeling as a major motivator behind getting a tattoo. Roberts et al (2006) have found that tattoos among both friends and family were positively correlated with respondents' having a tattoo. The magnitude of friends' influence is about double the influence of family. Also, media plays a very important role behind motivating people to get tattoos. Many people in the entertainment industry in India have tattoos. They set fashion trends for people to follow. Stirn (2007) wrote that body modifications reflect changed attitude towards the human body and body art as well as following fashion trends.

Men with tattoos had a significantly lower level of neuroticism than men without tattoos (Table 1). The number of neurotic signs and symptoms though not differing significantly, is also lesser for men with tattoos than men without tattoos. None of them

have any regrets about their tattoos. Individuals who score low in neuroticism are more emotionally stable and less reactive to stress. They tend to be calm, even tempered, and less likely to feel tense or rattled. Although they are low in negative emotion, they are not necessarily high on positive emotion. Being high on positive emotion is an element of the independent trait of extraversion. However in the present study, individuals with tattoos have a significantly higher level of extraversion. Individuals who score low on neuroticism (particularly those who are also high on extraversion) generally report more happiness and satisfaction with their lives (Passer & Smith, 2009).

Copes and Forsyth (1993) have stated that tattoos are signs of extraversion. One of the key facets of extraversion is sensation seeking (Costa & McCrae, 1992). There have been studies which confirm that tattoos are correlated with sensation seeking (Stirn, 2007; Joseph, 2010). People high in sensation-seeking tend to engage in risk behaviour. Substance abuse is one such form of risk-taking behaviour that has been considered in the present study. It can be seen that abuse of marijuana while present in the 'With Tattoo' group, was absent in the 'Without Tattoo' group. Also, though the number of smokers was higher for the group 'Without Tattoos', the number of drinkers is higher for the group 'With Tattoos' (Table 2). The results agree with the study of Forbes (2001) who has found that tattoos and piercings in college students are associated significantly with more risk-taking behaviour and greater use of alcohol and marijuana. The greater presence of substance abuse among people with tattoos has been confirmed by many other studies (Cardasis et al, 2008; Claes et al, 2005; Nathanson et al, 2005; Farrow et al, 1991; Raspa & Cusack, 1990).

Among the other dimensions of Personality, openness to experience is significantly higher for men with tattoos than men without tattoos in the present study (Table 1). This was also found in the study of Nathanson et al (2005). Also, in the present study, a significant level of correlation has been established between the number of tattoos and the level of openness to experience of an individual (Table 4). Openness to experience is a measure of depth, breadth and variability in a person's interest in experiences. People with a high openness to experience have broad interests, are liberal and like novelty (Heinström, 2003). They are likely to try new things and seek out new experiences. This complements the finding that people with tattoos have a greater need for sensation seeking.

In the present study, the level of conscientiousness is slightly higher for men with tattoos than men without tattoos, though there is no significant difference among the two groups (Table 1). However, Tate and Shelton's study in 2008 revealed that the

level of conscientiousness for subjects with tattoos was lower than that of men without tattoos. Probably, the difference in the social background, and the composition of and number of subjects in the sample has led to the difference. Also, since the number of subjects in the present study is very low, the results can't be generalized to the rest of the population of India.

A large number of previous studies on tattoos have focused on the presence of personality disorders. Two major personality disorders have been identified, one being Anti Social Personality Disorder (ASPD) (Cardasis et al, 2008; Raspa & Cusack, 1990) and the other being Borderline Personality Disorder (BPD) (Duggal & Fisher, 2002; Raspa & Cusack, 1990). In the present study too, a small percentage of ASPD and BPD among men with tattoos has been confirmed. Mental health practitioners need to be aware of the health and safety issues surrounding the tattooing procedure and be able to give appropriate advice to their patients if they wish to acquire a tattoo or get a tattoo removed (Khosla et al, 2010). Future studies need to be conducted on a larger scale to determine the psychic structure of people with tattoos throughout India. A comparison between people with tattoos and those with other forms of body modifications (like piercing or cosmetic surgery) may be done. Studies which target the job performances of people with tattoos may also be undertaken. The prominent limitation of the study is exclusion of female subjects. Considering the unavailability of sufficient number of female subjects with tattoos, the present study was restricted to men.

CONCLUSION

Though tattooing is an ancient practice, it has recently become quite popular with the youth in India. The present study found that men with tattoos have a better body image perception than men without tattoos. They are lower in neuroticism and agreeableness, and higher in extraversion and openness to experience. The number of tattoos of an individual is directly related to the level of his openness to experience.

Men with tattoos are more likely to suffer from personality disorders, especially antisocial and borderline personality disorders, and substance dependence. However, the present study is too preliminary to make any generalizations based on the results.

A lot of negative stereotype is present against men with tattoos. The focus must be to increase the awareness of the general public regarding tattoos, so that men with tattoos are not

stigmatized unnecessarily. Even employers must be counseled so that they do not have any prejudice against men with tattoos. This will help create more job opportunities for them and make their surrounding more congenial.

REFERENCES

- Ahmed, W. (2006) Ulki. Banglapedia, National Encyclopedia of Bangladesh [http://www.banglapedia.org/httpdocs/HT/U_0011.HTM], Accessed on November 12th, 2011.
- Ainsworth, M.D.S. (1973). The development of infant-mother attachment. In: Caldwell, B., Ricciuti, H. (Eds), Review of child development research (Volume 3). Chicago: University of Chicago Press.
- American Psychiatric Association. (2000) Diagnostic and statistical manual of mental disorders (4th edition, Text Revised) Washington DC: American Psychiatric Association.
- Bandura, A (1977) Social learning theory. Englewood Cliffs, New Jersey: Prentice-Hall.
- Cardasis, W., Huth-Bocks, A., Silk, K.R. (2008) Tattoos and antisocial personality disorder, *Personality and Mental Health*, 2, pp. 171–182, New York: John Wiley & Sons.
- Carroll, L. & Anderson, R. (2002) Body piercing, tattooing, self-esteem, and body investment in adolescent girls. *Adolescence*, 37, 627–637.
- Claes, L., Vandereycken, W., Vertommen, H. (2005) Self-Care Versus Self-Harm: Piercing, Tattooing, and Self-Injuring in Eating Disorders, *European eating disorders review*, 13, 11-18.
- Copes, J. H., & Forsyth, C. J. (1993) The tattoo: A social psychological explanation. *International Review of Modern Sociology*, 23, 83–89.
- Costa, P.T., & McCrae, R. (1992) NEO PI-R professional manual. Odessa, FL: Psychological Assessment Resources.
- Dorton, M. A., Martin, B. A., Leonard, R. L., et al (2008) Perceptions of tattooing on oneself and others. Poster presented at the annual Appalachian Student Research Forum. Johnson City: TN.
- Drews, D. R., Allison, C. K., Probst, J. R. (2000) Behavioural and self-concept differences in tattooed and nontattooed college students. *Psychological Reports*, 86, 475–481.
- Duggal, H.S. & Fisher, B. (2002) Repetitive Tattooing in Borderline Personality and Obsessive Compulsive Disorder, *Indian Journal of Psychiatry*, 44, 190–192.
- Farrow, J.A., Schwartz, R.H., Vanderleeuw, J. (1991) Tattooing behaviour in adolescence. A comparison study. *American Journal of Diseases of Children*, 145, 184–187.
- Forbes, G. B. (2001) College students with tattoos and piercing: Motives, family experiences, personality factors, and perception by others. *Psychological Reports*, 89, 774–786.
- Heinström, J. (2003) Five personality dimensions and their influence on information behaviour, *Information Research*, 9, paper 165 (Available at <http://InformationR.net/ir/9-1/paper165.html>).
- Houghton, S., Durkin, K., Turbett, A. (1995) Public health aspects of tattooing among Australian adults. *Australian Journal of Public Health*, 19, 425–427.
- Joseph, M. (2010) Sensation seeking and body image among people with body modification, Washington College Psychology Senior Capstone Experience, 123.
- Khosla, V., Joseph, V., Gordon, H. (2010) Tattoos: What is their significance? *Advances in Psychiatric Treatment*, 16, 281–287.
- Koziel, S., Kretschmer, W., Pawlowski, B. (2010) Tattoo and Piercing as Signals of Biological Quality, *Evolution and Human Behaviour*, 31, 187–192.
- Nathanson, C., Paulhus, D. L., Williams, K. M. (2006) Personality and misconduct correlates of body modification and other cultural deviance markers. *Journal of Research in Personality*, 40, 779–802.
- Passer, M.W. & Smith, R.E (2009) *Psychology: The science of mind and behaviour*. New York: McGraw-Hill.
- Raspa, R., & Cusack, J. (1990) Psychiatric implications of tattoos. *American Family Physician*, 41, 1481–1486.
- Richmond, V. P. (1998) Image fixation questionnaire. In: Richmond, V.P., McCroskey, J.C. (Eds), *Nonverbal behaviour in interpersonal relations*, pp. 23, Boston: Allyn and Bacon.
- Roberts, A.E., Koch, J.R., Armstrong, M.L., et al (2006) Correlates of tattoos and reference groups, *Psychological Reports*, 99, 933–934
- Saccaggi, C., Prinsloo, A., Casimjee, N. (2007) *Imaging the Body: A discourse analysis of the writings of people with tattoos*, Unpublished Dissertation, Department of Psychology, University of Pretoria.
- Self Reporting Questionnaire. (1994) Division of Mental Health, Geneva: World Health Organization.
- Stirn, A. (2007) My body belongs to me. Cultural history and psychology of piercings and tattoos., *Therapeutische Umschau. Revue therapeutique*, 64, 115-119.
- Tate, J.C. & Shelton, B.L. (2008) Personality correlates of tattooing and body piercing in a college sample: The kids are alright. *Personality and Individual Differences*, 45, 281–285.
- The Pocket Oxford Dictionary of Current English. (1996) Third Impression. pp.934, New Delhi: Oxford University Press.
- Van Dinter, M.H. (2005) *The World of Tattoo*. Amsterdam: KIT Publishers.

1. **Ms. Parnasha Gupta** (Corresponding author), MA, Research Student, Department of Applied Psychology, University of Calcutta, Kolkata-700102. Email: parnasha.g@gmail.com
2. **Dr. Sadhan Dasgupta**, PhD, Associate Professor, Department of Applied Psychology, University of Calcutta, Kolkata- 700039

Research Article...

USE OF STORIES IN COUNSELLING AND PSYCHOTHERAPY – AN INDIAN EXPERIENCE

Dharitri Ramaprasad¹, Lata Hemchand²

Abstract

Background: Stories and myths have been major ways by which culture shapes the life of its members. They have been used to impart values of living, to teach right conduct and also help people to cope with various personal as well as social problems. **Objective:** The present paper is an attempt to highlight the usefulness of stories in psychotherapy in a retrospective study. **Method:** Therapy records of clients were analyzed in terms of the content of client story, the narrated story, stage of therapy when the story was narrated, response of the clients, the process involved and the purpose it served. Nine case illustrations are presented. **Results:** Stories help clients to contextualize their problems and experiences. They provide, anchor and have a mirroring function. They facilitate ventilation and reconnecting. Stories provide an opportunity to reframe perception of the problem and develop new healthier ways to deal with them. **Conclusions:** Stories can be powerful tool to facilitate the change process of counselling and psychotherapy.

Key Words: *Psychotherapy, stories, myths, archetype*

INTRODUCTION

Stories have been an integral part of most cultures. Myths and stories play a major role in how a culture shapes the life and realities of its members. These help one to make sense of the world and assign new meanings to personal reality (Mikulas, 2002). Stories provide commonalities with other members in the culture and help in finding connectedness and feelings of belongingness. According to Young (2002), stories have symbolic meaning which teach us to pay attention to everything that happens in life and allow us to reconnect with a dimension beyond ordinary times. Peseschkian (1985) opines that stories have a healing quality and function, hence can be used as mediator between the therapist and the patient. Stories give the client a basis for identification and a sense of protection. These facilitate sharing and ventilation. Stories are not only entertaining but also allow an interesting alternative view of everyday problems.

According to Carl Jung, mythology is the symbolism of a culture and it has the strength to connect to the subconscious and the archetypes. Jung's work on understanding the cultural symbolism is extensive. He emphasized understanding of symbolic meaning of client fantasies, myths, and stories to understand the person's inner life as it directly connects to the cultures mythological characters (Jung, 1967). Campbell and Moyers (1988) emphasize the subconscious message that

lies in the myths. Campbell saw myths as operating on four levels simultaneously: 1. Cosmological, 2. Metaphysical, 3. Sociological, and 4. Psychological.

Rao and Brahmaidananda (2007) while discussing the cultural practices in the Indian tradition indicated that stories served as means to help people confront their own experiences in an indirect way and gave them time to assimilate them into their own experiences. To some people stories point out ways out of their problems and to some they act as a simple reaffirmation of power of human will and others find guidance in moments of indecisiveness and comfort of knowing that someone has walked the path before him/her. They reiterate that stories generally put people at ease and offer room for expanded thought.

Attempts have been made to understand the usefulness of Indian mythology in clinical practice. Shamsundar (1991) made an attempt to compile parts of texts pertaining to psychological distress and related issues, from the major works of Indian mythology. Shamsundar (1993) further pointed out that mythological material could be successfully used in the psychotherapeutic work and can stimulate, facilitate association as well as instill insight in patients or family members. Stories can be used in explaining the patient about etiology, principles of management, or an alternative mode of coping.

An example of a collection of stories in Indian mythology is contained in Yoga Vasishtha, considered as one of the hallmarks of Indian scriptures. It is a dialogue between sage Vasishtha and Shri Rama where Rama is in deep melancholy during his youth and finds no meaning in continuing a worldly life. Sage Vasishtha used several stories as means to impart the wisdom of self-realization to Rama.

There are several examples of stories within the two great epics of the Mahabharata and the Ramayana. Many of the Upanishads also make use of stories to illustrate certain profound truths. Specifically the Katha-Upanishad, which by the very name (the meaning of 'Katha' is story in Sanskrit) indicates that it uses stories as a major medium to communicate its philosophical thought.

The Bible stories within the old and New Testament, the Zen stories within Buddhism, and the stories in the Islamic tradition are all attempts to teach human values through stories symbolically.

MATERIAL AND METHOD

Objective

The present paper intends to understand and highlight the role of stories in the therapeutic process through case illustrations.

Methodology

Therapy records of clients were analyzed in terms of the process involved when a story was narrated during the therapy sessions. Only the part wherein stories were used are described. The therapeutic process, otherwise involved many other aspects. Use of stories was entirely spontaneous on the part of the therapist and there were no preplanned intention to do so. The therapy records were analyzed in terms of the following aspects:

- The content of the client story and the theme of the narrated story
- The stage in therapy when the story was made use of
- How was it received by the client
- Response of the client
- The process involved
- The purpose it served

CASE 1

A 32 year old lady, graduate, married, from a conservative middle class family came with complaints of feeling depressed, not able to concentrate and disturbed sleep. She described herself as a sensitive person and could not 'accept criticism from others'. She was very upset about one of her close relatives criticizing, using abusive language and calling her names. In the sessions, she would repeatedly get angry and upset while talking about the incidents and was not ready to do anything about it. It was as if she liked to talk about it and vent her anger. At this point the therapist narrated a story from Buddha's life (Sukhbodhanand, 2005). She listened to the story and became silent. She subsequently shared her feelings of anger which was much deep rooted arising out of other incidences in her life. Client asked a question 'Do you think we can do this – meaning ignore it and not be affected?' The therapist reflected the question back to her. The client said 'may be. I need to think'. In the next session after 2 weeks she appeared cheerful and relaxed. She laughed and said 'that was a nice story. I can use it, it did work for me. Why should I accept everything that comes my way? I have the right to reject them and be selective'. She reported felt better and thoughts of the events had also reduced considerably. Subsequently she developed a different perspective that spoken words are person's own mind set/state and it does not necessarily reflect on the person towards whom the words are directed. This changed interpretation had significant facilitative impact on the further therapeutic process.

CASE 2

A 55 year old man, highly acclaimed academician and a professor at a premier institute was suffering from major depressive disorder for five years. He was on antidepressant medication but there was little improvement in his condition. He had a healthy relationship with his wife who was very supportive. He came from an elite family with members making mark internationally, in fields such as science, law and medicine. His main cause of distress was his 'mediocre achievement' as compared to his family members. He would constantly brood over it and felt helpless. He had interest in spirituality especially in the Indian context. Keeping this in mind, the therapist narrated the story of Dharmavyadha from the epic Mahabharata (Vivekananda, 1990) and asked him to make a note of the insights that he could gather from it. In the next session the patient came up with the following statements:

1. The attitude with which one does work is of greater importance than the end result.
2. One has to consider every work as God's work and there is nothing superior or inferior about it.
3. The feeling of superiority or inferiority based on one's performance alone is not helpful for overall growth.

The client was asked whether he could apply these insights to his own situation, enabling to a reformed perspective. He took some time over it and stated that he could see himself fighting a lost battle by comparing himself with others and by feeling inferior. How it was a futile exercise and he needed to focus on developing a detachment from it. He could also clearly see that his perception of self as being inferior was the root cause of his melancholy. There was a gradual acceptance of these insights which resulted in reducing his distress and hopelessness. The frequency and intensity of problems reduced considerably. But his depressive symptoms did not disappear completely.

CASE 3

A 38 year old married lady, with a postgraduate degree, employed as a lecturer, came with complaints of weeping spells, irritability, headache and tension. She would frequently get angry mainly towards her significant and close one's who had been 'unreasonable and irrational' in the past. There were few events about which she kept ruminating throughout the session, at times considering that relations were more than cordial. She would be concerned about repeated sharing of the same issues. As she expressed this concern she was told the story of a master Sanyasi and his disciple (Sukhbodhanand, 2005). The client was critical about the event in the story and she almost narrated it again. Meanwhile she started drawing and discussing the similarities in her thinking and the disciple in the story. At this point she became silent and became thoughtful. It was suggested to her that she reflect on the content of the story and contemplate on it. In the next session she appeared less agitated and was composed. She wondered as to why she is carrying the baggage of the past in her mind and troubling herself. With this it was easy for her to work towards unloading herself and letting go.

CASE 4

50 year old man came with complaints of panic attacks, severe anxiety related to his health and fear of death. He was a known case of hypertension for last one year and was on treatment.

He was successfully running an advertising company and had no difficulty in facing business losses or any other work related problems. He was married and had two daughters. The elder daughter was employed in a software company and the younger one was studying in dentistry. He developed panic attacks following an episode of viral fever. He developed a sudden fear that he would die and his daughters would be orphaned. Since his wife was unemployed, she would not be able to handle their financial burden and family would be completely ruined. He would frequently get anxiety and panic attacks whenever he would hear of anyone's illness or he come across any information with regard to any disease in the media. He was taking medications and attending behaviour therapy sessions. Despite all these measures he continued to feel anxious, though his panic attacks had stopped. At this point of time, the therapist decided to use a relevant story from the Katha Upanishad (Gambhirananda, 1980) as a means of getting a different perspective towards death.

The story was narrated and the client was asked to reflect on it and come up with insights considered valuable in the story. His insights were as follows:

- Acceptance of one's death as an inevitable part of life helps us to face death calmly.
- Facing our fears squarely is the best way to handle them.

The client was able to come to terms with his fears following this and felt inspired by the main character in the story.

CASE 5

A young couple, married for about three years had difficulty in communicating with each other, as each one of them thought he or she was right and the other person should agree to his or her views. Any conversation would end up in a fight and accusations. They were unable to respect the differences and find a middle path or compromise. At a certain point a story of the crow and the parrot (Peseschkian, 1985) was narrated in a joint session. This led to an open discussion on personal point of view and what it means to respect others view. The solution to the problem in the story was then discussed in terms of available options. Couple was ready to discuss their differences and agree to disagree or to find a mid path/compromise when possible. They could see how their attitude could lead to a situation wherein they would be living a parallel life under one roof. This would only create a vacuum in their life – living without purpose.

CASE 6

A young couple married for four years with a one year old daughter was constantly fighting over the problem with in-laws (living separately). Whenever the parents-in-law visited the couple, they would be highly critical of daughter-in-law despite her best efforts to make them happy. She was highly emotional and couldn't accept the fact that even if the in-laws treated her badly, she had her husband's support and their critical comments need not disturb her relationship with her husband. She was unable to distance herself from their behaviour and comments. At this point of time the story of two Buddhist monks (Osho, 1992) was narrated. The client was asked to use this story to emotionally distance herself. Subsequently instead of spending 2-3 days over each comment, she would spend only one hour.

CASE 7

A 30 year old Chinese immigrant came with complaints of not being able to do his work in a consistent, disciplined manner, depressed mood, feeling of guilt, inadequacy and suicidal ideation. He was being treated by the psychiatrist with antidepressants and was showing gradual improvement. He was a musician by profession and had come to India to teach music in one of the well-known music schools. He was also a devout Christian and his prayer and devotion gave him a lot of strength. Whenever he was asked to perform on the stage, he had no confidence to do so and would get into a state of panic. Through the therapy sessions he had made enough improvement to brave a performance. During this phase of therapy, he called one evening and said that his music group had forced him to perform which he had accepted. However, after accepting he was so anxious that he wanted to run away from the situation, at the same time he could not let his group down. A sense of despair had gripped him and over the telephone he was saying he just wanted to end his life instead of going through this pain. The therapist asked him to slowly use his deep breathing to calm down and narrated the story of Job from the Bible (Borysenko, 1993) and asked the client whether he could identify himself with Job who had faced most heartrending situation by not losing faith in God. The therapist asked the client to reflect on the fact that by acting on his suicidal thoughts would he be able to show his own faith in God.

The client took sometime over it and finally called back to say that he was going to perform on the stage to prove his devotion

to God. Later he came and met the therapist and said that he was able to perform despite his initial anxiety and he was thankful that his faith in God had strengthened him mentally.

CASE 8

A young student after his 12th class got into a prestigious institute for his further education. He was extremely happy and excited. However, after about a year he felt very low and expressed his desire to quit as he felt 'he cannot cope with the demands'. He felt inadequate and inferior to others. He was worried about his inability to cope with the academic demands. His parents brought him for counselling. He had done reasonably well but found the competition tough and felt he could not achieve what he wanted to. We worked on building his self-esteem and the lost self-confidence. At a certain point the story of Hanuman and Jaambvaan from the epic Ramayana was narrated (Rajagopalachari, 1951). He found it very interesting and expressed his desire to read the abridged form of the epic. He did reflect on the story several times on his own and also discussed it in the sessions. This helped in removing the emotional block. He was more open to look at his skills and competencies.

CASE 9

A middle aged couple had difference of opinion on various issues leading to arguments, conflicts and criticism. Both of them held jobs that were demanding. Growing children (15yrs. old daughter and 12 yrs. old son) were also a matter of concern. As marital therapy progressed it became evident that the husband's perfectionist attitude toward wife and children contributed immensely to the conflict. His expectations were found not only to be high but also unrealistic. The story from Mahabharatha (Rajagopalachari, 1999) about Draupdi's desire to find a husband having certain qualities and subsequently having five husbands was narrated to him. There was a silence for almost 10 minutes. The therapist was relieved to see that story did strike a chord. Client said he never saw the event (Draupdi having five husbands) from this perspective but viewed it only as a part of the story of the epic. He was asked to reflect on the story. Nothing more was said and the session ended abruptly to the therapist discomfort. However, he did report for further sessions and was more amenable to change and see the other side of his beliefs and convictions. His views and unrealistic expectations showed changes in the due course.

RESULTS AND DISCUSSION

Stories have been used to impart values of life, to teach right conduct and to help people get over various social problems especially in the Eastern tradition. Stories have been an important tool for the spiritual and religious leaders.

Stories have found an important place in the process of counselling and psychotherapy for their therapeutic value. Mikulas (2002) believes that stories speak of many aspects of the human conditions and experiences, and thus can be useful in personal growth. These encourage reflection, understanding and relates to more deeper or symbolic level.

In the first case, story helped the client to reflect on her own life situation and more importantly her reactions. The client could relate to the possible solutions. She could change her perspective and thus learn to respond rather than react.

In the second case, story of Dharmavyadha facilitated the client to break away from his usual conditioned way of viewing work and achievements. The story provided him a totally new dimension of personal growth which the client had hitherto ignored. The fresh view which emerged through the essence of the story was able to reduce his feelings of inferiority.

In the third case, there was an element of identification. The story enabled the client to perceive the situations objectively and restructure the emotional responses. The story in a way acted as a mirror. In the words of Peseschkian (1985) the story had a mirror function. Mirroring helped the client to see herself and her reactions objectively. She could understand her self-defeating behaviour. This facilitated the change process.

In the fourth case, when the client heard the story of Nachiketa – a mere boy who faced death squarely to attain the knowledge of supreme self, it inspired him to face the inevitability of death. The concept of immortality of self as described in the story appealed to him and probably the archetypes he had formed in his childhood about the imperishable atman were revived through the story.

In the fifth case, story helped the couple to talk about their expectations, desires, frustrations and conflicts, thus facilitating ventilation of their concerns. Therapist could then suggest a change of position without attacking or contradicting the clients directly. It was easier for them to reinterpret their thoughts and feelings. The story functioned as an intermediary between the therapist and the couple, thus breaking the confrontation between the therapist and the couple and in turn preventing an aggressive reaction and/or resistance to change.

In the sixth and seventh case, clients easily identified with main characters and were ready to adopt the attitude of these characters. In the sixth case, the lady client, who became depressed and angry over the critical attitude of in-laws, saw the benefit of getting detached from it and not accepting their opinion as the whole truth while the seventh client was able to overcome his suicidal ideations through the biblical story of job. The story helped him to accept difficult situations as a test of his faith and take on the challenges.

In the eighth case of the student, story appeared to trigger off his fantasy life. The narration facilitated spontaneous analysis of the events and bringing in him a sense of wonderment. The story helped to uncover his anxieties and at the same time bring his desires for excellence closer to reality and in the process helped in overcoming the emotional barriers. These encouraged him to 'rediscover' his competencies and validate his hidden confidence. This condition has been termed as 'Hanuman Complex' (Wig, 2004).

In the ninth case of marital disharmony, therapy came to an impasse and narrating a story was an attempt to cross over this block. Client could gather the similarities between the story and the real life. The abruptness with which the session ended when the story was narrated clearly showed that there was a clear impact on the client's resistance; it facilitated a change in his phenomenological world. The story became a link or a mediating factor between the client and the therapist thus facilitating the therapeutic process.

Stories have a therapeutic value which help the client in contextualizing their problems or experiences, provide an anchor, facilitate ventilation and reconnecting. These offer an opportunity to reflect and get a different perspective on issues at hand. The clients can look at their attributional patterns objectively. One of the significant ways these mediate between the client and the therapist is by presenting a counter-concept on an important and serious issue in a subtle way. In this sense, stories with humour can also reduce tension in the interaction without hurting the client's feelings and breaks the resistance.

In the present analysis stories were found to serve the following purposes:

- Mirror function or a sounding board
- Model
- Mediation

- Triggering fantasy life
- Intermediacy – presenting profound truths indirectly and in a non-threatening way

These functions facilitated the change process by way of:

- Facilitating reflection
- Broadening of experience
- Bringing clarity to the problem situation and self defeating behaviour
- Change in perspective and adopting an objective view
- Re-interpretation of thoughts and feelings – cognitive re-appraisal
- Re-patterning of emotional responses like acceptance and detachment
- Facilitating positive imagery
- Breaking resistance

Parasher(2002), discussing the relevance of Puranic Myths and their efficacy in healing, also suggests that myths generate a creativity that enables individuals to go beyond the formal logical world of impositions and stress. He puts forth the idea that since creativity is essentially a natural act; its activation is integral to the healing process. Myths effectively enable such a process and also offer solutions to move beyond the individual's existing states of consciousness.

Imhasly-Gandhy (2001) strongly argues that Indian myths have great relevance for healing. She reports that using 'Puranic' stories helped her clients to elevate the active imagination beyond their present and initiate the subconscious with the help of what are called 'Samskaric' memories.

From Jungian perspective the possibility of evoking the cultural archetype in the clients through stories cannot be ruled out. According to Jung the collective unconscious, a central concept in Jungian theory, contains archetypes which are universal symbolic representations of a particular person, object or experience. Jung emphasized that these archetypes play a significant role in determining day to day reactions, attitudes, beliefs, and values. According to Jung, mythological patterns reflect the distinctive psyche of a given culture or religion and contain universal symbolic relevance. Myths, stories and their symbols help in bringing order out of psychological chaos.

Analysis of the cases highlighted the following aspects of using stories in therapy:

- The therapist should be familiar with the socio-cultural background of the client.
- The clients need to be familiar with the various epics and religious texts or they should be able to relate to the characters in the stories.
- Openness on the part of the client to view stories in a new light facilitates the process.
- The theme of the stories should be in harmony and should address the client issues.
- The stories were mostly narrated during the later sessions when the therapeutic relationship was well established.
- Most importantly, the stories facilitated and hastened the change process.
- Whichever therapeutic approach is followed, careful and appropriate use of stories can facilitate the change.

Stories also helped when there was resistance to change on the part of the client. Rigid belief patterns created resistance to other therapeutic strategies. They were very useful when the client was not able to view the problem from a different perspective. Stories were found to be useful when the therapeutic process reached an impasse and would not progress further.

CONCLUSION

Stories can be a very powerful tool in the process of counselling and psychotherapy when used judiciously. These provide an anchor and allow one to reconnect with the self on a changed dimension and provide direction to act in face of a problem. Stories can perform different functions warranted by the need of the client and have the capacity of bringing down the resistance of the clients. These possess a quality of disarming the client with a most unexpected dimension which was hitherto ignored. These also provide the client a new perspective of visualizing the problem. However, therapist needs to be sensitive about when and how the story should be used. It is important for the therapist to be aware of the objective with which the story is being used. Story as a tool cannot be uniformly applied in all cases. An intuitive understanding of what would appeal to the client is essential and religious – cultural background of the client needs to be considered before choosing the story.

REFERENCES

- Borysenko, J. (1993) *Fire in the Soul: A New Psychology of Spiritual Optimism*. pp 22-32, New York: Warner Books.
- Campbell, J. & Moyers, B. (1988) *The Power of Myth: An interview*. Betty Sue Flowers, New York: Doubleday.
- Gambhirananda, S. (1980) *Katha Upanishad with the Commentary of Shankaracharya*. pp 4-34, Kolkata: Advaita Ashrama.
- Imhasly-Gandhy, R. (2001) *The Psychology of love, wisdom of Indian mythology*. pp 65, New Delhi: Roli Books.
- Jung, C.G (1967) *Memories, Dreams, Reflections*. pp 153, 186, 166, 364, Collins: The Fontana Library, Theology and Philosophy
- Mikulus, W. L. (2002) *The Integrative Helper – Convergence of Eastern and Western Traditions*. pp 117-120, Australia: Brooks/Cole.
- Osho (199d) *Courage: The joy of living dangerously*. pp 110-112, New York: St. Martin's Griffin.
- Parasher, S. A. (2002) *Psychology, Puranic Myths, Creativity and Healing*. In: Balodhi, J.P., (Ed), *Application of Oriental Philosophical Thoughts in Mental Health*, NIMHANS Publication No. 47. pp 117-118
- Peseschkian, N.(1985) *Oriental Stories as tools in Psychotherapy*. pp 26-40, Indian Edition, Bangalore: Sterling Pub. Pvt. Ltd.
- Rajagopalachari, C. (1951) *Ramayana*. pp 305-313, Mumbai: Bharatiya Vidya Bhavan
- Rajagopalachari, C. (1999) *Mahābhārata*. 36th edition, pp 68-63. Mumbai: Bharatiya Vidya Bhavan.
- Rao, M. & Brahmavidananda, S.S. (2007). *The wave yearns to be water: Cultural practices in the Indian tradition to invoke wholeness*. Paper presented at the National Seminar on Indian Psychology: Theories and Models, Bangalore. Available at <http://ipi.org.in/texts/nsip-full/mrinalini.html>
- Shamsundar, C. (1991) *Psychiatric symptoms and cause – effects in Indian Mythology*. NIMHANS Journal, 9, 87-90.
- Shamsundar, C. (1993) *Therapeutic wisdom in Indian Mythology*. *American Journal of Psychotherapy*, 47, 443-450.
- Sukhbodhanand, S. (2005) *Meditation – The ultimate flowering*. Talks on Chap. VI of Bhagvadgita. pp 146-147, and pp 49, Prasanna Trust Publication.
- Vivekananda, S. (1990) *The complete works of Swamy Vivekananda*, Vol.1, pp 68-69, Kolkata: Advaita Ashram Publication.
- Wig, N.N. (2004) *Hanuman Complex and its Resolution: An illustration of psychotherapy from Indian mythology*. *Indian Journal of Psychiatry*, 46, 25 – 28.
- Young, J. (2002) *An interview with Jonathan Young by Joseph R. Dunn*. *Psych Journal*, 3. Retrieved from www.folkstory.com/articles/myth_in_therapy.html

-
1. **Dr. Dharitri Ramaprasad**, (Corresponding Author) (Clinical Psychologist), Professor, RFPG College for PSR, Bangalore-560 004, Email: dharitri_r@yahoo.co.in
 2. **Dr. Lata Hemchand**, (Clinical Psychologist), Professor, RFPG College for PSR, Bangalore
-

Research Article...

A COMMUNITY-BASED EXPLORATORY STUDY EXAMINING THE COPING STRATEGIES EMPLOYED BY FAMILY AND COMMUNITY MEMBERS FOR INDIVIDUALS WITH SUBSTANCE DEPENDENCE

Bir Singh Chavan¹, Nitin Gupta², Tanuja Kaushal³

ABSTRACT

Background: There is inadequate research on the coping strategies employed by caregivers of patients with substance dependence. Additionally, the Indian set-up is unique not only due to its inherent family and community structure, but also with the availability of family support in providing care in the community. This study was designed to (a) develop a Coping Questionnaire for caregivers, and (b) explore the coping strategies employed by family members and the local community in managing patients with substance dependence. **Method:** Cross-sectional design using convenience sampling, the study was carried out in both urban and rural parts of the city of Chandigarh. A specifically designed questionnaire (Tri-Dimensional Coping Questionnaire for Substance Dependence: Preliminary Version i.e. TCQSD) was used. Percentage Frequencies were calculated thereafter. Principle of 1/3rd was applied to determine most and least common coping strategies. **Results:** Using the TCQSD and applying Horney's construct of 3 domains, it was seen that the family members try to cope by making attempts to work along with, rather than against, the individual. Similar findings were obtained for the community i.e. the extended, close-knit component of the family. **Conclusions:** Although individuals with substance dependence cope by using their own preferred mechanisms, the families and community are supportive and accepting rather than rejecting, antagonistic and critical. In our view this provides mental health (and de-addiction) services with the opportunity of actively involving the families and local community in providing focused family+community interventions to manage substance dependence. This can be achieved by development of targeted, pragmatic yet comprehensive psychoeducation-cum-intervention management packages.

Key Words: Substance dependence, coping, family, community

The Paper won **Dr. B.B. Sethi Award** at 17th Annual Conference of Indian Association of Social Psychiatry at Kochi in 2010

INTRODUCTION

Patients with substance dependence are still considered as difficult to treat by mental health professionals and their families alike. Also, it is well established that families (or family members) of patients with mental illnesses experience significant 'burden of care' (Avasthi, 2010). Although maximum research has been carried out in schizophrenia, there is evidence to suggest that the 'burden of care' in substance dependence is comparable to that in schizophrenia (Kiran, 2004).

To manage this 'burden of care', family members tend to employ various methods of coping. The body of evidence and research in coping is again maximally studied in schizophrenia. Most commonly, coping strategies have been formulated

into sub-groups of 'problem-focused' and 'emotion-focused' strategies (Avasthi, 2010). Additional efforts have been made by researchers in the area of substance dependence into evaluating other models of coping (Orford, 1998; Orford et al, 2001).

Why focus on the family? This question has been addressed to by many researchers in numerous review articles. Nevertheless, we feel it important to briefly recapitulate the same, but from an Indian perspective. The traditional Indian joint family set-up is seen [a] as a source of social and economic support, [b] to tolerate deviant behaviour, and [c] to have the ability to take up additional roles and responsibilities during periods of crisis (Avasthi, 2010). It has also been elucidated that the family has

unique abilities that can be utilised in a therapeutic manner for the management of the mentally ill people (Sethi, 1989). Additionally, due to a proposed shift to community based psychiatric services in India, the family's role has got more embedded and strengthened (Avasthi, 2010).

In a country like India where the community health set-up infrastructure is well established, it is indeed surprising that there is paucity of literature discussing the role and effective use of community as a readily available and accessible resource of delivering mental health care in the community. Not only that, there appears to be minimal impact of the NMHP and DMHP in actively involving the community set-up and persons in the treatment and rehabilitation of persons with mental disorders and substance dependence. In an interdependent and collectivist society like India, the local community tends to function as an extended arm of the family, especially during 'crisis situations'.

In view of this evidence, and coupled with the authors' personal clinical experience, it was felt that there needs to be a further in-depth understanding of the 'coping mechanisms' employed by a family member and the local community.

MATERIAL AND METHOD

Aim

To assess the coping styles of the family and community for patients of substance dependence.

Objectives

- [1] To develop a questionnaire/instrument for eliciting coping methods adopted by family members and members of the community for managing individuals with substance dependence.
- [2] To evaluate the coping methods of family members for people with substance dependence.
- [3] To evaluate the coping methods of the local community for people with substance dependence.

Setting: The Department of Psychiatry, Government Medical College & Hospital-32, Chandigarh (GMCH-32) has been running community based de-addiction clinics and camps for more than 14 years. These are based in both urban and rural parts of the city of Chandigarh. As part of this assessment and treatment package, the treating team comprised of a psychiatrist, psychiatric social worker, and psychiatric nurse.

People residing in these catchment areas were approached as part of the community based visits for the purpose of this study.

Sample: There were three groups i.e. [a] Individuals- Patients who were suffering with an ICD-10 diagnosis of Substance Dependence; [b] Family members- Any person who was a major decision maker/ significant member of a family. (They comprised of people who had another family member that was dependent on substances or a representative of a family in which none was abusing any substances); [c] Community member- A significant person in the local village/area where the patients resided and belonged to one of the following categories (Member of Local Panchayat, Member of Religious Services, Member of Welfare Clubs, Members of Society with a significant say e.g. School Teachers).

Design: Cross-sectional with a single assessment.

Study period: 12 months i.e. January 2008 - December 2008.

Instrument (Tri-Dimensional Coping Questionnaire for Substance Dependence: Preliminary Version i.e. TCQSD): A questionnaire was specially developed for this study. Based on the clinical experience of the clinicians, items/statements were formulated by a group comprising of consultant psychiatrist, consultant psychologist, and psychiatric social worker. These were formulated in order to elicit coping styles employed for managing substance misuse/dependence. The items were developed for individuals [I] (who were misusing substances), family members [F] and community members [C]. The items were rated on a 3-point scale i.e. yes/no/others (i.e. not applicable/not sure/not available). Face validity of the items in the questionnaire was confirmed after discussion with other professional colleagues. This 49-item questionnaire comprised 11 items for Individual, 25 items for Family Member, and 13 items for community member.

Method: Convenience sampling was employed in which any patient with substance dependence or a key member of a family or a key community person (as outlined under 'sample' earlier) was approached and explained about the study. If they gave informed consent, then the questionnaire was administered by the field worker. Any person who did not give consent was not administered the TCQSD.

Statistical Analysis: The data was analysed using 11.0 version of SPSS. Frequency tabulation and percentages were calculated thereafter.

The principle of 1/3rds was employed to divide the coping strategy items in the I, F and C categories into three groups, with those in the upper 1/3rd were deemed to be most common, and those in the lower 1/3rd were deemed to be the least common.

RESULTS

A total of 244 people participated in the study. These comprised 82 individuals who were dependent on various substances (alcohol, opioids, cannabis), 74 family members, and 88 community members.

Table 1 lists the frequency of coping strategies employed by Individuals (I). As can be seen, the most common coping strategies are represented by items no.9,2,3,10 (range=74.39%-68.29%) whereas coping strategies represented by items no.8,4,7 were least commonly employed (range=52.43%-45.12%).

Table 1: Individual Sub-Group: Frequency of Coping Strategies Used

Rank Order	Item No.	Item	Percentage Frequency
1	9	With the help of drugs, I do no care about anyone and do whatever I feel like.	74.39%
2	2	I try not to meet my family members	71.95%
3	3	I try to talk less after I reach home.	68.29%
3	10	I try to leave drugs or reduce their dosage in my own way (e.g. take tablets instead of alcohol)	68.29%
5	1	I quietly go to sleep as soon as I reach home.	67.07%
6	5	I use a mouth freshener (e.g. elaichi, saunf) so that my family members do not get to know.	65.86%
7	11	I reach home late after everybody has fallen asleep.	58.53%
8	6	After I reach home, I behave amicably with my family members	56.09%
9	8	I go to my friend's place.	52.43%
10	4	I confess to my family members that I have used drugs today.	50%
11	7	After I reach home, I make an excuse of being unwell and go and lie down	45.12%

Table 2 lists the frequency of coping strategies employed by Family members (F). As can be seen, the most common coping strategies were for items no.18, 17,1,25,23,21,24,22 (range=100%-71.62%) whereas items no.10,2,13,5,6,9,12 were least commonly employed (range=52.70%-22.97%).

Table 2: Family Sub-Group: Frequency of Coping Strategies Used

Rank Order	Item no.	Item	Percentage Frequency
1	18	Try to make patient understand	100%
2	17	Try to make patient aware about the harmful effects of drugs.	95.94%
3	1	Behave in an angry manner with patient	82.43%
3	25	Take patient to a psychiatrist for treatment.	82.43%
5	23	Do not let patient go out anywhere all alone.	78.37%
6	21	Tell people around the patient not to lend money to him/her	77.02%
6	24	Keep a constant check/eye on the patient.	77.02%
8	22	Prohibit his/her friends (who are using drugs) from visiting the patient.	71.62%
9	19	Take care that patient does not fall from his bed while sleeping	67.56%
10	3	Threaten patient that he/she will have to leave the home	63.51%
11	4	Stop talking to the patient.	62.16%
12	14	Take him to religious places and make him do charity and take an oath.	58.10%
12	15	Take patient to meet the Sarpanch in order to make him understand to leave drugs	58.10%
14	7	Threaten patient that his wife and children will be sent to in-laws place	55.40%
14	8	Destroy bottles of alcohol and conceal drugs somewhere in the house.	55.40%
16	11	Start medication that will help in stopping drug use without letting the patient know.	54.05%
16	16	Family takes control of patient's income.	54.05%
16	20	Take all the money out of patient's purse/ pocket.	54.05%
19	10	Scare the patient by mentioning about police	52.70%
20	2	Fight with the patient	50%
21	13	Try to change the patient's profession.	45.94%
22	5	Refuse to provide food to the patient.	41.89%
23	6	Threaten patient that he/she will be disowned from any inheritance	40.54%
24	9	Try to get the patient treated through black magic or faith healers	35.13%
25	12	Send patient to some relative's place.	22.97%

Table 3 lists the frequency of coping strategies employed by Community Members (C). As can be seen, the most common coping strategies were for items no.5,1,7,11 (range=69.31%-45.45%) whereas items no.12,2,3,9 were least commonly employed (range=20.45%-4.54%).

Table 3: Community Sub-Group: Frequency of Coping Strategies Used

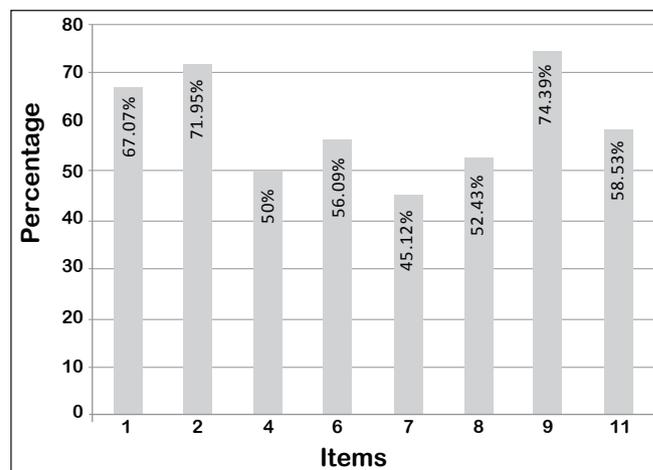
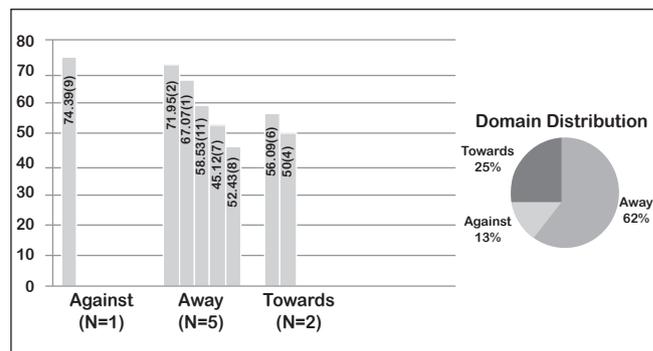
Rank Order	Item no.	Item	Percentage Frequency
1	5	Encourage the patient to quit drugs	69.31%
2	1	Call the patient as alcoholic/drug user and do not talk to him	64.77%
3	7	Make the patient's family members understand that they should help him/her in treatment for his drug use	62.50%
4	11	Discourage others to maintain contact with such patients	45.45%
5	8	Take the help of police so that no one is able to sell drugs	32.95%
5	10	In case of misbehaviour by the patient, get him/her locked in police station	32.95%
7	4	Provide him with the drug so that he does not disturb others for drugs	28.40%
8	6	Take him/her to the hospital for treatment and bear all the expenses	26.13%
9	13	Considering drugs as a common phenomenon do not pay attention to it	25%
10	12	Discourage others to keep any contact with the patient's family and also socially boycott them	20.45%
11	2	Beat the patient	18.18%
12	3	Banish from the village	11.36%
13	9	Lock the patient inside his/her house	4.54%

Before enumerating the next set of results, we would like to provide a background of the methodology adopted for the same. Using Horney's construct of 'neurotic needs' (Horney, 1945), the items in each of the Individual (I), Family (F), and Community (C) categories were divided into three domains i.e. 'moving towards person' (T), 'moving away from person' (A), and 'moving against person' (Ag). Following this, the questionnaire was given to a group of eight psychologists and psychiatrists. They were asked to independently classify each of the 49 total items into the three groups as per Horney. Based on their responses, frequency tabulation (and percentage calculation) was done for each item by summation of the scores obtained from each of the eight experts. Applying the principle of 1/3rd, any item which scored less than 33% was termed as being 'ambiguous' and was deemed to be non classifiable as per Horney's construct. All the items in the three sub-groups (I,F,C) were subjected to this process. This provided us with a total of 32 (eight Individual, 16 Family, and eight Community) items.

Individual Sub-Group

This comprised eight items; with 1 item classified in 'against' domain, 5 items in 'away' domain, and 2 items in 'towards' domain.

Further analysis of the frequency of coping strategies being used by individuals is depicted in Figures 1 & 2. Applying the principle of 1/3rds, item nos. 9 ('away' domain), 2 ('against' domain), and 1 ('against' domain) were the three most commonly used. The three least common used strategies were item nos. 8 ('away' domain), 4 ('towards' domain), and 7 ('away' domain).

Fig. 1: Individual sub group: Frequency of coping strategies**Fig. 2:** Individual category items: Domain-wise % (Item No.)

Family Sub-Group

This comprised 16 items; with 7 items classified in 'against' domain, 2 items in 'away' domain, and 7 items in 'towards' domain.

Further analysis of the frequency of coping strategies being used by individuals is depicted in Figures 3 & 4. Applying the principle of 1/3rds, item nos. 18 ('towards' domain), 17 ('towards' domain), 1 ('against' domain), 25 ('towards' domain), and 23 ('towards' domain) were the five most commonly used. The five least common used strategies were item nos. 10 ('against' domain), 2 ('against' domain), 5 ('against' domain), 6 ('against' domain) and 12 ('away' domain).

Fig. 3: Family Sub-Group : Frequency of Coping Strategies

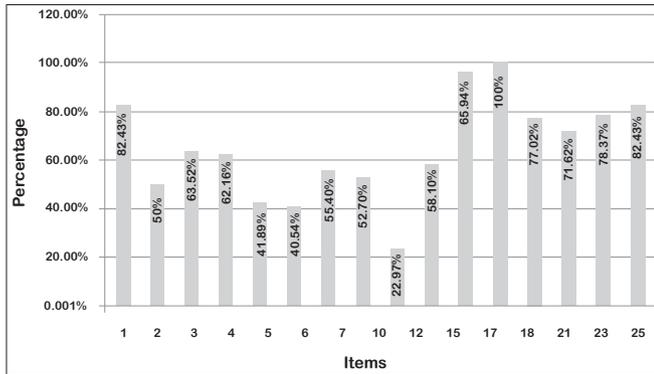
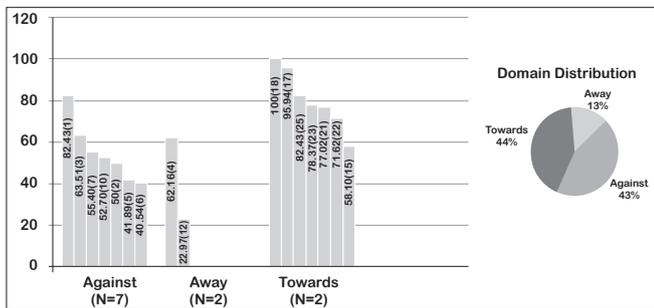


Fig. 4: Family Category Items : Domain-wise Percentage (Item No.)



Community Sub-Group

This comprised 8 items; with 2 items classified in 'against' domain, 1 item in 'away' domain, and 5 items in 'towards' domain. Further analysis of the frequency of coping strategies being used by individuals is depicted in Figures 5 & 6. Applying the principle of 1/3rds, item nos. 5 ('towards' domain), 7 ('towards' domain), and 4 ('towards' domain) were the three most commonly used. The three least common used strategies were item nos. 12 ('away' domain), 2 ('against' domain), and 9 ('against' domain).

Fig. 5: Community Sub-Group: Frequency of Coping Strategies

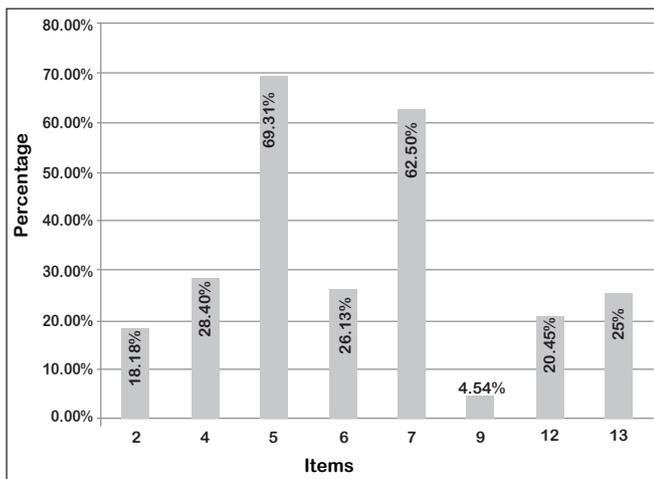
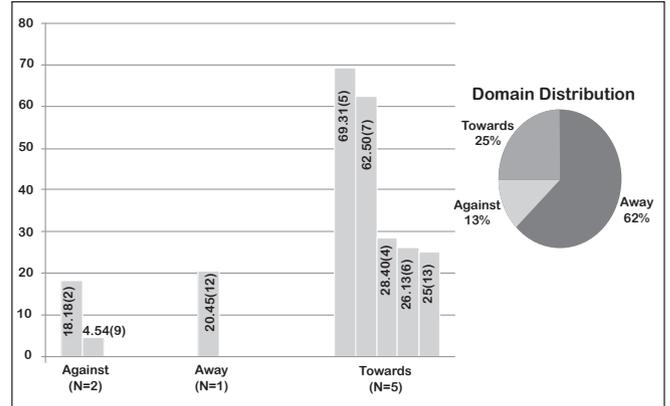


Fig. 6: Community Category Items: Domain-wise % (Item no.)



DISCUSSION

Indian cultural values and norms are more in keeping with the collectivist culture than the individualistic culture of the West (Orford et al, 2001). Families have consistently been identified as the primary caregivers, but in a collectivist society like India the community also tends to act as an extended part of the family. This is probably found more commonly in rural than urban localities. The aim of this study was to explore various coping strategies adopted by members of family and community for managing patients with substance dependence in the community. There is sufficient research evidence related to coping strategies by individuals who are suffering with substance dependence, but is practically limited for caregivers (i.e. families) and none on the local community.

Objective 1

The Department has been involved in community based de-addiction services for over 14 years now with an in-depth knowledge and strong, well-established links with the catchment areas being provided these services for patients with mental disorders and substance dependence (Chavan & Arun, 1999; Chavan & Gupta, 2004; Arun et al, 2004; Chavan et al, 2007). This can be attributed to the continuity of care and availability of services/resources over this time period. This also provided a unique opportunity for the professionals to observe and understand the strategies independently adopted by the families of patients with substance dependence and additional efforts by the local community in supporting the same. The local community was seen to be supporting by being intimately involved with the successful setting-up, conduct and implementation of the 'community de-addiction camps' on a consistent basis. However, these observation can best be termed as intuitive and/or conjectural. In order to try and validate the same, the TCQSD was constructed.

TCQSD was developed keeping in view that the patient with substance dependence tries to cope by oneself and also has the family and community available as potential resources. Hence, there were three sections of the questionnaire for eliciting coping strategies by individual, family, and community. It needs to be clarified here that the questions in each section were not common across the sections; especially so for 'family' and 'community' sections as the aim was to elicit different coping strategies by different support mechanisms for the individual.

Literature on coping by caregivers has focused more on the 'problem-focused' strategies (Avasthi, 2010). The TCQSD had items which potentially tapped the 'emotion-focused' strategies. The TCQSD items were constructed based on the observations of the treating team were based on the fact that the family of patients with substance dependence experienced considerable and frequent 'emotional reactions' which manifested in certain behaviours showing a set pattern. Orford et al (1998, 2001) have used a 'Coping Questionnaire' on caregivers from the UK and Mexico that had adopted a reasonably similar approach to ours.

We were able to demonstrate face validity and, to some extent, content validity of this instrument. However, it is acknowledged that the TCQSD has not been subject to rigorous assessment of its psychometric properties. Hence, our naming it as the TCQSD-Preliminary Version. We are currently in the process of further assessing the psychometric properties to determine a final version.

In our view, the TCQSD is unique as [a] it designed to assess 'emotion-based' coping strategies, [b] is predominantly focused on assessing the family member's (than individual) coping strategies, and [c] has three different sections providing a composite assessment of individuals/family members/local community.

Objectives 2 & 3

Although the focus is on coping strategies of the caregivers, we would like to briefly touch upon and discuss the coping strategies employed by the individuals with substance dependence in order to give perspective to the ensuing discussion.

Individuals: The individuals appeared to be employing non-confrontational and/or avoidant coping strategies more commonly. There was relatively less frequent use of 'positive/problem-solving' coping strategies (e.g. behaving amicably,

telling family about use of drugs). This pattern could be due to multiple reasons e.g. not wanting to leave the drug (poor motivation), not wanting family to be aware about their use of drugs, own specific methods of coping with their "drug problem" etc. However, the reasons are more speculative than being evidence-based as our study design was not geared to assess this aspect specifically.

Using Horney's construct, it was seen that the most commonly used (3/3 i.e. 100%) coping strategies were from the 'away' and 'against' domains. On the other hand, 2/3rd i.e. 66% of the least commonly used coping strategies were also from the 'away' domain. This is in keeping with the overall responses obtained (without using this construct). It indicates that the individuals tend not to engage actively with family members in terms of managing effectively their dependence on substances.

Family: It was seen that all the listed items evoked responses ranging from 100% to 22.97% indicating face validity of the TCQSD. Hence, the family members appeared to be using a wide spectrum of coping strategies. The family members responses' indicated that the most commonly applied coping strategies were centred around trying to make the patient/individual understand (e.g. increase awareness about drugs), being cooperative and supportive (e.g. taking him/her to psychiatrist), and restrictive (e.g. keeping constant eye on patient). On the other hand, aggressive (e.g. beat him/her) and alienating (e.g. send him to relative's place) coping strategies were least commonly employed.

Using Horney's construct, it was seen that 4/5 i.e. 80% of the most commonly used coping strategies were from the 'towards' domain. On the other hand, 4/5 i.e. 80% of the least commonly used coping strategies were from the 'against' domain. This indicates that the family members were being more accepting and supportive of the patient rather than being rejecting or alienating towards him/her.

However, elicitation of responses on all items and common use of coping strategies from all three domains (> 50% responding 'yes' for nearly 80% of the items) probably indicates that the family members do not appear to have full clarity on how to cope with the individual (and associated problem of substance dependence). They seem to be employing all types of coping strategies in the hope of finding an effective management option. This observation is relevant for the following reasons: [1] Management packages to help families manage patients with

substance dependence need to be developed. These should incorporate psychoeducation, effective stress management, and appropriate use of coping strategies. The use of TCQSD can be helpful as an assessment tool in providing a framework of delivering tailor-made, focussed management package by mental health providers. [2] In India (as compared to the West where the mental health services are the main caregivers), the family is the main caregiver and are the locus of control for managing patients in the community. Hence, the need to understand and support them better is necessary. [3] Due to the changing family structure and related dynamics (Avasthi, 2010), there is an increased burden on the family, and they need to be supported through a pro-active approach of guidance and support (Avasthi, 2010) in order to maximize their efforts.

It may be pertinent to clarify here that, as per the study design, the family member who responded were from two differing groups i.e. having a member in family who was using drugs/alcohol, and those who did not have any family member abusing any substance. Hence, the responses so obtained were a mixture of strategies employed or that they felt would be best suited to apply in order to effectively manage the affected family member. This is an important aspect to keep in perspective while developing the targeted interventions for family members and patients alike.

There is minimal literature that can be compared with our study. However, Orford et al (2001) have evaluated caregivers in the UK (individualistic society) and Mexico (collectivist society like India) and reported that tolerant-inactive coping was not used frequently in Mexico and withdrawal coping was seen more in UK. They recently reported effective use of intervention package comprising of self-help manuals at primary care level (Copello et al, 2009). Suresh Kumar & Thomas (2007) also reported use of targeted family intervention therapy in patients with alcohol dependence.

Community: A similar pattern was seen in the responses by community members, as was elicited with family members i.e. all the listed items evoked responses ranging from 69.31% to 4.54% indicating face validity of the TCQSD. Although the frequency of use of the various coping strategies was much lower (with nearly 75% being used in a frequency of <50%), it does not necessarily reflect less involvement of the community members. A closer look at the 13 items reveals that they appeared to be showing tolerance and being non-punitive (e.g. not to lock patient in house-item 9; not to beat patient-item 2, not to lock in police station-item

10) and adopting therapeutic strategies (e.g. not to provide him with drugs- item 4, not to consider drugs as normal and pay no attention-item 12).

Using Horney's construct, it was seen that 100% of the most commonly used coping strategies were from the 'towards' domain. On the other hand, 100% of the least commonly used coping strategies were combined from the 'against' and 'away' domains. This indicates that the community members were also showing a tendency to be more accepting and supportive of the patient rather than being rejecting or alienating towards him/her. In an interdependent and collectivist society like India, the local community tends to function as an extended arm of the family, especially during 'crises situations'.

Our findings indicate that we should focus equally on involving the local community in the treatment of individuals of substance dependence at a community level. The intervention packages should accordingly incorporate the local community resources too.

Before discussing the limitations and strengths of this exploratory study, it is important to elucidate the reason behind applying Horney's psychodynamic categorisation of coping 'domains'. Horney had placed emphasis on interrelationships between individuals, provided a cultural focus and developed the 'neurotic needs' model as a solution for problems of disturbed human relationships (Horney, 1942). The TCQSD is primarily focussed on coping strategies of family and community members arising out of them having to deal with impact on their relationships with patients with substance dependence. Hence we felt that it was theoretically justifiable to extrapolate the 'psychodynamic' concept to an overt emotional-behavioural construct of coping.

Limitations

This being an exploratory study, limitations would therefore be expected to be an inherent component. Hence, we would like to highlight the key limitations.

- [1] The TCQSD has not undergone rigorous psychometric testing and is still under further development and analysis. Also, Horney's psychodynamic construct has been directly extrapolated to behavioural strategies assuming a one-one relationship; this needs to be further evaluated.
- [2] The study was carried out using a cross-sectional design using an exploratory model with convenience sampling.

- [3] All family members included in the study were not necessarily having a family member who was abusing/dependent on substances.
- [4] Further correlates of coping methods employed using relevant socio-clinical factors (e.g. urban-rural locality, nuclear-joint family type etc.) could not be carried out. This would have helped in the psychometric validation of the TCQSD too.

CONCLUSIONS

This study was exploratory in nature with the objectives of developing a questionnaire to elicit coping strategies employed by family and community members in dealing with individuals who are dependent on substances. It was seen that the family members try to cope by making attempts to work along with, rather than against, the individual. Similar findings were obtained for the community i.e. the extended, close-knit component of the family.

Our preliminary findings suggest that although individuals with substance dependence cope by using their own preferred mechanisms, the families and community are supportive and accepting rather than rejecting, antagonistic and critical. In our view this provides mental health (and de-addiction) services with the opportunity of actively involving the families and local community in providing focussed family and/or community interventions to manage substance dependence. Pragmatic yet comprehensive psychoeducation-cum-intervention management packages can be developed and delivered based upon the assessment using structured formats like the TCQSD. Understandably, these will need to be subject to RCT design-based studies to assess for suitability and efficacy.

We have currently started work on further projects aimed at validating and consolidating the results obtained from this exploratory study; additionally comparing the coping methods of the family member of a substance dependent patient and family member who has not had any member who was abusing (or dependent) on substances. We also plan to evaluate the reasons underlying the patient's behaviour of non-acceptance of the support provided by the family and the local community.

ACKNOWLEDGEMENTS

We gratefully acknowledge the input and support of Dr Mamta (Ex-Senior Resident), Dr Abhijit Rozatkar (Senior Resident), Mr Jasvir Singh (Medical Social Worker), Mrs Chanderbala (Medical Social Worker), Dr Priti Arun (Professor), Dr Rachna Bhargava (Associate Professor), Dr AK Sidana (Assistant Professor) and Dr Paramleen Kaur (Assistant Professor) during various stages of this study.

REFERENCES

- Arun, P., Chavan, B.S. Kaur, H. (2004) A study of reasons for not seeking treatment for substance abuse in community. *Indian Journal of Psychiatry*, 46, 256-260.
- Avasthi, A. (2010) Preserve and strengthen family to promote mental health. *Indian Journal of Psychiatry*, 52, 113-126.
- Chavan, B.S. & Arun, P. (1999) Treatment of alcohol and drug abuse in camp settings. *Indian Journal of Psychiatry*, 41, 140-144.
- Chavan, B.S. & Gupta, N. (2004) Camp Approach: A community-based treatment for substance dependence. *American Journal on Addictions*, 13, 324-325.
- Chavan, B.S., Arun, P., Bhargava, R. et al (2007) Prevalence of alcohol and drug dependence in rural and slum population of Chandigarh. *Indian Journal of Psychiatry*, 49; 44-48.
- Copello, A., Templeton, L., Orford, J. et al (2009) The relative efficacy of two levels of a primary care intervention for family members affected by the addiction problem of a close relative: a randomised trial. *Addiction*, 104, 49-58.
- Horney, K. (1942) *Self-Analysis*. New York: Norton.
- Horney, K. (1945) *Our Inner Conflicts*. New York: Norton.
- Kiran, C.N. (2004) Burden and coping in caregivers of men with alcohol and opioid dependence. Unpublished Thesis, submitted to PGIMER, Chandigarh.
- Orford, J. (1988) The coping perspective, In: Velleman, R., Copello, A. & Maslin, J. (Eds) *Living with drink: Women who live with problem drinkers*, pp.128-149, London: Longman.
- Orford, J., Natera, G., Davies, J. et al (1998) Stresses and strains for family members living with drinking or drug problems in England and Mexico. *Salud Mental (Mexico)*, 21, 1-13.
- Orford, J., Natera, G., Velleman, R., et al (2001) Ways of coping and the health of relatives facing drug and alcohol problems in Mexico and England. *Addiction*, 96, 761-774.
- Sethi, B.B. (1989) Family as a potent therapeutic force. *Indian Journal of Psychiatry*, 31, 22-30.
- Suresh Kumar, P.N. & Thomas, B. (2007) Family intervention therapy in alcohol dependence syndrome: One-year follow-up study. *Indian Journal of Psychiatry*, 49, 200-204.

1. **Dr. B.S. Chavan**, Professor of Psychiatry, (Corresponding Author), Department of Psychiatry, Government Medical College & Hospital, Sector 32, Chandigarh-160032, E-mail: psygmch@hotmail.com
2. **Dr. Nitin Gupta**, Consultant Psychiatrist, Margaret Stanhope Centre, Belvedere Road, Burton upon Trent, Staffordshire, DE13 0RB, United Kingdom
3. **Dr. Tanuja Kaushal**, Research Scientist, Department of Psychiatry, Government Medical College & Hospital, Sector 32, Chandigarh-160032, India

Research Article...

PATTERN OF DISABILITY AND UTILIZATION OF DISABILITY CERTIFICATE

Jaspreet Kaur¹, Bir Singh Chavan², Priti Arun³, Chandrabala⁴, Rupinder Kaur⁵

ABSTRACT

Introduction: Disability associated with mental illness is a major contributor to the global burden of disease. Psychiatric disability compensation represents a basic act of societal justice, that is, to help out those who are too sick to work. The aim of the current study was to study the feasibility of Indian Disability and Evaluation Scale (IDEAS) in disability assessment of mental disorders. **Method:** Psychiatric disability was calculated using IDEAS, modified version. IDEAS consists of four domains, namely, self care, interpersonal activities, communication and understanding, and work. 100 patients who have been issued certificate for mental disability based on IDEAS, modified version, were included in the study. Percentages of socio demographic data and clinical variables were calculated. **Results:** It was found that patients were mostly males, educated up to matric, were single and unemployed. Informants were predominantly parents; who came from low economic status, belonged to nuclear families, staying in urban locality and were residents of Chandigarh. The most common diagnosis was schizophrenia. Most of them had duration of illness > 10 years. Most affected area was the work domain. Predominantly, patients had moderate level of disability and were issued disability certificate of permanent validity. Most common reason for availing the disability certificate was to avail pension benefits. Most common reasons reported by the patients/guardians for not availing benefits were long /cumbersome government procedures. **Conclusions:** IDEAS is an efficient instrument for issuing disability certificate. The procedure for availing the benefits can be made simpler.

Key words: Disability certificate, IDEAS, utility, benefits

INTRODUCTION

The International Classification of Functioning, Disability and Health (ICF) (WHO, 2001) classify 'disability' as an umbrella term for any or all the components: impairment, activity limitation and participation restriction, as influenced by environmental factors. The ICF conceptual framework is based on the social model of 'disability'. It defines disability in three parts; 1) the particular body function or structure that has been lost or is functioning abnormally, 2) the activities and/ or participation in daily living restricted or limited by 1 and 3) the level of severity of the limitation. In this model, 'disability' is a condition that is constructed through interaction between the individual and the environment. Thus, the ICF requires that the individuals with physical or mental impairments be considered in terms of how such impairments limit their ability to function, whether in education, home, community or workplace. WHO (2001) defines disability as any restriction or lack of functioning resulting from an impairment of ability to perform an activity in the manner or within the range considered normal for a human being. In India, the Persons with Disabilities Act (1995), defines mental illness as 'disorder of the mind that results in partial or complete disturbance in the person's thinking, feeling and behaviour which may also result in recurrent or persistent

inability or reduced ability to carry out activities of daily living, self care, education, employment and participation in social life'. According to this act, a person is considered disabled if he is suffering from 40% or more of disability certified by a medical board.

It is a well accepted fact that the mentally ill constitute a sizeable chunk of the disabled population. WHO estimates that 10% of the world's population has some form of mental disability and 1% suffers from severe incapacitating mental disorders (WHO, 1989). Meta-analysis of community based surveys conducted during the past two decades in India showed that the total prevalence of psychiatric disorder was around 5.8% (Reddy & Chandrashekar, 1998). In contrast recent National Sample Survey Organization report revealed prevalence as little as 0.2% (National Sample Survey Organization, 2003) .

Disability associated with mental illness is a major contributor to the global burden of disease. It has been seen that in psychiatric patients, residual disability and poor quality of life continues even after completion of symptom linked treatment. There is amelioration of symptoms with pharmacotherapy, but deficits in social and occupational functioning persist for a longer time. As per the National Sample Survey Organization (NSSO) 1991

statistics (Singh & Nizamie, 2004), 1.9% of India's population is disabled in one way or the other. Study of disability associated with mental disorders therefore becomes as a matter of prime importance.

Psychiatric disability determination is a complicated task. Psychiatric disability compensation represents a basic act of societal justice, that is, to help out those who are too sick to work. Psychiatric disability compensation allows people with serious mental illness to live in society; to meet their financial obligations; and to have basic necessities of life, such as food, housing and medical care. In India, the development of the Indian Disability Evaluation and Assessment Scale (IDEAS), by Indian Psychiatric Society (2001) (Ministry of Social Justice and Empowerment, 2001), signified a major milestone in the care and rehabilitation of the psychiatric patients. In 2002, Government of India approved IDEAS (Ministry of Social Justice and Empowerment, 2002) with some modifications and a gazette notification for the same was also issued.

The present study aimed: 1) to evaluate socio demographic and clinical variables of patients who have been issued psychiatric disability certificate. 2) to compare the degree of deficits in different areas of life, and 3) to assess the utility of the disability certificate after its issuance.

MATERIAL AND METHOD

Department of Health and Family Welfare, Union Territory Chandigarh, constituted Disability Board for mentally ill patients in 2002, in Department of Psychiatry, Government Medical College and Hospital (GMCH), Chandigarh. Disability was assessed for the purpose of certification as per recent government of India guidelines. The Disability Board consisted of three board members i.e., two consultant psychiatrists and one clinical psychologist. Patients were jointly evaluated by the team twice a month on a performa which included socio-demographic and clinical variables. Disability was calculated by using IDEAS, modified version, the scale which was amended by Government of India (Published as a Gazette Notification, 2002). IDEAS consists of four domains, namely, self care, interpersonal activities, communication and understanding, and work. The degree of deficit in these areas was rated on a range of 0-4, which gave the total score. Duration of illness was also taken into account, which was measured on a score of 1-4. Global score was calculated with the sum of both i.e. (total score of deficit in four areas plus score of duration of illness). As per the global score, the patient was ascribed to various disability groups. A patient having a global disability score of 0=0% disability i.e. No disability, a global disability score of 1-6=< 40% disability i.e. mild disability, a global disability score of 7-13=40%-70% disability i.e. moderate disability, a

global disability score of 14-19=71%-99% disability i.e. severe disability and a global disability score of 20=100% disability i.e. profound disability. Validity of the certificate was for five years or permanent which was decided by the Disability Board as given in gazette notification, by Government of India. 100 patients who were issued certificate for mental disability based on IDEAS, modified version, are included in the study. As per the modified version of IDEAS we can give disability certificate of any psychiatric illness, but in our study, the patients who could be contacted for the study belonged to only four diagnostic categories including schizophrenia, BPAD, OCD and dementia. Descriptive statistics was used to analyze data.

RESULTS

Table 1: Socio Demographic Profile (N=100)

S. No.	Variables	% of Patients
1.	Age in years (range 18-84) Mean(S.D)	39.69(12.86)
2.	Sex	
	Male	79
	Female	21
3.	Education	
	Illiterate	9
	Upto matric	51
	Inter/diploma	17
	Graduate and higher	23
4.	Marital status	
	Single	65
	Married	28
	Others	7
5.	Occupation	
	Employed	22
	Unemployed/Idle	66
	Student, Retired, Housewife	12
6.	Informant	
	Parents	49
	Siblings	23
	Spouse	14
	Others	14
7.	Economic Status	
	0-3500	48
	3501-7000	19
	7000 & above	33
8.	Family type	
	Nuclear	51
	Joint	46
	Extended	3
9.	Locality	
	Urban	82
	Rural	18
10.	Residence	
	Chandigarh	45
	Punjab	30
	Haryana	19
	Others	6

Table 1 shows socio demographic profile of patients who were assessed on IDEAS. Patients were mostly males (79%), with a mean age of 39 .69 years (range 18-84). Most of the patients had received education up to matric (51%), were single (65%) and unemployed (66%). Informants of the patients were predominantly parents (49%) and they came from low economic status of 0-3500 (48%). Most of the patients belonged to nuclear families (51%), staying in urban locality (82%) and residents of Chandigarh (45%).

In the clinical profile of patients with psychiatric disability the most common diagnosis was schizophrenia (70%) and predominantly, patients were referred from government hospitals (88%). Most of them were taking treatment from GMCH (84%). Maximum number of patients had a duration of illness > 10 years (66%). Duration of illness amongst different psychiatric disorders was > 10 years in patients with schizophrenia, BPAD, and OCD. Patients with dementia had duration of illness of 2-5 years (Table 2).

Table 2: Duration of Illness Amongst Different Psychiatric Disorders (N=100)

Duration of Illness	Schizophrenia (N=70)	BPAD (N=17)	OCD (N=2)	Dementia (N=11)	Total (N=100)
2-5 Years	9	3	0	6	18
6-10 Years	8	4	0	4	16
> 10 Years	53	10	2	1	66

The disability scores on IDEAS of psychiatric patients (Table 3) showed highest score in the work domain (mean = 2.71). Disability scores on IDEAS based on psychiatric illness were highest in the work domain for all the four disorders, namely: schizophrenia (mean score=2.78), BPAD (mean score=2.05), OCD (mean score = 3), and dementia (mean score=3.18). Overall, patients with dementia scored highest on all the disability domains i.e. self care (mean score=1.63), interpersonal activities (mean scores=2.18), communication and understanding (mean score= 2.18), and work (mean score= 3.18). Predominantly, 71 % of the patients had moderate level of disability. Most of the patients were issued disability certificate of permanent validity (60%). Patients were asked about reasons for availing the disability certificate (TABLE 4). The most common reason for availing the disability certificate was to avail pension benefits (34%). Others said that they were referred by their doctor (19%), to avail traveling concessions (16%), income tax rebate (10%), family pension (9%) and to get employment (9%).

Table 3: Disability Scores on IDEAS Based on Psychiatric Illness (N=100)

Disability Domains	Mean (S.D.)				
	Schizophrenia (N=70)	BPAD (N=17)	OCD (N=2)	Dementia (N=11)	Total Patients (N=100)
Self care (Range 0-4)	1.60(0.94)	1(0.71)	0.5(0.70)	1.63(1.36)	1.48(0.98)
Interpersonal activities (Range 0-4)	1.98(0.81)	1.52(0.62)	1.5(0.70)	2.18(1.16)	1.92(0.84)
Communication and understanding (Range 0-4)	1.65(0.79)	1.11(0.49)	0(0)	2.18(1.07)	1.59(0.85)
Work (Range 0-4)	2.78(1.12)	2.05(1.02)	3(1.41)	3.18(1.25)	2.71(1.15)
Total score (Range 0-16)	7.97(2.95)	5.70(2.33)	5(2.82)	9.09(4.22)	7.65(3.15)
Global score (Range 0-20)	11.52(3.00)	9.05(1.74)	9(2.82)	11.72(4.24)	11.08(3.10)

Patients who were issued the disability certificate (N=100) were later assessed through home visits and telephonic contact, in order to know the utility of disability certificate. Out of 100 patients, 12 patients could not be contacted, due to wrong/changed addresses/ telephone numbers. 36% patients availed disability benefits, whereas 52% patients were not availing any benefits. Most common reasons reported by the patients/guardians for not availing benefits were long /cumbersome government procedures (26%), did not apply for certificate for specific benefits due to lack of time (8%) and 8 % had applied for issuance of benefits. Other reasons for not availing disability benefits were: family members did not know government procedures to avail benefits (3%), patient did not cooperate with the family regarding procedures (2%), and family problems (2%).

DISCUSSION

Psychiatric disorders are one of the most common and prevalent illnesses that widely affect people suffering from them. Mental disorders account for nearly 31 percent of world's disability. Psychiatric illnesses including schizophrenia, bipolar disorder, dementia, obsessive compulsive disorder etc lead to major disability in patients. These disorders have negative impact on areas like academic, social, family and occupational functioning. In order to provide comprehensive rehabilitation services, it is important to assess them in various areas. Though, estimation of disability is a complicated task;

programs for the protection of disabled are a necessary part of a civilized society (Fontana & Rosenheck, 1998) .

In our study, sample was predominantly male, single, had studied up to matric, unemployed and came from a low economic status. Most of the patients belonged to urban, nuclear families and were residents of Chandigarh. Comparing the results of our study and a field study in India, some similarities were found. In both the studies the sample was predominantly males. The mean age (39.69 years) was comparable. Most of the patients in our study had duration of illness more than 10 years, whereas, in the other study it was 8.61 years. Most of the patients in both the studies were schizophrenics and maximum deficit was in work domain. In a study by Ganesh and Colleagues (Ganesh et al, 2008), in which IDEAS was used, number of disabled females were more and prevalence of disability was higher among the group of persons with low socio economic status. In this study around one third of the disabled were illiterate, and those with education level above 10th standard had very low prevalence. Some other studies on the demographics of disability petitioners (Heiman & Shanfield, 1978; Okpaku, 1985; Perl & Kahn, 1983; Lloyd & Tsuang, 1985) found several characteristics in common: limited education and job skills, repeated job failure, unmarried status, history of unstable family relationships and abuse, poverty or economic security and migrant status. Although, in our study there were persons, who were unmarried, less educated, unemployed, from lower socio economic status, it is not possible to document the cause and effect consequences of mental disorders.

The most common diagnosis in our study was schizophrenia. Most of the patients were ill for more than 10 years. In a study by Mohan et al (2005) most of the patients with schizophrenia having duration of illness between 2-5 years had moderate to severe disability. The authors inferred that disability potential of illness like schizophrenia unravel itself to its full by two year of active illness. The resulting disability, however, remained stable thereafter irrespective of the duration of illness. Marneros et al (1990) reported that schizophrenia caused persistent alterations in social life like social and occupational drift, premature retirement, and in ability to achieve the expected social development.

Our study showed highest score in the work domain i.e. majority of the patients were having deficits related to work. Published research data suggest that, by and large, the

disability determination systems function in a fair and just manner. A study by Massel et al (1990) suggested that through elaborate testing batteries, most social disability awardees are indeed unable to work. Likewise, a study by Rosenheck and colleagues (1995) suggested that most people who are turned down for disability benefits are no more likely to return to work than those who receive benefits (presumably because they are too sick to do so). Also, the lack of disability benefits was shown to correlate with a greater incidence of homelessness in the mentally ill (Rosenheck & Seibyl, 1998).

Table 4: Reasons for Availing Disability Certificate (N=100)

S. No.	Reasons For Availing Disability Benefits	
1.	Pension from social welfare department	34
2.	Referred by doctor	19
3.	Travelling concessions	16
4.	Tax benefits	10
5.	Family pension from office	9
6.	To get employed	9
7.	Applying for plots/housing board scheme	6
8.	Apply for I Card	4
9.	To avoid police harassment	3
10.	To take loan for small business	3
11.	To work on less pressured post	2
12.	Court case(accidental case etc)	2
13.	Legal guardianship, transfer of property by parents, govt. accommodation of choice, voluntary retirement, promotion pending, transfer of father's job	6

Most of the patients in our study were issued certificates with validity being permanent and majority of the patients had moderate level of disability. In a study by Ganesh et al (2008) majority of the patients had mild disability. In another study (Loyd & Tsuang, 1985) patients with schizophrenia and OCD were assessed using IDEAS, of the 30 patients with schizophrenia, 21 had moderate disability and 8 had severe disability, while 16 OCD patients had mild disability and only 9 had moderate disability (Table 4).

The most common reasons for availing the disability certificate was to avail pension benefits. Some patients/guardians said they were referred by doctors as they were ignorant of disability benefits. Travelling concessions, income

tax rebate, family pension and to get employment were some other reasons for which patients/ guardians wanted to avail benefits. In our study, some patients/guardians reported no difficulty to avail disability benefits, whereas, some difficulties were reported by other patients/ guardians. Certain difficulties faced by the users were long/cumbersome government procedures. With all these difficulties in mind, agencies involved in delivery of social benefits need to be made more flexible and receptive.

Psychiatric illness causes greater disability in patients. It causes deficits in all the areas of daily functioning, leading to greater disability, and thus increasing the burden on the family. Social security benefits not only help the person to retain his/her employment, but also ensure his social status within the family as the family does not perceive him/her as a burden. Welfare schemes/ social security measures, for the disabled also help in keeping a regular contact with these people and it is possible to minimize further deficits.

Psychiatric disability compensation in some form or the other helps those who are too sick to work. It involves a primary gain (avoiding a difficult job situation), secondary gain (being taken care of), and a tertiary gain (financial reward). Disability assessment helps to understand, plan and expect accordingly and appropriately as far as management and rehabilitation is concerned. As majority of the patients in the study showed inability to work, rehabilitation with long term planning for psychiatric patients is needed.

IDEAS has contributed to assess disability in patients with psychiatric illness, on different domains of patients life. In order to make IDEAS a more effective tool for assessment the range of disability including: 0=0% disability, 1-6=< 10% disability, 7-13=40%-70% disability, 14-19=71%-99% disability and 20=100% appears to be very wide. For making the validity and reliability of IDEAS better, the range of scores need to be narrowed down so as to reach to a particular disability score as is being done for other disabilities.

Social security measures always have a risk of exploitation which needs to be identified and checked by authorities and benefit providers. Histories presented may not be corroborated, and patients may exaggerate or falsify symptoms. Apart from this, some practitioners may harbor a professional bias against patients with certain diagnosis like dissociative disorders; chronic fatigue syndrome etc. Interpersonal factors can also render disability assessment difficult. Adverse interactions

between clinicians and petitioners may complicate matters e.g., if the patient presents in a hostile or entitled manner, the treatment alliance may be disrupted when the physician disagrees with the patient's claim, or needs to question the patient's honesty. Conversely, the psychiatrists' role as patient advocate may decrease objectively, as the psychiatrist may feel pressured to give the patient what he/she wants. This dilemma is especially common in long term treatment relationships, in which the patient may expect that "of course my doctor will do this for me". Keeping the above consequences in mind, psychiatrists need to be aware of their personal values and not allow them to cloud their judgment.

REFERENCES

- Fontana, A. & Rosenheck, R. (1998) Effects of compensation seeking on treatment outcomes among veterans with post traumatic stress disorder. *Journal of Nervous and Mental Disorder*, 186, 223-230.
- Ganesh, K., Acharya, D., Bhandary, P.V., et al (2008) Prevalence and pattern of mental disability using Indian Disability Evaluation scale in a rural community of Karnataka. *Indian Journal of Psychiatry*, 50, 21-23.
- Heiman, E. & Shanfield, S. (1978) Psychiatric disability assessment: Clarification of problems. *Comprehensive Psychiatry*, 19, 449-454.
- Loyd, D. & Tsuang, M. (1985) Disability and welfare-who wants it ? *Journal of Clinical Psychiatry*, 46, 273-275.
- Marneros, A., Deister, A., Rohde, A. (1990) Psychopathology and social status of patients with effective, schizophrenic and schizoaffective disorders after long term course. *Acta Psychiatrica Scandinavica*, 82, 352-358.
- Massel, H., Liberman, R., Mintz, J., et al (1990) Evaluating the capacity to work of the mentally ill. *Psychiatry*, 53, 31-43.
- Ministry of Social Justice and Empowerment. Guidelines for evaluation and assessment of various conditions including mental retardation and procedure for certification. *Gazette Notification*, New Delhi, June, 2001.
- Ministry of Social Justice and Empowerment. Guidelines for evaluation and assessment of mental illness and procedure for certification. *Gazette Notification*, New Delhi, 27th February, 2002.
- Mohan, I., Tandon, R., Kalra, H., et al (2005) Disability assessment in mental illnesses using Indian Disability Evaluation Assessment Scale (IDEAS). *Indian Journal of Medical Research*, 121, 769-783.

-
- National Sample Survey Organization. A report on disabled persons. Department of Statistics, Government of India: New Delhi, 2003.
- Okpaku, S. (1985) A profile of clients referred for psychiatric evaluation for social security disability income and supplemental security income: Implications for Psychiatry. *American Journal of Psychiatry*, 142, 1037-1043.
- Perl, J. & Kahn, M. (1983) The effects of compensation on psychiatric disability. *Social Science and Medicine*, 17, 439-443.
- Reddy, M.V. & Chandrashekhar, C.R. (1998) Prevalence of mental and behavioural disorders in India: A meta-analysis. *Indian Journal of Psychiatry*, 40, 149-157.
- Rosenheck, R., Frisman, L., Sindelar, J. (1995) Disability compensation and work among veterans with psychiatric and non psychiatric impairments. *Psychiatric Services*, 46, 359-365.
- Rosenheck, R. & Seibyl, C.L. (1998) Homelessness: Health Service use and related costs. *Medical Care*, 36, 1256-1264.
- Singh, A. & Nizamie, S.H. (2005) Disability: The concept and related Indian legislations. *Mental Health Reviews: 2004*. Available from URL:http://www.psyplexus.com/mhr/disability_india.html. Accessed on 13 September 2005.
- The persons with disabilities (Equal Opportunities Protection and Rights and Full Participation) Act, 1995.
- World Health Organization (2001) International classification of functioning, Disability and Health. WHO, Geneva.
- World Health Organization (1989) Training in community for people with disabilities. WHO:Geneva.
-
1. **Dr. Jaspreet Kaur**, Ph.D (Clinical Psychology), (Crossponding Author) Psychologist, Department of Psychiatry, Govt. Medical College & Hospital, Sector – 32, Chandigarh, E-mail: Jaspreetgmch@yahoo.com
 2. **Dr. B.S. Chavan**, Professor of Psychiatry, (Corresponding Author), Department of Psychiatry, Government Medical College & Hospital, Sector 32, Chandigarh-160032, E-mail: psymch@hotmail.com
 3. **Dr. Priti Arun**, M.D. (Psychiatry), Professor, Department of Psychiatry, Government Medical College & Hospital, Sector 32, Chandigarh-160032.
 4. **Ms Chandrabala**, M.A. Social Work, Social Worker, Department of Psychiatry, Government Medical College & Hospital, Sector 32, Chandigarh-160032.
 5. **Ms Rupinder Kaur**, M.A. Sociology, Department of Psychiatry, Government Medical College & Hospital, Sector 32, Chandigarh-160032.
-

Research Article...

AGGRESSION, SUICIDAL TENDENCIES AND HIGH RISK SEXUAL BEHAVIOUR AMONG PERSONS WITH SUBSTANCE DEPENDENCE

Upasana Baruah¹, R Dhanasekara Pandian²

ABSTRACT

Background: The study was aimed at understanding level of aggression, suicidal tendencies and high risk sexual behaviour among persons with substance dependence and the interrelation between these variables, and to assess their relationship with the socio-demographic characteristics of the persons with substance dependence. **Method:** 60 consecutive subjects (30 respondents with diagnosis of alcohol dependence and 30 respondents with 2 or more (multiple) substance dependence) who met study criteria were recruited for the study between September 2009 to November 2009 from the psychiatric services of the Centre for Addiction Medicine, NIMHANS, Bangalore, India. Data was collected with the help of structured interviews. **Results:** The results revealed that alcohol and tobacco were the initial substance of abuse for majority of the study population. Among the 18-25 years age group, total aggression (M=105.38, SD=17.13), suicidal ideations (M=10.61, SD=9.48) and high risk sexual behaviour (M=2.0769, SD=1.65638) was found to be clinically significant and were much higher as compared to the other age groups. Significant differences were found on aggression and various domains of aggression, suicidal ideation and high risk sexual behaviour with respect to various socio-demographic variables. **Conclusions:** In substance abuse treatment, there is a high need to address the associated behaviours like aggression, suicidal ideation and risky sexual behaviour. These behaviours in turn are correlated to each other, so interventions which are mediated encompassing these relationships would be more effective.

Key words: Substance dependence, aggression, suicidal tendencies, high risk sexual behaviour

INTRODUCTION

Substance abuse and dependence are a major problem to individual, family and society at large. Estimates of the total overall costs of substance abuse including losses in productivity are staggering. However, they do not fully describe the breadth of deleterious public health and safety implications, which include family disintegration, loss of employment, failure in school, domestic violence, child abuse, and other crimes. There appears to be an intricate relationship between aggression, suicidal tendencies and high risk sexual behaviour among persons with substance dependence.

According to the World Drug Report 2010, the proportion of drug users in the world population aged 15 to 64 has remained basically stable for the fourth straight year. It remains near the top end of the 4.7% to 5.0% range it has stabilized at since the late 1990s. Approximately 208 million people or 4.9% of the world's population aged 15 to 64 have used drugs at least once in the last 12 months. Problem drug use remains at about 0.6%

of the global population aged 15 to 64 (UNDOC, 2010). National household survey conducted in India for estimating the extent of substance dependence for alcohol and opiates stated that the current prevalence of alcohol was 21.4%, cannabis 3.0%, Heroin 0.2%, opium 0.4% and other opiates 0.1% (Srivastava et al, 2002). Another important finding of this survey was that in the range of 17-29% of current users of various substances were dependent users.

Considerable evidence points to a direct link between substance use and violence (Lennings et al, 2003). The available empirical and theoretical literature on the relationship between marijuana and violence, including past theoretical models, the link between marijuana use and interpersonal violence (including intimate partner violence), and the relationship between marijuana withdrawal and violence provide support for an association between marijuana use/withdrawal and various types of violence (Moore & Stuart, 2005). Compared to the normal sample chronic substance use is associated with higher

scores on certain factors of trait aggression, including hostility and anger, in females than in males. Aggression in substance dependent females is more provokable by chronic use of alcohol and drugs than in males (Bácskai et al, 2011).

Among adolescents, alcohol abuse per se is known to associate with aggressive and impulsive behaviour, dysphoric mood and suicide risk (Milgram, 1993; Bukstein et al, 1993). Abuse of or dependence on alcohol and other psychoactive substances among adolescents is often associated with multiple psychosocial problems, psychiatric co-morbidity, suicidal ideation, suicide attempts (Berman & Schwartz, 1990; Deykin & Buka 1994; Beautrais et al, 1996), and completed suicide (Brent et al, 1988; Allebeck & Allgulander, 1990; Shaffer et al, 1996).

Longitudinal studies of adolescent psychiatric patients and suicide attempters have found alcohol and drug abuse to be one of the major risk factors for suicide (Östman, 1991; Hawton et al, 1993). Substance use disorders along with other psychopathology, socio-demographic disadvantage and adverse childhood experiences are also reportedly associated with risk of serious suicide attempts among adolescents (Beautrais et al, 1996). Alcohol and drug use predict subsequent suicide attempts after controlling for socio-demographics and co-morbid mental disorders (Borges et al, 2000). Cannabis use was also a significant independent predictor of suicidal behaviours after adjustment for depressive and anxious symptoms (Chabrol et al, 2008).

Colfax et al (2003) concluded that substance use during sex is independently associated with increased sexual risk, after adjusting for both participant and partner characteristics. Even after adjusting for the effects of other variables, at-risk drinkers were more likely to report multiple sex partners and engaging in unprotected sex with casual sex partners (Arasteh et al, 2008). Among HIV-positive injection drug users at-risk drinking is associated with higher rates of injection and sexual risk behaviours and that alcohol intoxication is related to unprotected sex (Arasteh & Des Jarlais, 2009).

The reviews indicated that there is almost a two-way relationship between aggression and substance abuse. Not only may substance abuse promote aggressiveness, but victimization may lead to substance abuse or dependence. Similarly, substance abuse is linked with suicidal tendencies and high risk sexual behaviour. The relationship between three behaviours and substance abuse has been highlighted in only a single

study which states dating violence is extremely prevalent among adolescent girls. Those who report a history of experiencing dating violence are more likely to exhibit other serious health risk behaviours like increased risk of substance use, unhealthy weight control behaviours, sexual risk behaviours, pregnancy and suicidal ideation (Silverman et al, 2001). However, this study illustrates that adolescent girls who are the victims of aggressive behaviour are likely to express suicidal ideation and risky sexual behaviour. It does not discuss about the association of the three behaviours in the same individual, which would have illuminated the interrelationship between them.

The association between substance use and impulsive risk taking behaviours is well established although a direct causal relationship has proven hard to demonstrate. The present study tried to explore the association between substance dependence, aggression, suicidal tendencies and high risk sexual behaviour and to identify their socio-demographic and behavioural correlates. The study tried to cover the persons with substance dependence who had come for treatment and its purpose was to add on to the knowledge base of mental health professionals working in the field of addiction.

MATERIALS AND METHOD

The study was aimed at understanding aggression, suicidal tendencies and high risk sexual behaviour among persons with substance dependence and assess their relationship with the socio-demographic characteristics. Another important objective was to understand and compare the association between these variables among persons with alcohol dependence, and persons with dependence on multiple substances.

60 consecutive subjects (30 respondents with diagnosis of alcohol dependence and 30 respondents with two or more (multiple) substance dependence) were collected from both the Out-patient Department and admitted patients of the Centre for Addiction Medicine at NIMHANS. The patients who fulfilled the inclusion and exclusion criteria during the period of study, i.e., from September 2009 to November 2009 and gave informed consent were included in the study. The study criteria included (a) persons with DSM IV diagnosis of substance dependence (Substance include alcohol and other drugs), (b) persons between the ages of 18 years to 55 years. The exclusion criteria included (a) persons with major mental disorders or physical illnesses, (b) persons who have undergone any structured psycho-social interventions previously. The data was collected with the help of structured interview schedule

which comprised of a socio-demographic data sheet developed by the researcher, Aggression questionnaire (Buss & Perry, 1992), Scale for Suicide Ideation (Beck et al 1979) and Brief HIV Screener (BHS) developed by Gerbert et al 1998.

Socio-demographic data sheet prepared by the researcher was used to obtain information regarding socio-demographic characteristics from the respondents. The tool to assess aggression was the Aggression questionnaire (Buss & Perry, 1992) which is a 29-item questionnaire with four subscales measuring anger, hostility, verbal aggression and physical aggression with internal consistency alphas between 0.72 and 0.85 for the four subscales, and 0.89 for the total score (Buss & Perry, 1992). The tools used to assess suicidal tendencies and high risk sexual behaviour were Scale for Suicide Ideation (SSI) (Beck et al, 1979) and Brief HIV Screener (BHS) (Gerbert et al, 1998) respectively. SSI consists of 19 items that evaluate three dimensions of suicide ideation: active suicidal desire, specific plans for suicide, and passive suicidal desire. It has good internal consistency ($\alpha = 0.89$), and the inter-rater reliability is 0.83 ($p < 0.001$). BHS is a 10 – item clinical research instrument with good reliability having KR-20 coefficient of 0.73 (Gerbert et al, 1998).

The data was analyzed with the help of Statistical Package for Social Sciences (SPSS, Version-10). Frequency distributions were used to describe the socio-demographic characteristics. Descriptive Statistics like mean and standard deviation were used to study the continuous variables and dependent variables. The mean difference between the groups was calculated using t-test and ANOVA. Pearson's correlation was calculated to find out the association among the different variables.

RESULTS

The results revealed that the mean age of the respondents was found to be 33.3 years ($SD=8.479$), and majority of the respondents were between 18 years to 35 years of age. The occupational status of the respondents revealed that majority (35%) were self employed, 18.3% were unemployed, 10% were government employee, 30% were private employee and very few (6.7%) were students. The distribution of sample with respect to their marital status reveal that 50% were unmarried, nearly half (46.7%) were married and an insignificant number (3.3%) were divorced. 50% of the respondents reported presence of family history while the other 50% reported absence of family history of substance use (Table 1 & 2).

Table 1: Personal profile of the respondents

Variable	Value label	N	%
Age	18-25 years	13	21.7
	26-35 years	23	38.3
	36-45 years	20	33.3
	46-55 years	4	6.7
	Total	60	100.0
Education	Illiterate	3	5.0
	Upto Middle School	4	6.7
	Upto Higher Secondary	20	33.3
	Graduation and Above	24	40.0
	Diploma & Professional Course	9	15.0
	Total	60	100.0
No. of years of education	Nil	3	5.0
	0-8 years	3	5.0
	9-15 years	24	40.0
	16-20 years	23	38.3
	21 years and above	7	11.7
	Total	60	100.0
Occupation	Unemployed	11	18.3
	Government employee	6	10.0
	Private employee	18	30.0
	Student	4	6.7
	Self employed	21	35.0
	Total	60	100.0
Marital status	Married	28	46.7
	Unmarried	30	50.0
	Divorced	2	3.3
	Total	60	100.0

Tobacco and alcohol were found to be used for the maximum duration of time ($M=12.89$, $SD=7.585$) and the mean of monthly expenditure on opioids was found to be highest among all the substances ($M=5092$, $SD=5222.62$). None of the respondents reported using cocaine and hallucinogens. This might be due to the fact that these substances are not easily procurable.

The highest aggression score that can be obtained in the Aggression Questionnaire is 145, which would signify very high aggression. Among the study population, the maximum score was found to be 135 and the mean of total aggression score was found to be 95.05 ($SD=21.255$), which compared to the highest score would indicate high aggression level among the persons with substance dependence (table 3).

Table 2: Family profile of the respondents

Variable	Value label	N	%
Monthly income of the family	Rs.0 to Rs.5000	9	15.0
	Rs.5001 to Rs.10000	9	15.0
	Rs.10001 to Rs.15000	7	11.7
	Above Rs.15001	35	58.3
	Total	60	100.0
Family history of substance use	Present	30	50.0
	Absent	30	50.0
	Total	60	100.0
Family atmosphere	Harmonious	37	61.7
	Non- harmonious	23	38.3
	Total	60	100.0
Involvement with family	Satisfactory	36	60.0
	Not satisfactory	24	40.0
	Total	60	100.0
Assigned role in family	Yes	33	55.0
	No	27	45.0
	Total	60	100.0
Communication in family	Good	18	30.0
	Average	32	53.3
	Poor	10	16.7
	Total	60	100.0
Help from family members	Yes	52	86.7
	No	8	13.3
	Total	60	100.0

Table 3: Descriptive statistics of the dependent variables

Dependent variables	N	Range	Min.	Max.	Mean	SD
Anger	60	23.00	10.00	33.00	22.68	5.89
Physical Aggression	60	31.00	13.00	44.00	28.98	7.78
Verbal Aggression	60	17.00	8.00	25.00	17.08	4.08
Hostility	60	31.00	9.00	40.00	27.23	7.89
Total Aggression	60	96.00	39.00	135.00	95.05	21.25
Suicidal Ideation	60	26.00	.00	26.00	7.70	6.42
High Risk Sexual Beh.	60	5.00	.00	5.00	.88	1.30

The mean score for suicidal ideation among the persons with substance dependence was found to be 7.70 (SD=6.42638), which means significant suicidal ideation as a score of 6 is considered as clinically significant suicidal ideation. With regards to high risk sexual behaviour, the minimum score was found to be 0 which signifies no risk, while the maximum score

for high risk sexual behaviour was found to be 5 which mean significant risk. The mean score for high risk sexual behaviour was found to be .8833 (SD=1.30308), which does not indicate a significant risk as a score of 1 is considered as clinically significant high risk (table 3).

The results reveal significant differences among different age group of respondents with respect to their suicidal ideation and high risk sexual behaviour. There were significant differences among the marital status of the respondents with respect to their physical aggression. Significant differences were found between the respondents' involvement with their family with respect to their anger, hostility, total aggression and their suicidal ideation and high risk sexual behaviour.

An important finding of the study was that anger, physical aggression, verbal aggression, hostility and total aggression were found to be higher among the respondents having multiple substance dependence when compared to respondents having alcohol dependence. The results show significant difference between the types of substance dependence of the respondents with respect to their physical aggression and total aggression.

The results show significant difference between the types of substance dependence of the respondents with respect to their suicidal ideation and high risk sexual behaviour.

Table 4: Inter Correlation of Scores of different domains of Aggression Scale, Suicidal Ideation and High Risk Sexual Behaviour (Among Persons with Dependence on Multiple Substances)

	Anger	Physical Aggression	Verbal Aggression	Hostility	Total Aggression	Suicidal Ideation	High Risk Sexual Beh.
Anger	1						
Physical Aggression	.652**	1					
Verbal Aggression	.615**	.133	1				
Hostility	.551**	.509**	.414*	1			
Total Aggression	.887**	.763**	.595**	.840**	1		
Suicidal Ideation	.471**	.252	.592**	.465**	.528**	1	
High Risk Sexual Beh.	.385*	.113	.196	-.027	.223	.216	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

No significant association was found between aggression, suicidal tendencies and high risk sexual behaviour among persons with alcohol dependence. However, when the association between the three variables was examined among persons with dependence on 2 or more substances, significant positive correlation was found to exist between suicidal ideation and anger ($r=.471$, $p<0.01$) and high risk sexual behaviour and anger ($r=.385$, $p<0.05$). Suicidal ideation also showed a significant positive correlation to verbal aggression ($r=.592$, $p<0.01$), which signifies that with increase in suicidal ideation, the verbal aggression also increases. Suicidal ideation was also seen to be positively correlated to the total aggression ($r=.528$, $p<0.01$) (table 4).

DISCUSSION

The mean age of the respondents was found to be 33.3 years ($SD=8.479$), and majority of the respondents were between 18 years to 35 years of age which indicates that the youth are the most affected population due to substance dependence and also persons belonging to this age group seek treatment more than the others. Dependence posing a serious threat to their productivity, persons belonging to this age group seek treatment more often than the other age groups and family members also bring them with more hope of their recovery as compared with older persons.

The family environment plays a role in both promoting and protecting from substance abuse and dependence. In the present study, most of the persons with substance dependence reported having a supportive familial environment. 61.7% reported having harmonious family atmosphere and 60% of the respondents had satisfactory involvement with the family and its functions, 55% of the respondents had assigned role to play in the family and 53.3% (majority) of the study sample reported that the communication in their family was average. This might be a major influence in their seeking treatment for addiction. Presence of good social support would also facilitate the process. The need for community awareness programs highlighting the services of government and non-government organizations providing help for substance related disorders is also felt.

It was found that most of the men who had a problem with other drugs also had an alcohol problem. Alcohol and tobacco were the initial substance of abuse for majority of the study population. Youth were the most affected group due to substance dependence and they posed a very important area

for preventive intervention which has been focused in other studies too.

High aggression level among persons with substance dependence would definitely support the association between substance abuse and aggression which has been studied in previous researches. Heightened aggression might be the reason for domestic violence, child abuse, and partner and non-partner violence often associated with persons with addiction. This finding suggests that, in drug-treatment settings, systematic objective screening for family violence is routinely called for. This also corroborates with earlier studies which reported that compared to days of no drug or alcohol use, the likelihood of male-to-female physical aggression was significantly higher on days of substance use, after controlling for male partners' antisocial personality disorder and couples' global relationship distress (Fals-Stewart et al, 2003; Hoaken & Stewart, 2003).

Significant suicidal ideation found among persons with substance dependence in the study calls for the need to address addiction related issues in the suicide prevention programs as well. This finding is similar to previous findings which indicated that heavy episodic drinking is a clear risk factor for suicidal behaviour among younger adolescents (Aseltine Jr. et al, 2009; Vörös et al, 2005). Though for persons with alcohol dependence, high risk sexual behaviour was not found to be clinically significant, high risk sexual behaviour is seen to be high among the persons with multiple substance dependence. High Risk Sexual Behaviour was found to be higher among 18-25 years age group and the mean difference was found to be statistically significant. This finding can be supported with the finding of a study by Senf and Price (1994) who reported that the inhibiting effect of alcohol is not a major factor in the failure of young adults to use condoms. Another study with corroborative findings is by Woods et al (1996) who stated that measures of severity of alcohol or drug problems alone were not consistently related to high-risk or protective behaviours. These major findings would help in educating the mass, especially the youth about the risks and harmful behaviours associated with substance addiction.

Though significant association was not found between suicidal ideations and high risk sexual behaviour among persons with alcohol dependence in the present study, previous studies have reported some significant findings. Hallfors et al (2004) in their study concluded that compared to youth who abstain from

risk behaviours, involvement in any drinking, smoking, and/or sexual activity was associated with significantly increased odds of depression, suicidal ideation, and suicide attempts. Thus teens engaging in risk behaviours are at increased odds for depression, suicidal ideation, and suicide attempts.

In a person with dependence on more than two substances, significant positive correlation exists between suicidal ideation and anger ($r=.471$, $p<0.01$) and high risk sexual behaviour and anger ($r=.385$, $p<0.05$). It indicates that with the increase in his suicidal ideations, his anger would increase and with the increase in his high risk sexual behaviour, his anger would also be more.

Suicidal ideation is also seen to be positively correlated to the total aggression ($r=.528$, $p<0.01$), which indicates that in a person with dependence on multiple substance, when the suicidal ideation increases, his aggression also increases.

An important finding of the study was that all the domains of aggression, the total aggression, suicidal ideation and high risk sexual behaviour were found to be higher among the respondents having multiple substance dependence when compared to respondents having alcohol dependence. Thus there is a higher need to screen persons abusing multiple substances for the harmful behaviours studied and design intervention strategies which are specifically for this population. The above findings corroborate previous studies related to the substance dependence. Shoval et al (2009) investigated the link between the use of specific types of substances and suicidal behaviour in adolescent inpatients with schizophrenia and schizoaffective disorder and found a strong association between inhalants, LSD, alcohol and MDMA with suicidal tendencies. A study by Borges et al (2000) however, concluded that the number of substances used is more important than the types of substances used in predicting suicidal behaviour.

Among persons with multiple substance dependence, significant positive correlation exists between suicidal ideation and anger and high risk sexual behaviour and anger. It indicates that in a person with dependence on multiple substances, with the increase in his suicidal ideations, his anger would increase and with the increase in his high risk sexual behaviour, his anger would also be more. Suicidal ideation is seen to be positively correlated to the total aggression, which indicates that in a person with dependence on multiple substances, when the suicidal ideation increases, his aggression also increases. This indicates that in substance abuse treatment, there is a high

need to address the associated behaviours like aggression, suicidal ideation and risky sexual behaviour. These behaviours in turn are correlated to each other, so interventions which are mediated encompassing these relationships would be more effective.

CONCLUSION

The findings of the study highlight the fact that in substance abuse treatment, there is a high need to address the associated behaviours like aggression, suicidal ideation and risky sexual behaviour. These behaviours in turn are correlated to each other, so interventions which are mediated encompassing these relationships would be more effective. Drug addiction is a preventable disease and prevention programmes that involve families, schools, communities, and the media are effective in reducing drug abuse. Although many events and cultural factors affect drug abuse trends, when youth perceive drug abuse as harmful, they reduce their drug taking. Thus a multidimensional approach, focussing on the psychosocial factors is very much useful to understand the risks and harmful behaviour associated with substance abuse, which can be the determinants of substance abuse treatment and prevention.

REFERENCES

- Allebeck, P. & Allgulander, C. (1990) Suicide among young men: Psychiatric illness, deviant behaviour and substance abuse. *Acta Psychiatrica Scandinavica*, 81, 565–570.
- American Psychiatric Association (1994) Diagnostic criteria from DSM-IV. Washington, D.C: American Psychiatric Association.
- Arasteh K., Des Jarlais, D.C., Perlis, T.E. (2008) Alcohol and HIV sexual risk behaviours among injection drug users. *Drug and Alcohol Dependence*, 95, 54-61.
- Arasteh, K. & Des Jarlais, D.C. (2009) At-Risk Drinking and Injection and Sexual Risk Behaviours of HIV-Positive Injection Drug Users Entering Drug Treatment in New York City. *AIDS Patient Care and STDS*.
- Aseltine, R.H. Jr., Schilling, E.A., James, A. et al (2009) Age variability in the association between heavy episodic drinking and adolescent suicide attempts: Findings from a large-scale, school-based screening program. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48, 262-270.
- Bácskai, E., Czobor, P., Gerevich, J. (2011) Gender differences in trait aggression in young adults with drug and alcohol dependence compared to the general population. *Progress in Neuropsychopharmacology and Biological Psychiatry*, 35, 1333-1340.
- Beck, A.T., Kovacs, M., Weissman, A. (1979) Assessment of suicidal

- intention: The Scale for Suicide Ideation. *Journal of Consulting Clinical Psychology*, 47, 343–352.
- Berman, A. L. & Schwartz, R. H. (1990) Suicide attempts among adolescent drug users. *American Journal of Diseases of Children*, 144, 310–314.
- Beautrais, A. L., Joyce, P. R., Mulder, R. T. (1996) Risk factors for serious suicide attempts among youths aged 13 through 24 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35, 1174–1182.
- Borges, G., Walters, E.E., Kessler, R.C. (2000) Associations of substance use, abuse and dependence with subsequent suicidal behaviour. *American Journal of Epidemiology*, 151, 114–119.
- Brent, D.A., Perper, J.A., Goldstein, C.E., et al (1988) Risk factors for adolescent suicide. A comparison of adolescent suicide victims with suicidal inpatients. *Archives of General Psychiatry*, 45, 581–588.
- Bukstein, O. G., Brent, D. A., Perper, J. A., et al (1993) Risk factors for completed suicide among adolescents with a lifetime history of substance abuse: A case–control study. *Acta Psychiatrica Scandinavica*, 88, 403–408.
- Buss A.H. & Perry M. (1992) The Aggression Questionnaire. *Journal of Personality & Social Psychology*, 63, 452–459.
- Chabrol, H., Chauchard, E., Girabet, J. (2008) Cannabis use and suicidal behaviours in high-school students. *Addictive Behaviours*, 33, 152–155.
- Colfax, G., Husnik, M., Vittinghoff, E., et al (2003) The EXPLORE Study team: National HIV Prevention Conference. Substance Use during Sex Is Associated with High-risk Behaviour for HIV Acquisition: An Occasion-specific Analysis. Abstract Book. National HIV Prevention Conference. *The Journal of Adolescent Health*, 15, 238–244.
- Deykin, E.Y. & Buka, S.L. (1994) Suicidal ideation and attempts among chemically dependent adolescents. *American Journal of Public Health*, 84, 634–639.
- Fals-Stewart, W., Golden, J., Schumacher, J.A. (2003) Intimate partner violence & substance use: A longitudinal day-to-day examination. *Addictive Behaviours*, 28, 1555–1574.
- Gerbert, B., Bronstone, A., McPhee, S., et al (1998) Development and testing of an HIV-risk screening instrument for use in health care settings. *American Journal of Preventive Medicine*, 15, 103–113.
- Hallfors, D.D., Waller, M.W., Ford, C.A., et al (2004) Adolescent depression and suicide risk: Association with sex and drug behaviour. *American Journal of Preventive Medicine*, 27, 224–231.
- Hawton, K., Fagg, J., Platt, S., et al (1993) Factors associated with suicide after parasuicide in young people. *British Medical Journal*, 306, 1641–1644
- Hoaken P.N.S. & Stewart, S.H. (2003) Drugs of abuse and the elicitation of human aggressive behaviour. *Addictive Behaviours*, 28, 1533–1554.
- Lenings, C.J., Copeland, J., Howard, J. (2003) Substance use patterns of young offenders and violent crime. *Aggressive Behaviour*, 29, 414–422.
- Milgram G.G. (1993) Adolescents, alcohol and aggression. *Journal of Studies on Alcohol*, Supplement-11, 53–61.
- Moore, T.M. & Stuart, G.L. (2005) A review of the literature on marijuana and interpersonal violence. *Aggression and Violent Behaviour*, 10, 171–192.
- Östman O. (1991) Child and adolescent psychiatric patients in adulthood. *Acta Psychiatrica Scandinavica*, 84, 40–45.
- Senf, J.H. & Price, C.Q. (1994) Young adults, alcohol and condom use: what is the connection? *The Journal of Adolescent Health*, 15, 238–244.
- Shaffer, D., Gould, M., Fisher, P., et al (1996) Psychiatric diagnosis in child and adolescent suicide. *Archives of General Psychiatry*, 53, 339–448.
- Shoval, G., Weizman, A., Zalsman, G. (2009) FC01-01 Substance use, Suicidality and adolescent-onset schizophrenia: An Israeli ten-year retrospective study. *European Psychiatry*, 24, S188.
- Silverman, J.G., Raj, A., Mucci, L.A., et al (2001) Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behaviour, pregnancy, and suicidality. *The Journal of the American Medical Association*, 286, 572–579.
- Srivastava, A., Pal, H., Dwivedi, S.N., et al (2002) National Household Survey of Drug Abuse in India. Report submitted to Ministry of Social Justice and Empowerment, Government of India and United Nations Office on Drugs and Crime, Regional Office for South Asia.
- United Nations Office on Drugs and Crime (UNODC) (2010) World Drug Report. United Nations publication.
- Vörös, V., Fekete, S., Hewitt, A., et al (2005) Suicidal behaviour in adolescents-psychopathology and addictive comorbidity. *Neuropsychopharmacologica Hungarica*, 7, 66–71.
- Woods, W.J., Avins, A.L., Lindan, C.P., et al (1996) Predictors of HIV-related risk behaviours among heterosexuals in alcoholism treatment. *Journal of Studies on Alcohol*, 57, 486–493.

-
1. **Ms. Upasana Baruah**, Ph.D. Scholar, Department of Psychiatric Social Work, NIMHANS, Bangalore, India (Corresponding Author) E-mail: upasana.baruah@gmail.com
 2. **Dr. R. Dhanasekara Pandian**, Ph.D., Associate Professor, Department of Psychiatric Social Work, National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore-560029, India.
-

Research Article...

COMPARATIVE ASSESSMENT OF DRUG COMPLIANCE BEHAVIOUR, SEVERITY OF ILLNESS AND QUALITY OF LIFE AMONG PSYCHIATRIC PATIENTS ATTENDING COMMUNITY MENTAL HEALTH CAMPS AND OUTPATIENT DEPARTMENT OF A TERTIARY PSYCHIATRIC HOSPITAL

P N Suresh Kumar¹, Roshan Bijlee², Roy Abraham Kallivayalil³

ABSTRACT

Background: Nearly 10% of the total population in India suffers from mental problems requiring professional help at any point of time. Despite the availability of effective psychiatric interventions, the scarcity of qualified professionals, lack of adequate infrastructure, monitory constraints and pooling of psychiatric treatment services in the urban areas left behind a vast number of people in the rural area from appropriate care. World Health Organization (WHO) has identified community mental health activities as the major area of focus to overcome these shortcomings in psychiatric care, as it is integrated with the primary care system. The aim of the current study was to compare selected psycho-socio-demographic variables, drug compliance behaviour, quality of life and the severity of illness of patients attending Community Mental Health Camps (CMHC) and OPDs of a tertiary psychiatric hospital. **Material and Method:** Sample comprised of 106 subjects, 55 from the OPD of a tertiary psychiatric hospital and 51 from the CMHC of Institute of Mental Health and Neurosciences (IMHANS) with age ranged from 15 years to 72 years of either gender. They were evaluated with general data sheet, Drug Compliance Check List, Clinical Global Impression Scale and WHO QOL – BREF. **Results:** This study concludes that patients attending CMHC were from rural areas, majority were manual labourers, distance travelled to the treatment facility was significantly less, expenditure incurred per visit being significantly less, spouse being the primary care giver, better QOL in the environment domain and less severe illness. Patients attending OPD were younger, had longer duration of treatment, significant family history of mental illnesses, parents being the main primary care givers and had better QOL when the drug compliance was good. **Conclusions:** Considering the scarcity of mental health professionals and lack of mental health facilities in rural areas, this study highlights the usefulness of community mental health activities in the treatment outcome. Similar and more elaborative studies need to be taken up by government and other authorities for planning of mental health programs.

Key Words: *Mental health, community mental health, camps, OPD*

INTRODUCTION

According to WHO (2009), there are nearly 54 million people around the world with severe mental disorders. Mental disorders are increasingly prevalent in developing countries, being a consequence to persistent poverty-driven conditions, demographic transition, conflicts in fragile states and natural disasters. At the same time, more than 50% of developing countries do not provide any care for persons with mental disorders in the community. As a result, more than 75% of people with major depressive disorder in developing countries are inadequately treated.

The condition in India is no different. Nearly 10% of the total population in India (100 million people) suffers from mental

and neurological problems requiring professional help at any point of time (Gururaj & Issac, 2004). Despite the availability of effective psychiatric interventions, the scarcity of qualified professionals, lack of adequate infrastructure and resources, monitory constraints and pooling of psychiatric treatment services in the urban areas have eventually left behind a vast number of people who could not access or receive appropriate care. WHO has identified community mental health activities as the major area of focus to overcome these shortcomings in psychiatric care, as it is integrated with the primary care system. This helps in rehabilitating long stay mental hospital patients in the community, and is very effective in countering the social stigma and in disseminating awareness activities (Saraceno, 2007).

In India, the community mental health activities are not effective except for some isolated initiatives, mainly by certain Non-Government Organizations (NGOs) scattered along the country and few other Governmental initiatives (Patel & Thara, 2003). Patients find it better to approach the mental health camps held at public health centers (PHCs), as there is no stigma associated with a mental hospital. As the medicines are supplied free of cost the compliance is high leading to good treatment response. Patients attending the camps are more socio-occupationally functional as they are treated within society without isolating them in mental institutions. The economically backward strata are benefited the most, and long travel is avoided. There is also a significant and favourable change regarding the attitude and awareness of mental illness among the caregivers.

In the foresaid context, there are not much studies probing the issue of drug compliance behaviour, the quality of life (QOL) and severity of illness of persons attending community mental health camps (CMHC) and OPDs of tertiary referral centers. Hence an attempt is made to compare these two groups in all aspects. It is hoped that the result of the study would throw light into the effectiveness of CMHC which in turn can help the policy makers and experts in this field to implement further such community mental health projects or otherwise, helps to reconsider the pit falls of the current projects and take corrective measure.

Objectives of the study

1. To compare certain selected psycho-socio-demographic variables between patients attending CMHC and OPDs
2. To compare the drug compliance behaviour of patients attending CMHC and OPDs
3. To compare the quality of life of CMHC and OPDs
4. To compare the severity of illness of patients attending CMHC and OPDs

MATERIAL AND METHOD

Sample

The sample of the present study consisted of 106 subjects in two groups, 55 subjects from patients attending the Outpatient Department of Government Mental Health Centre, Kuthiravattom, Kozhikode and 51 subjects attending the rural, CMHC of Institute of Mental Health and Neurosciences (IMHANS) conducted at Kozhikode and Malappuram districts,

drawn by simple random sampling method. The age ranged from 15 years to 72 years of both male and female patients.

Tools

1. General Data Sheet
2. Drug Compliance Check List (Chakravarthy, 1997)
3. Clinical Global Impression Scale (Guy & Rockville, 1976)
4. WHO QOL-BREF (Saxena et al, 2001)

General Data Sheet

Data regarding patient's socio demographic variables, illness and treatment related variables were recorded in a proforma specially designed for the study after detailed interview with the patients and accompanying relatives.

Drug Compliance Check List (Chakravarthy, 1997)

If the patient was found to be non-complaint for the last two weeks of treatment the reason was entered in a non-compliance reasons 13 item checklist after a semi-structured interview. Patients were considered non-compliant if the drug was completely stopped or dose was reduced for two weeks after starting treatment from OPD/ CMHC. This definition for non-compliance has been used in many studies done in the West (Blackwell, 1998). One point will be given to each response marked by the subject for noncompliance behaviour.

Clinical Global Impression scale (Gay & Rockville, 1976)

Clinical global impression scale (CGI) was used to measure overall illness severity. The CGI Scale includes three items 1. Severity of illness 2. Global improvement 3. Therapeutic response (Efficacy Index). Severity of illness is rated on a seven-point spectrum, from one to seven, from not ill to profoundly ill. For the need of Statistical analysis, scores from 1 to 3 was clubbed as mildly ill (1) 4 as moderate (2) and from 5 to 7 as severely ill (3). Global Improvement Scale ranges from 1. Very much improved to 7. Very much worse. Therapeutic response is rated as a combination of therapeutic effectiveness and adverse effects, ranging from 01 to 16.

WHO QOL-BREF (Saxena et al, 2001)

WHO QOL-BREF contains 26 items with four domains 1. Physical health and well being, 2. Psychological health and well being, 3. Social relations and 4. Environment. The scale has been shown to have good discriminate validity, sound content

validity and good test-retest reliability at several international WHO-QOL centres.

Data Collection

The data from all subjects was collected individually after obtaining informed consent by administering the above said tools. The diagnosis was made clinically by the treating psychiatrists using International Classification of Diseases and Related Health Problems (ICD-10) (WHO, 1992).

Statistical Analysis

The data was analyzed with the following statistical techniques. For qualitative assessment 't' test was used. For quantitative assessment Chi-square test was used. For those variables where the frequencies were less, Mann-Whitney U test was used. General linear modeling was done to adjust the effect of significant co-variables.

RESULTS

Table-1 shows the socio-demographic characteristic of patients attending OPD versus CMHC. Patients attending OPD were younger, parents being the primary care givers, had to travel longer distance and need to spend more money for each treatment visit. Patients who availed the facility at CMHC were predominantly Hindus, hailed from rural area, manual labourers and spouses were the primary care givers.

Table 1: Socio-demographic characteristic of patients attending CMHC versus OPD

	Camp (N=51)	OPD (N=55)	χ^2/t	p
Age (Yrs)	43.45±13.72	36.47±10.03	2.97	<0.05
Gender				
Male	28 (54.9%)	35 (63.6)	0.84	>0.05
Female	23 (45.1)	20 (36.4)		
Uneducated	10 (19.6)	3 (5.5)		
Primary	24 (47.1)	23 (41.8)	6.92	>0.05
High school / plus two	16 (31.4)	28 (50.9)		
Diploma/ Degree	1 (2.0)	1 (1.8)		
Unmarried	12 (23.5)	16 (29.1)		
Married	30 (58.8)	31 (61.8)	1.82	>0.05
Widow/separated	9 (17.6)	5 (9.1)		
Hindu	28 (54.9)	25 (45.5)		
Christian	8 (15.7)	1 (1.8)	9.93	<0.05
Muslim	15 (29.4)	29 (52.7)		

	Camp (N=51)	OPD (N=55)	χ^2/t	p
Rural	50 (98.0)	43 (78.2)		
Urban	1 (2.0)	11 (20.0)	9.72	<0.05
Tribal	0(0)	1 (1.8)		
Unemployed	19 (37.3)	34 (61.8)	6.39	<0.05
Employed	32 (62.7)	21 (38.2)		
Monthly income				
Low(< Rs. 2000)	44 (86.3)	48 (87.3)		
Middle Rs.2001-5000	7 (13.7)	5 (9.1)	2.36	<0.05
High (> Rs. 5000)	0(0)	2 (3.6)		
Primary care giver				
Spouse	18 (35.3)	20 (36.4)		
Parents	11 (21.6)	22 (40)		
Children	13 (25.5)	2 (3.6)	14.9	<0.05
Sibling	3 (5.9)	8 (14.5)		
Others	6 (11.8)	3 (5.5)		
Distance(Kms)	22.41±26.05	44.24±38.12	-3.42	<0.05
Expenditure(Rupees)	40.25±49.24	104.09±98.31	-4.27	<0.05

$p<0.05$

Table 2: Illness details of patients attending CMHC versus OPD

	Camp (N=51)	OPD (N=55)	χ^2/t	p
Family H/O				
Psych. illness	8 (15.7)	28 (50.9)	14.64	<0.05
Physical illnesses	8 (15.7)	9 (16.4)	0.009	>0.05
Treatment for physical illnesses	6 (11.8)	5 (9.1)	0.20	>0.05
Duration of Psych. illness	166.71±118.33	143.82±108.49	1.04	>0.05
Duration of treatment (months)	33.00±33.27	52.06±47.90	-2.36	<0.05
No. of hospitalizations	3.25±4.47	3.15±4.10	1401.00	<0.05
Time since last hospitalization	41.02±59.19	32.05±47.47	0.87	>0.05
Psychiatric diagnosis				
Mood disorder	20 (39.2)	17 (30.9)		
Psychoses	29 (56.9)	30 (54.5)		
Neuroses	0(0)	3 (5.5)	4.40	>0.05
Others	2 (3.9)	5 (9.1)		

$p<0.05$

Table-2 shows the illness details of patients attending OPD versus CMHC. Family history of psychiatric illness and duration of treatment was significantly higher in patients attending OPD. Rest of the factors were not significant. Table-3 shows the medication details of patients attending OPD versus CMHC. None of the variables in this section was found to be significantly different between two groups.

Table 3: Medication details of patients attending CMHC versus OPD

	Camp (N=51)	OPD (N=55)	χ^2/t	p
Injection depot-Yes	4 (7.8)	9 (16.4)	1.785	>0.05
No. of medicines/day	2.12±0.82	2.33±1.19	1331.00	>0.05
No. of tablets/day	4.00±2.21	3.84±2.17	1316.50	>0.05
No. of times/day				
Once	8 (15.7)	5 (9.1)		
Twice	30 (58.8)	36 (65.5)	1.125	>0.05
Thrice	13 (25.5)	14 (25.5)		
Supervised drug intake-Yes	25 (49.0)	27 (49.1)	0.000	>0.05
Drug compliance-good	45 (88.2)	41 (74.5)	3.240	>0.05

p<0.05

Table-4 shows the reason for non-compliance in patients attending CMHC. 'Forgetting to take' medicines' was the most important reason for non-compliance followed by 'fed up with drug intake' 'no specific reasons', 'side effects with medicines' in that order.

Table 4: Reason for non-compliance in patients attending CMHC

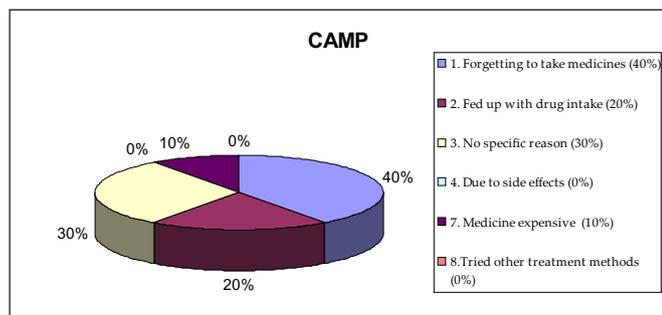


Table-5 shows the reason for non-compliance in patients attending OPD. 'Forgetting to take medicines' and 'fed up with

drug intake' were equally the most important reasons for non-compliance followed by 'side effects with medicines' in that order. Table-6 shows the comparison of four domains of QOL in patients attending CMHC versus OPD. Out of the four domains only the domain IV (environment) was found to be significantly different between two groups.

Table 5: Reasons for non-compliance in patients attending OPD

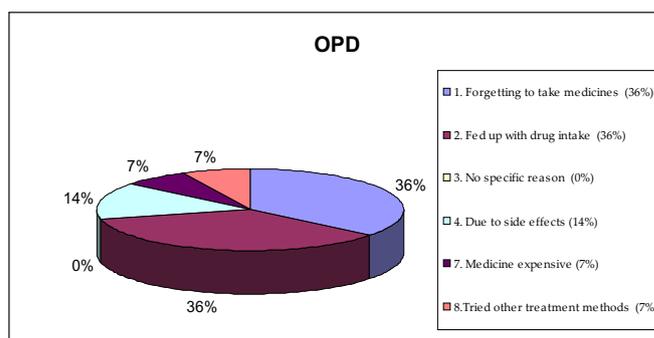


Table 6: Quality of life of patients attending CMHC and OPD

Quality of life	Ref.	Mean	SD	t	p
Physical health & well being	Camp	84.63	20.48	1.24	>0.05
	OPD	79.85	19.17		
Psychological Health & well being	Camp	74.59	16.89	1.86	>0.05
	OPD	68.73	15.49		
Social relationships	Camp	28.86	10.80	-0.82	>0.05
	OPD	30.55	10.28		
Environmental influences	Camp	103.29	21.15	2.42 *	<0.05
	OPD	94.40	16.56		

p<0.05

Even though the camp approach had statistically significant difference in domain IV of QOL, age and duration of treatment interacted with the result because these two variables were significantly different between the two study groups. Hence 'General Linear Modeling' was done, taking domain IV as the outcome variable, and camp approach and OPD approach as the fixed effect factor and age and duration of illness as co-variants. The general linear modeling indicates that the CMHC approach significantly influenced the QOL value in domain IV while age and duration of treatment had no effect when adjusted for the treatment approach.

Table 7: General linear modeling of CMHC approach and OPD approach with age and duration of illness as co-variants

Source	Type III sum of squares	df	Mean square	F
Age	176.613	1	176.61	487
Duration of treatment	6.020	1	6.02	0.02
Approach	1464.967	1	1464.97	4.04 *

p*<0.05Table 8:** Severity of illness of patients attending CMHC and OPD

Severity of illness		Camp	OPD	df	χ^2
		N (%)	N (%)		
Mild		44 (86.3)	34 (61.8)	2	9.67*
	Moderate	7 (13.7)	16 (29.1)		
	Severe	-	23 (21.7)		

**p*<0.05

Table-8 shows the comparison of severity of illness of patients attending CMHC versus OPD. A better outcome in the severity of illness was observed in the CMHC group. Table-9 shows the comparison of drug compliance and severity of illness in patients attending CMHC and OPD. The patients attending CMHC and OPD were first categorized as good and poor based on drug compliance and were further divided into three groups based on severity of illness as mild, moderate and severe. The result shows that irrespective of CMHC/OPD status good drug compliance was associated with a better treatment outcome (i.e., patients are having only mild severity of illness).

Table 9: Drug compliance and severity of illness in patients attending CMHC and OPD

	Drug compliance	CGI – Severity			df	χ^2
		Mild	Moderate	Severe		
Camp	Good	42 (93.3%)	3 (6.7%)	-	1	16.10*
	Poor	2 (33.3%)	4 (66.7%)	-		
OPD	Good	232 (78.0%)	8 (19.5%)	1 (2.4%)	2	19.78*
	Poor	2 (14.3%)	8 (57.1%)	4(28.6%)		

**p*<0.05

Table-9 shows the comparison of drug compliance and quality of life of patients attending CMHC and OPD. Patients attending CMHC and OPDs were first categorized as good and poor based on drug compliance behaviour and comparison was made between these groups on four dimensions of QOL. Drug compliance behaviour of patients attending OPD had got a

positive effect on their QOL. The better the drug compliance better was the QOL.

Table 10: Drug compliance and quality of life of patients attending CMHC and OPD

	Quality of life	Compliance	N	Mean	SD	df	t
Camp	Physical health	Good	45	85.87	20.78	49	1.19
		Poor	6	75.34	16.67		
	Psychological Health	Good	45	75.83	17.41		
		Poor	6	65.34	8.26		
	Social relationships	Good	45	28.98	10.66		
		Poor	6	28.00	12.90		
OPD	Environmental influences	Good	45	104.36	22.00	49	.098
		Poor	6	95.33	11.71		
	Physical health	Good	41	85.46	16.78		
		Poor	14	63.43	16.44		
	Psychological Health	Good	41	71.80	15.75		
		Poor	14	59.71	10.81		
OPD	Social relationships	Good	41	32.39	9.95	53	2.37*
		Poor	14	25.14	9.60		
	Environmental influences	Good	41	98.73	16.09		
		Poor	14	81.71	10.50		
	Physical health	Good	41	85.46	16.78		
		Poor	14	63.43	16.44		
OPD	Psychological Health	Good	41	71.80	15.75	53	2.66*
		Poor	14	59.71	10.81		
	Social relationships	Good	41	32.39	9.95		
		Poor	14	25.14	9.60		
	Environmental influences	Good	41	98.73	16.09		
		Poor	14	81.71	10.50		

**p*<0.05

DISCUSSION

One of the reasons for patients with early onset of symptoms and active symptomatology may be due to forced medical assistance being sought from a tertiary care centre. Similarly there was a significant difference in the family history of mental illnesses in patients attending OPD and CMHC. More patients attending OPD had mental illnesses in the family compared to patients attending CMHC. This can also be considered as a reason for the early age of presentation in OPD group. The relatives of patients with family history of mental illness may be more aware of the illness and hence can detect it earlier and seek treatment from an early age itself. The maximum numbers of patients who availed the facility at CMHC were Hindus but in the OPD set up it was Muslims. In both settings the percentage of Christians was less. This may be a reflection of the caste wise distribution of the society and in the OPD set up of this hospital, where there are large numbers of Muslims living nearby. In the CMHC group, 98% of the patients were from the rural settings. The proximity of treatment facility to their remote rural houses and availability of medicines free of cost and getting treatment from within their locality might have had a positive effect in the rural population in seeking psychiatric treatment from CMHC. This shows that CMHC are more suited for the rural population, which itself, is one of the aims of such mental health camps.

In camps, it was the working class who utilized the facility maximum. In OPD predominantly unemployed patients availed the services. This may be due to the fact that those patients who are working finds it more convenient to attend a camp set up nearby their working facility than availing treatment from a distant tertiary care OPD, which may involve more expenditure and time affecting their employment. This finding also suggests the usefulness of CMHC in rural settings which enables working class and manual labourers to avail the facility to the maximum. Thus it is evident that CMHC in rural set up are very useful for such population, as they need to travel only minimal distance to avail treatment. Similarly, there was significant difference in the expenditure incurred for patients to attend CMHC and OPDs. This also implies that CMHC are highly cost effective for the rural population especially for the lower economic strata. This finding further substantiates one of the basic objectives of community mental health programs in terms of cost effectiveness.

The spouse was the primary care giver in the majority of patients attending CMHC whereas in OPD, parents were the primary care giver in 40% of the patients. Considering the earlier age of seeking treatment and family loading of mental illness, it can be suggested that signs and symptoms of mental illness were picked up early by the parents and were brought to the OPD at an earlier age itself. This may be due to increased awareness due to similar experiences in the family. Substantial number of children had brought their parents in CMHC. This can be considered as an indicator that provided they are supplied with adequate facilities at their primary living place children are ready to look after their parents with psychiatric illnesses.

Patients attending OPD had longer duration of treatment compared to the CMHC patients. It is natural that those patients with florid symptoms and early onset and more severity of the illness may be forced to seek treatment earlier. There was no significant difference in drug intake supervision status of patients attending CMHC versus OPD. When looked in the reasons for non-compliance, both in CMHC and OPD group, 'forgetting to take medicines' was the most important reason. 'Fed up with drug intake' was the next major cause for poor drug compliance in the OPD group, where as it was less frequent in the CMHC group. This is in accordance with the findings of longer duration of treatment and starting medications at a younger age in OPD patients. Probably these two factors might have contributed to the reason of 'fed up with drug intake' attitude in the OPD group.

It is noteworthy that small proportion of the patients with poor drug compliance in the OPD group reported 'side effects with medicines', where as none of the patients in the CMHC reported this. This may be due to better psychoeducation and availability

of new generation medications in the CMHC. Moreover, none in the CMHC reported that they tried other systems of medicine. This can also be taken as an efficacy of CMHC approach in ensuring treatment compliance. The findings of this study are in contradiction to a previous study (Kumar & Andrade, 2002) conducted in India in OPD setting where side effects with medication were the major reasons for non-compliance. This suggests that over a period of time more and more drugs with better side effect profiles are being available for treatment in our part of the world.

When QOL was compared between patients attending OPD and CMHC, patients in the CMHC group had higher QOL in the environment domain. The reason could be that all the facets in this domain i.e., financial resources, freedom, physical safety and security, health and social care, accessibility and quality, transportation, home environment, opportunities for recreations, leisure activities, acquiring new information and skill, physical environment like absence of pollution, noise etc., are better provided in CMHC than in an institutional OPD. This finding also reiterates the concept of de-institutionalization and treatment within the community for a better outcome in psychiatric patients. A collaborative study on severe mental morbidities on community basis showed overall changes in the attitude in a positive direction (Shah et al, 2005). Even though we found that camp approach had statistically significant difference in the environmental influences of CMHC, the variables like age and duration of treatment interacted with the result because these two variables were significantly different between the two groups. A person's age alone can interact with his perception of quality of life. Similarly, longer duration of treatment also can affect one's quality of life. Hence 'General Linear Modeling' was done, taking domain IV (Environment) as the outcome variable, camp approach and OPD approach as the fixed effect factor and age and duration of illness as co-variants. The result indicated that the camp approach significantly influenced the QOL in the domain of environment. This again can be considered as a positive indicator for the usefulness of CMHC.

When comparison was made between the four domains of QOL among patients with good and poor drug compliance attending the CMHC and OPD, good drug compliant OPD patients had a positive effect on their QOL. The better the drug compliance better was their QOL. This finding is in accordance with a previous report of positive relationship between social environment and drug compliance (Mantonakis et al, 1985). However similar findings could not be established for the CMHC group.

When patients attending CMHC and OPD were categorized as good and poor drug compliance and comparison was made,

good drug compliance was associated with a better treatment outcome in the OPD group but not in the CMHC group. The possibility for such a disparity may be due to the fact that majority attending CMHC were already compliant to drugs. This makes these two groups highly asymmetrical.

A better outcome in the severity of illness was observed in the CMHC group than OPD group. This finding suggests that the community based treatment of mental illness integrated to the primary health care system helps in significantly reducing the severity of illness. This may be due to the better involvement of family members and society since the patient is being treated from within the community itself and is not isolated.

CONCLUSION

This study concludes that patients attending CMHC were from rural areas, majority were manual labourer, distance travelled to the treatment facility was significantly less, expenditure incurred per visit was significantly less, spouse was the primary care givers, had better quality of life in the domain environment and severity of illness was significantly less. Patients attending OPD were younger, had longer duration of treatment, more family history of mental illnesses, parents were the main primary care givers and had better QOL when the drug compliance was good. Considering the scarcity of mental health professionals and lack of mental health facilities in rural areas in the background of an alarming number of mentally ill patients, this study highlights the usefulness of community mental health activities in the treatment outcome including certain domains in the quality of life. Similar and more elaborative studies need to be taken up by government and other authorities for planning of mental health programs.

LIMITATIONS

This study had certain limitations. Sample size was small and it was collected from only two districts of Kerala. A larger sample size selected from all districts and all OPD patients could have been more representative and might have given scope for generalization of the findings. Non-compliance was measured only by indirect method. Accurate assessment of non-compliance also needs direct measuring like biochemical assay, which was not done due to practical difficulties. The psychometric properties of the compliance check list have not been estimated. Also an important aspect namely physician related variables were not addressed in this study. A major aspect of psychiatric illness management is rehabilitation and its outcome which was not included in the present study.

REFERENCES

- Blackwell, B. (1998) Compliance. *Psychotherapeutics and Psychosomatic Medicine*, 58, 161.
- Chakravarthy, A.C. (1997) Non-compliance - Indian Experience. *Epilepsy India*, News Letter of Indian Epilepsy Association, July, September 30.
- Gay, W. & Rockville, F. (1976) Clinical Global Impression ECDEU, Assessment Manual for Psychopharmacology. US Department of Mental Health, Education and Welfare. DHEW Publication (ADM), 76 – 338.
- Gururaj, G. & Issac, M.K. (2004) Psychiatric Epidemiology in India: Moving beyond Numbers. Cited in *Mental Health: An Indian Perspective*. S.P. Agarwal (Ed.), Directorate General of Health Services, Ministry of Health & Family Welfare, India.
- Kumar, P.N.S. & Andrade, C. (2002) Factors Associated with Non-compliance in Psychiatric Patients. An Indian Experience. *Indian Journal of Psychological Medicine*, 25, 33-40.
- Mantonakis, J. Markidis, M. Kontaxakis, A., et al (1985) A scale for detection of negative attitudes towards indication among relatives of schizophrenia patients. *Acta Psychiatrica Scandanavica*, 71, 186–189.
- Patel, V & Thara, R. (2003) Meeting the Mental Health Needs of Developing Countries: NGO Innovations in India. SAGE Publications, 1-8.
- Saraceno, B. (2007) Director, WHO Mental Health Department, speech at Global Forum for Community Mental Health Geneva, 30 May, 2007.
- Saxena, S., Carlson, D., Brillington, R., et al (2001) The WHO quality of life assessment instrument (WHOQOL- BREF): The importance of its items for cross- cultural research. *Quality of Life Research*, 10, 711-721.
- Shah, B., Parhee, R., Kumar, N., et al (2005) Mental Health Research in India. *ICMR*, 5–7.
- World Health Organization (2009) Department of Mental Health World Health Organization. Accessed from: www.who.int/topics/mental_health/en.
- World Health Organization (1992) International classification of diseases, Diagnostic Criteria for Research. Geneva: WHO.
-
1. **Dr. P. N Suresh Kumar**, MD, DPM, DNB, PhD, (Corresponding Author) Associate Professor of Psychiatry, KMCT Medical College, Calicut, Kerala. E-mail-drpnuresh@satyam.net.in
 2. **Dr. Roshan Bijlee**, MBBS, DGM, MPhil, Insurance Medical Officer, Calicut, Kerala.
 3. **Dr. Roy Abraham Kallivayalil**, MD, Professor & Head, Department of Psychiatry, Pushpagiri Institute of Medical Sciences, Tiruvalla, Kerala- 689 101

Research Article...

GENDER AND QUALITY OF LIFE IN PERSONS WITH SCHIZOPHRENIA AND ITS RELATIONSHIP WITH PERCEIVED SOCIAL SUPPORT

Sonia Pereira Deuri¹, Kalpana Sarathy², Sobhana H,³ Arif Ali⁴

ABSTRACT

Background: Quality of life and social support across the gender in schizophrenia have been a debated issue with the general premise that well-being is often poorer in the female gender. The present study aimed to explore the gender differences in quality of life and perceived social support in persons with schizophrenia. **Material and Method:** 30 male and 30 female persons with schizophrenia were assessed in this cross-sectional study. The sample was drawn using purposive sampling from LGB Regional Institute of Mental Health (LGBRIMH), Tezpur, Assam and its Community Services. Perceived Social Support scale and Quality of Life (WHOQOL-BREF) were used to assess social support and quality of life, respectively in persons with schizophrenia. **Results:** Significantly higher quality of life in the social domain was found in males than in females. No significant gender differences were noted in various other domains of quality of life and perceived social support. Positive correlation was found between perceived social support and all the domains of quality of life namely social, physical, psychological and environmental. **Conclusion:** Being distinct from the western literature, the present study supports a previous Indian study and infers that quality of life in social domain is significantly higher in males than in females. The present study conducted in Assam also reports that, even though other domains of quality of life and perceived social support are correlated significantly with each other, they do not show significant gender variance.

Keywords: Gender, quality of life, perceived social support

INTRODUCTION

Quality of life (QOL) identified as an important outcome of schizophrenia treatment is defined as 'individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns' (World Health Organization, 1994). Even though the concept of quality of life has been studied over the last three decades, the determinants of QOL for individuals with schizophrenia are yet not very clear (World Health Organization, 1994).

QOL is also an overall sense of wellbeing, of both objective and subjective evaluations of physical, material, social and emotional well-being and personal development and purposeful activity (Felce & Perry, 1996). Evidences suggest that unlike in the west, Indians give priority to 'peace of mind' and spiritual satisfaction over physical and psychological functioning, while for the Europeans, physical functioning is the highest priority (Chaturvedi et al, 1995).

"Perceived social support" entails a cognitive appraisal of being connected to others and its two key dimensions are perceived

availability and perceived adequacy of supportive connections (Barerra, 1986). Social support is closely related to QOL. It has been identified as one of the determinants of health that impacts overall health and in turn quality of life (Barerra, 1986). A support system is vital for people living with schizophrenia, yet at the same time the illness places relationships at risk. Women living with schizophrenia are often at the loose end without major social support.

Literature that compares men and women with schizophrenia indicates that despite having better psychosocial functioning than men, the social context makes quality of life in women more poorer (Kulkarni, 1997). With the onset of illness, women are at risk of losing all that they have achieved: marriage, children, and career. If a woman has children, she risks losing custody of them and has little support in caring for them. Also, there are questions asked about her ability to meet their needs (Miller and Finnerty, 1996).

A multi-centred study on gender and schizophrenia from Canada, United States of America and Cuba has found that gender variation was limited to social relationships in

the quality of life assessment. Women belonging to United States of America and Canada were shown to have better social functioning compared to men. But overall, QOL does not show major variations across genders (Vandiver, 1998). A study from Finland has found that married females with schizophrenia have an independent association and better QOL compared to men, especially in relation to life satisfaction and interpersonal aspects (Salokangas et al, 2001). A study conducted in Germany by Roder-Wanner and Priebe (1995) infers that women seem to be more content with life than men in relation to quality of life. However, this study does not specify gender specific aspects in the concept of QOL. Kulkarni (2001), in a study using the Quality of Life Scale (QLS) in persons with schizophrenia, reported that Australian women generally have a higher quality of life than men particularly in the areas of interpersonal relations, instrumental role and activities.

Unlike western literature, a recent study on gender, disability, quality of life and schizophrenia in India reports of higher quality of life in males than females. Females are more disabled than males. Greater numbers of females are shown to be separated from their spouses or widowed in comparison to males. In the Indian society, mentally ill patients are prone to be abandoned; especially, females are more susceptible to being separated from their spouses (Kujur et al, 2010).

Social contact is most often an unmet need in persons with schizophrenia, especially women. Also, people with mental illness tend to have small, low-density social networks comprised mainly of family members (Brunt & Hansson, 2004). Social support when present within a context of large network size can promote recovery in people with serious mental illness (Goldberg et al, 2003; Mares et al, 2002).

Although, western literature supports the finding that there is gender variation in quality of life and social support, the same may not be true in the Indian set-up and this may vary in the context of diverse communities. Thus the present study was conducted with the objective to explore gender differences in overall quality of life and perceived social support in persons with schizophrenia as well as to assess the relationship between perceived social support and quality of life across both genders.

MATERIAL AND METHOD

Participants

The present study was a hospital based cross-sectional study

with sample drawn from the out-patient and community services of LGB Regional Institute of Mental Health (LGBRIMH), Tezpur, Assam. It was approved by the institute's ethical committee. 60 participants (30 male and 30 female) having schizophrenia as per DCR of ICD-10 (World Health Organization, 1993) were selected using purposive sampling. Written informed consent was taken and patients aged between 20-60 years who were on treatment for the last three months and in a relatively stable condition i.e. scoring < 31 on the BPRS (Overall & Gorham, 1962) were recruited into the study.

Tools

The following tools were used for the study:

1. A semi structured interview schedule for socio-demographic details.
2. Perceived Social Support scale (Nehra et al, 1996)
3. World Health Organization Quality of Life Scale – Bref scale: It has 4 domains—physical, psychological, social, environmental. The tool was translated to local language i. e. Assamese (WHOQOL, 1998).

Statistical analysis

Pearson's Chi square and t test were computed where ever appropriate to see the differences between the two groups in socio demographic and clinical variables as well as in quality of life and perceived social support. For correlational analysis, Pearson's correlation coefficient was calculated.

RESULTS

The socio demographic characteristics of the subjects are summarized in table 1. In both the groups, majority (50% of males and 53.3 % of females) were in the age range of 20-30 years, and were educated up to secondary level (73.3% of males and 56.6% of females). 56.6% of males were unmarried whereas 50 % of females were married. An equal percentage of the sample group were hailing from nuclear family (73.3 %) and from a rural background (76.6%). Majority were from the Assamese linguistic community (53.3 male, 46.6 female) and belonging to non- ethnic background (70 male, 86.6 female). In the male group most of them were engaged in agriculture/ daily wage earners (46.6 %) and in female group most were homemakers (33.3 %). Majority of the subjects belonged to 'upper lower class' and having medium size of family as given in the table. Except in linguistic community ($\chi^2=8.033$; $p<.05$)

and occupation ($\chi^2=15.524$; $p<.05$), no statistical significant difference was found between the two groups.

Table 1: Socio demographic profile

Variables	Male (N=30) n (%)	Female (N=30) n (%)	χ^2	df	p			
Age Group								
20-30	15 (50)	16 (53.3)	6.28	3	.099			
31-40	11 (36.6)	5 (16.6)						
41-50	3 (10)	9 (30)						
51-60	1 (3.3)	0 (0)						
Education Status								
Literate	1 (3.3)	1 (3.3)	2.64	4	.620			
Primary	5 (16.6)	7 (23.3)						
Secondary	22 (73.3)	17 (56.6)						
Graduate	2 (6.6)	4 (13.3)						
Postgraduate	0	1 (3.3)						
Marital Status								
Unmarried	17(56.6)	14 (46.6)	1.239	2	.538			
Married	11 (36.6)	15 (50)						
Others	2 (6.6)	1 (3.3)						
Religion								
Hinduism	27 (90)	27 (90)	1.200	2	.549			
Islam	3 (10)	2 (6.6)						
Christianity	0	1 (3.3)						
Ethnicity								
Tribal	9 (30)	4 (13.3)	2.25	1	.209			
Non-tribal	21(70)	26 (86.6)						
Linguistic Community								
Assamese	16 (53.3)	14 (46.6)	8.033	3	.045*			
Bengali	4 (13.3)	6 (20)						
Nepali	1 (3.3)	7 (23.3)						
Others	9 (30)	3 (10)						
Occupation								
Home Maker	1 (3.3)	10 (33.3)	15.524	6	.017*			
Student	3 (10)	2 (6.6)						
Business	4 (13.3)	2 (6.6)						
Private Employment	-	1 (3.3)						
Dailywage /Agriculture	14(46.6)	4 (13.3)						
Unemployment	6 (20)	7 (23.3)						
Artisan	2 (6.6)	4 (13.3)						
Domicile								
Urban	4 (13.3)	3 (10)				.286	2	.867
Rural	23 (76.6)	23 (76.6)						
Semi-urban	3 (10)	4 (13.3)						
Type of Family								
Nuclear	22(73.3)	22 (73.3)	.000	1	.614			
Joint	8 (26.6)	8 (26.6)						
Socio-economic Status								
Low	11 (36.6)	5 (16.6)	5.94	4	.203			
Upper Low	11 (36.6)	13 (43.3)						
Low Middle	7 (23.3)	10 (33)						
Upper Middle	1 (3.3)	-						
Upper	-	2 (6.6)						
Size of Family								
Small (1-3)	5 (16.6)	2 (6.6)	2.313	2	.315			
Medium(4-6)	19(63.3)	18 (60)						
Large(7 and Above)	6 (20)	10 (33)						

* $P<0.05$ ** $P<0.01$

In the clinical profile presented in Table 2, both majority of the males (76.6%) and females (66.6 %) had an age of onset between 18-31 years, with average duration of illness being 8.03 years (male) and 8.10 years (female) and no precipitating factor in the majority (80%) for both genders. Majority had an insidious onset (96.6% male & 90 % female), continuous course (83.3% male & 80 % female), positive family history (46.6 % male 36.6 % female) and in both the groups patients believed that the illness is caused by something unknown to them (60% male & 56.6 % female). No significant difference was found between the two groups.

Table 2: Clinical profile

Variables	Male (N=30) n (%)	Female (N=30) n (%)	χ^2	df	p
Age of Onset					
13- 18 Year	6 (20)	4 (13.3)	4.181	2	.124
18-35 Years	23 (76.6)	20 (66.6)			
35 Years and Above	1 (3.3)	6 (20)			
Precipitating factor					
Present	6 (20)	6 (20)	.000	1	1.000
Absent	24 (80)	24 (80)			
Mode of onset					
Acute	1 (3.3)	1 (3.3)	2.07	2	.355
Abrupt	0	2 (6.6)			
Insidious	29 (96.6)	27 (90)			
Course of Illness					
Continuous	25 (83.3)	24 (80)	.132	2	.936
Episodic Remittent	1 (3.3)	1 (3.3)			
Incomplete Remission	4 (13.3)	5 (16.6)			
Insight Regarding Illness					
Complete Denial	2 (6.6)	1 (3.3)	1.848	4	.764
Slight Awareness of Being Sick	3 (9.9)	2 (6.6)			
Blaming Others for Their Illness	5 (16.6)	5 (16.6)			
Illness Caused by Something Unknown	18 (60)	17 (56.6)			
Intellectual Insight	2 (6.6)	5 (16.6)			
History of Mental Illness in Family					
Present	14 (46.6)	11 (36.6)	.617	1	.601
Absent	16 (53.3)	19 (63.37)			
Duration of illness (Mean \pm SD) (Yrs.)	8.03 (6.881)	8.10 (6.413)	-.039	58	.543

The comparison between male and female persons with schizophrenia on various domains of quality of life is presented

in table 3. Except in the social domain of quality of life, where males scored significantly higher than females, there were no gender differences in persons with schizophrenia.

Table 3: Gender differences in various domains of Quality of life

Domains of QOL	Gender (N=60)				t	df	p
	Male (N=30) Mean (SD)		Female(N=30) Mean (SD)				
1. Physical	13.22	3.08	13.22	2.14	.000	58	.127
2. Psychological	12.36	2.32	12.53	1.694	-.330	58	.441
3. Social Domain	12.28	2.34	12.20	1.545	.173	58	.033*
4. Environmental	11.74	1.78	11.85	1.21	-.264	58	.602
5. Overall	11.80	3.04	12.46	2.41	-.939	58	.228

* $P < 0.05$

Table 4 shows the results of perceived social support compared across gender. No significant differences are found between the two groups. Table 5 shows the results of correlation between quality of life and perceived social support. There was significant positive correlation ($P < 0.01$) between perceived social support and all domains of quality of life i.e. social, physical, psychological and environmental.

Table 4: Gender differences in Perceived social support score

	Male (N=30) Mean (SD)	Female (N=30) Mean (SD)	t	df	p
Perceived social support	44.30 (5.754)	43.83 (4.983)	.336	58	.665

Table 5: Relationship between perceived social support and quality of life

Variables	Social domain	Physical domain	Psychological Domain	Environmental Domain	Over all quality of life
Perceived social support	r .621**	.551**	.649**	.551**	.585**

** $P < 0.01$

DISCUSSION

The demographic data of the present study (Table 1) was in keeping with the general population of Assam. The society in large also comprises of a larger population having high school education and of 'upper low class' background (Patel et al, 2007) hailing from agricultural background with both genders involved in managing farmlands. The multi-centred

collaborative study SOFACOS (1988) and other studies in India like Kujur et al (2010) also have shown that most of the respondents belonged to agrarian set-ups. Significant difference found in occupational status reflects the socially prevalent gender roles.

The present study showed no significant variation across gender in most of the domains of quality of life (Table 3). This is more in keeping with the findings from majority of western literature and research (Roder-Wanner and Priebe, 1995; Vandiver, 1998). However, the only domain where a significant variation is noted was the social domain (Table 3). It showed that males have a better social quality of life than females. Kujur et al (2010) has also indicated that Indian women have a poorer quality of life compared to males. Although, this finding is indicative of the social disparity that exists in the Indian society, it reiterates the inconsistency in the results of QOL assessment across gender. Further, the findings could be attributed to the gender differences in coping and communication and with majority of women as home makers, their status could also be intrinsically related to the activities they carry out daily. In traditional and rural based agrarian societies like in the north-east, managing home fronts are seen to be the most accepted & available engagement and diversion. This enables them in providing a buffer for their emotional experiences and maintaining supportive relationships in the family and society unlike their male counterparts.

On correlating quality of life and perceived social support, it was seen that there was a positive correlation (Table 5) and it supports the previous findings on the importance of social support & quality of life for patients with mental illness (Barerra, 1986). This finding also agrees with the World health organization's stand that the concept of QOL is centred on the social and cultural environment of the individual (World Health Organization, 1994).

LIMITATIONS

Matched respondents on criteria like education, age and income in both the genders could have been undertaken. Qualitative information could have been included to broaden the understanding of social support and QOL. Small sample size limits the generalizability of the findings; studies assessing the gender variation in QOL could be conducted with larger populations.

CONCLUSIONS

It was found that except for the social domain quality of life, which was poorer in women than in men, there was no gender difference in most quality of life domains and perceived social support in a cross-section of persons from both gender in a predominantly Assamese, educated, upper lower class, agrarian, rural population with schizophrenia. The concept of sustaining and enhancing social support should be the focus and thrust for psychiatric social worker interventions in schizophrenia towards improving the quality of life.

REFERENCES

- Barerra, M. (1986) Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, 14, 413-445.
- Brunt, D. & Hansson, L. (2004) The quality of life of persons with severe mental illness across housing settings. *Nordic Journal of Psychiatry*, 58, 293-298.
- Chaturvedi, S.K., Savithasri, E.V., Sekar, K.R. (1995) General concepts of QOL, Quality of Life in Health & Disease, Proceedings of Symposium. Bangalore: NIMHANS publication.
- Felce, D. & Perry, J. (1996) Exploring current conceptions of quality of life-A model for people with and without disabilities. In: Renwick, R., Brown, U., Nagler, M. (Eds.), *Quality of life in health promotion and rehabilitation*, pp.51-62, CA: Sage.
- Goldberg, R.W., Rollins, A.L., Lehman, A.F. (2003) Social network correlates among people with psychiatric disabilities. *Psychiatric Rehabilitation Journal*, 26, 393-404.
- Kujur, N.S., Kumar, R., Verma, A.N. (2010) Differences in levels of disability and quality of life between genders in schizophrenia remission. *Industrial Psychiatry Journal*, 19, 50-54.
- Kulkarni, J. (1997) Women and schizophrenia: A Review. *Australian and New Zealand Journal of Psychiatry*, 31, 46-56.
- Kulkarni, J. (2001) Gender differences in the quality of life of people with schizophrenia. Presentation at 1st World Congress on Women's Mental Health, Berlin, Germany.
- Mares, A.S., Young, A.S., McGuire, J.K., et al (2002) Residential environment and quality of life among seriously mentally ill residents of board and care homes. *Community Mental Health Journal*, 38, 447-458
- Miller, L.J. & Finnerty, M. (1996) Sexuality, pregnancy, and child rearing among women with schizophrenia-spectrum disorders. *Psychiatric Services*, 47, 502-506.
- Nehra, R., Kulhara, P., Verma, S.K. (1996) Adaptation of social support questionnaire in Hindi. *Indian Journal of Clinical Psychology*, 23, 33-39.
- Overall, J.E. & Gorham, D.R. (1962) The Brief Psychiatric Rating Scale. *Psychological Reports*, 10, 799-812.
- Patel, A., Prabhu, A., Dibley, M.J., et al (2007) Wealth Index Scale. *Journal of Pediatrics*, 74, 349-352.
- Röder-Wanner, U.U. & Priebe, S. (1995) Schizophrenia and quality of life--sex-specific aspects. *Fortschritte der Neurologie-Psychiatrie*, 63, 393-401.
- Salokangas, R.K., Honkonen, T., Stengård, E., et al (2001) To be or not to be married- that is the question of quality of life in men with schizophrenia. *Social Psychiatry and Psychiatric Epidemiology*, 36, 381-390.
- SOFACOS (1988) Study on Factors Associated with Course and Outcome in Schizophrenia. Final report. New Delhi: ICMR Publication.
- Vandiver, V.L. (1998) Quality of life, gender and schizophrenia: a cross-national survey in Canada, Cuba, and USA. *Community Mental Health Journal*, 34, 501-511.
- WHOQOL (1998) Introduction, administration, scoring and generic version of the assessment. Geneva: World Health Organization.
- World Health Organization (1994) *Qualitative research for Health Programme*. Division of Mental Health, Geneva: World Health Organization.
- World Health Organization (1993) *The ICD 10 Classification of Mental and Behavioural Disorders: Diagnostic Criteria for Research*. Geneva: World Health Organization.

-
1. **Dr. Sonia Pereira Deuri**, Associate Professor, (Corresponding Author), Dept. of Psychiatric Social Work, LGBRIMH, Tezpur, Assam. E-mail: soniadeuri@sify.com
 2. **Ms. Kalpana Sarathy**, Associate Professor, Dept. of Social Work, Mizoram University, Aizawl, Assam.
 3. **Ms. Sobhana H**, Assistant Professor, Dept. of Psychiatric Social Work, LGBRIMH, Tezpur, Assam.
 4. **Mr. Arif Ali**, Psychiatric Social Worker, Dept. of Psychiatric Social Work, LGBRIMH, Tezpur, Assam.
-

Research Article...

PSYCHIATRIC REFERRAL CHARACTERISTICS AT A TERTIARY CARE HOSPITAL: A FRESH APPRAISAL

Rajesh Rastogi¹, Madhusudan², Kuldip Kumar³, Pankaj Verma⁴, Abhinit Kumar⁵, Manushri Gupta⁶

ABSTRACT

Background: Studying the pattern of referrals to the psychiatric unit in a general hospital set up has been important in terms of understanding the awareness regarding psychiatric disorders in other fraternities, the current understanding of psychiatric comorbidities and their management. It also helps generating data for designing better consultation liaison services and setting up new and better general hospital psychiatric units. The aim of this study was to study the referral characteristics of inpatients of various departments to the psychiatric unit at a tertiary care general hospital in the present scenario. **Material and Method:** All inpatient referrals made to the psychiatric unit over a period of six months were analyzed retrospectively in terms of clinician recorded socio-demographic data, referring unit, reason for referral, whether reason matched with examination findings, whether proper organic workup was done or not, past psychiatric history and current psychiatric diagnosis. **Results:** A total of 354 referrals were received over a period of six months comprising 1.01% of total indoor admissions. Half of the referrals were from medicine department (50.28%) followed by burns and plastic surgery department (13.84%). Referrals made for altered behaviour and psychosis (31.92%) were the commonest reason, closely followed by self harm related referrals (30.50%). Deliberate self harm impulsive, delirium and substance use disorder were the most common psychiatric diagnoses made. Past psychiatric history was found in 23.16%. In almost 43% of cases examination findings did not match the reason for referral, while in more than a quarter of cases the referral was found to be done prematurely without proper investigation of an organic brain syndrome. **Conclusion:** The present study highlights the importance of a psychiatric unit in a general hospital setup for holistic patient care. Considerable variation is found between various departments in referral rates and the inpatient referral rate is still poor. Importance of psychiatric comorbidity comes to the fore as considerable numbers of patients are found to have past history of psychiatric illness and there is a need to sensitize clinicians for organic brain syndromes and psychiatric comorbidity.

Keywords: *Psychiatric referral, tertiary care hospital, appraisal*

INTRODUCTION

Recognition and understanding of a wider and broader range of psychological comorbidities which occur frequently in physical illnesses has made the role of psychiatric unit important and stronger than ever (Maguire et al, 1974; Lipowski, 1981, 1986; Wig, 1978). General hospital psychiatry is generally considered to be originated because of huge expenditure involved in setting up new mental hospitals and lack of funds and infrastructure. With time several changes have ushered like bringing psychiatry out of mental hospital and to setup psychiatry services in general hospital. Therefore, general hospital psychiatry enables direct interaction of the psychiatrist with physically ill patients, bridging the gap

between psychiatry and other medical specialties and hence increasing the number of referrals from non-psychiatric departments and assuming a greater and important role in public health system by taking care of the mental health of the major chunk of population (Malhotra, 1984; Parkar & Sawant, 2010). Studying the patterns of psychiatric comorbidity in physical illnesses or the pattern of referral to a psychiatric unit in general hospitals is important for future education and training of medical personals (Lipowski & Wolston, 1981).

Besides, in a country like India where the stigma is pronounced and the awareness is lacking, these types of studies are useful in understanding how psychiatry is seen by the other

medical fraternity, the level of awareness about psychiatric comorbidities and the need for their proper redressal. They also generate data which may help policy makers to set up newer, appropriate and adequate general hospital psychiatric units. All this prompted us to take up this study. The aim of the study was to study the referral characteristics of inpatients of various departments to the psychiatric unit at a tertiary care general hospital in the present scenario.

MATERIALS AND METHOD

The study was conducted in the Department of Psychiatry, Safdarjung hospital which is a 1531 bedded multispecialty tertiary care hospital situated in a well connected part of South New Delhi, India. The department maintains a referral register where senior resident doctors mention the details of the referral seen which is monitored periodically by the senior faculty. All indoor patients referrals received by the psychiatric unit over a period of six months from 1st of July to 31st of December, 2010 were analyzed retrospectively over a variety of parameters such as socio-demographic data, referring unit, reason for referral, past history of psychiatric illness, whether the reason for referral matched with the examination findings or not, the provisional psychiatric diagnosis, and whether proper diagnostic work up was done before referral of organic brain syndromes or not.

RESULTS AND DISCUSSION

A total of 354 inpatient referrals were received by the psychiatric unit over a period of six months between 1st of July to 31st of December, 2010. Out of the total number of patients admitted in the hospital during this period, mere 1.01 % of the inpatients were referred. This rate is lower than the data from western countries (Schofield et al, 1986; Freyne et al, 1992) but is higher or comparable with previous Indian studies done more than three decades back (Jindal & Hemrajani, 1980; Prabhakaran, 1968; Parekh et al, 1968), indicating the trend has improved but is still not very healthy.

The average age of patients was 31.25 years with the age range being 4 to 96 years. Majority of patients belonged to the age group 20-40 years (62.14%) while children and elderly comprised 1.69% and 3.10% respectively. Male-female ratio was 1.11, with number of males outweighing females.

Table 1: Department wise referrals

S. No	Department	No. of referrals (n=354)	%
1	Medicine	178	50.28
2	Burns and plastic Surgery	49	13.84
3	Orthopaedics	29	08.19
4	Obs and Gynae#	24	06.77
5	Neurology	17	04.80
6	Intensive Care Unit	15	04.23
7	Surgery	12	03.38
8	Paediatrics	9	02.54
9	CTVS##	6	01.69
10	Respiratory medicine	4	01.12
11	Cardiology	4	01.12
12	Others (ENT###, Radiotherapy, Cancer)	7	01.97

Obstetrics and Gynaecology

Cardiothoracic and vascular Surgery

Ear Nose and Throat

Table 2: Reasons for referral

S. No.	Reasons for referral	N=354	%
1	Altered sensorium, abnormal behaviour, psychosis related	113	31.92
2	Suicide/Self harm related	108	30.50
3	Assessment of patient with h/o# substance use	32	09.03
4	Non specific or unclear reason/no reason for referral	28	07.90
5	Patient apparently having neurological symptoms	24	06.77
6	Patient with h/o psychiatric treatment/illness	15	04.23
7	Patient with depressive/anxiety symptoms	14	03.95
8	Patient with medically unexplained somatic symptoms	12	03.38
9	Post partum psychiatric assessment	6	01.69
10	Assessment of the ability to give consent for the procedure	2	00.56

h/o= history of

Department wise referrals

The major source of referrals (Table 1) was from medicine department comprising of almost half of the referrals (50.28%) as has been reported similarly in earlier studies followed by

burns and plastic surgery department (13.84%), orthopaedics (8.19%), obstetrics and gynaecology (6.77%) and neurology (4.80%). The number of referrals from general surgery and paediatrics was relatively low at 3.38% and 2.54% respectively (Lipowski & Wolston, 1981; Jindal & Hemrajani, 1980; Prabhakaran, 1968).

If we combine the referrals from medical super specialities (cardiology, neurology, respiratory medicine) with the referrals from general medicine, it reaches up to 57.34% which correlates well with earlier studies, while total number of combined referrals from general surgery and super specialities (orthopedics, cardiothoracic surgery, burns and plastic surgery) stands at 27.11% which is quite a high figure in contrast to previous Indian studies, which report it to be around 14% (Jindal & Hemrajani, 1980; Prabhakaran, 1968; Parekh et al, 1968).

Reasons for referral

Altered behaviour and psychosis were the most common reason for referral (31.92%) closely followed by referrals that indicated suicide/self harm related symptoms like, suicide attempt or ingestion of substance or suicidal burns etc (Table 2).

Table 3: Psychiatric diagnoses

Psychiatric diagnosis made	N=354 (%)
Delirium/Organic mental disorders	79(22.31%)
Deliberate self harm impulsive/Intentional self harm	52(14.68%)
Alcohol and other substance dependence syndromes	32(9.03%)
No psychopathology	30(8.47%)
Depressive episode	20(5.64%)
Psychosis NOS	10(2.82%)
Bipolar affective disorder	5(1.41%)
Dissociative (Conversion) disorder	5(1.40%)
Puerperal psychosis /Depression	4(1.12%)
OCD/Anxiety	4(1.12%)
Adjustment disorder	4(1.12%)
Schizophrenia	3(0.84%)
Catatonic stupor	2(0.56%)
Personality disorder	2(0.56%)
Schizoaffective disorder	1(0.28%)
Diagnosis inconclusive/not mentioned /under evaluation	101(28.53%)

Assessment for patients with history of substance use was the third most common reason (9.03%) followed by referrals with unclear/no reason (7.90%). Neurological symptom was the reason mentioned in 6.77% cases, while depressive/

anxiety symptoms in 3.95% and medically unexplained somatic symptoms in 3.38% were the reasons mentioned. Interestingly, assessment of patients with past history of psychiatric illness admitted for some other reason was the reason behind just 4.23% of all referrals, which is still a small minority. 1.69% represented post partum psychiatric assessment for suspected post-partum psychosis. These findings are comparable to earlier studies except the higher representation of substance use related referrals in our study (Malhotra, 1984; Prabhakaran, 1968).

Psychiatric diagnoses

The senior resident doctors examining the cases gave working provisional diagnoses as per ICD-10 (World Health Organization, 1992) which was reviewed by the senior faculty monitoring the referrals periodically.

The most common diagnosis reached was delirium or acute brain syndrome in 22.31% cases (Table 3). This was reported in earlier studies (Prabhakaran, 1968; Zuo et al, 1985; Adeyemi, 1996) too.

Interestingly "Deliberate self-harm impulsive" was the provisional diagnosis mentioned in the second largest group of cases (14.68%), instead of suicide attempt or intentional self harm as probably there was no evidence of an intent to die or underlying depression or any other psychiatric disorder as the reason for the attempt. However, this term does not officially find a place in ICD-10 (World Health Organization, 1992) or DSM-IV-TR (American Psychiatric Association, 2000) currently as a diagnostic category. Although it has been reported and acknowledged earlier that generalizing self-harmers to be suicidal is, in the majority of cases, inaccurate (Fox & Hawton, 2004; Suyemoto, 1998). Furthermore there is a trend in recent literature to use these types of terms in an attempt to reach a more neutral terminology until further evaluation and definitive diagnosis of an underlying disorder is made (Muehlenkemo, 2005). This may have an implication on the felt need for such an official diagnostic category in times to come.

Third most common diagnosis was alcohol and other substance dependence syndromes (9.03%), which stands in contrast to previous Indian studies where these diagnoses were not represented much (Malhotra, 1984; Prabhakaran, 1968). Depression was the diagnosis in 5.64 percent of cases which happens to be higher than what was found by Parekh et al (1968) and lower than reported by Bhogale et al (2000). This

indicates change in referral patterns over time due to variation in hospital set up and patient inflow characteristics. Interestingly, schizophrenia was the diagnosis in less than one percent (0.84%) cases while bipolar disorder in a little more than one percent (1.41%), these findings standing in contrast to the earlier studies where these diagnoses represented significantly higher proportion of cases (Parekh et al, 1968; Bhogale et al, 2000). Dissociation-conversion spectrum disorders comprised 1.40 % of the diagnoses which is similar to western studies (Freyne et al, 1992) while it is less than what is reported in previous Indian studies (Parekh et al, 1968).

In little more than a quarter of cases (28%) the diagnosis was not conclusive or was pending further evaluation or information was not sufficient to make a primary psychiatric diagnosis. This is similar to the previous common observation that a large number of patients referred to consultation liaison services are given no psychiatric diagnosis (Lipowski & Wolston, 1981; Schofield et al, 1986). Another interesting finding was that the psychiatric examination findings did not match with the reason for referral in almost 43% of cases. This might indicate lack of awareness in other specialties and lack of exposure and training in psychiatry at undergraduate level as has been stressed in earlier studies as well (Lipowski & Wolston, 1981; Dhaval & Barve, 1990).

Table 4: Past history of psychiatric illness

Past psychiatric history	N=354 (%)
Yes	82 (23.16%)
No	227 (64.12%)
Not available (e.g. No reliable informant/ records)	15 (04.23%)
Not mentioned	30 (08.47%)

Past psychiatric history was found in 23.16% of cases while in 12.70% cases it could not be commented upon either because of paucity of information or inadequate documentation of findings. This becomes more significant in the light that only 4.23% of patients were primarily referred for having past history of psychiatric illness while on examination much larger proportion of patients (23.16%) were found to have a history of psychiatric illness or treatment being taken putting forth the fact of comorbidity of psychiatric illness with other physical illnesses in general hospital inpatients (Table 4).

In more than a quarter of cases (27.68%) it was found that the treating team made the psychiatric referral without

proper investigation of an organic brain syndrome, probably opining primary psychiatric disorders being the cause for the presentation. This finding suggests lack of awareness and training in other fraternities regarding organic brain syndromes and a general trend was noticed to regard every behavioural manifestation to have a primary psychiatric cause and hence to rule out psychiatric causes first. In addition a tendency was noticed not to investigate further if the patient has some comorbid psychiatric illness and to relate every manifestation to it and a sort of rejection of such patient occurs. Similar findings have been described in older Indian studies and are echoed in recent reviews which point towards the painful reality that even after such a long time, awareness regarding psychiatric comorbidity and holistic care is an unfulfilled dream in our country (Jindal & Hemrajani, 1980; Prabhakaran, 1968; Dhaval & Barve, 1990; Grover, 2011).

Furthermore this might be the reason why the psychiatrist had to keep the diagnosis pending in over a quarter of referrals until further investigations were carried out and organic causes ruled out first as the cause behind the manifestation.

LIMITATIONS

Being a retrospective study, it has its own limitations in the form of data availability and interpretation.

CONCLUSION

Our study once again highlights the importance of psychiatric unit embedded in a general hospital set up. Increased representation of substance use disorder and depression in the referrals and poor representation of schizophrenia and dissociative (conversion) disorders reflect change in referral characteristics over time while the referral rate still remains poor. High incidence of psychiatric comorbidity and past history of psychiatric illness in a number of referred patients indicate the need to understand the importance of coming out from the body-mind dichotomy and to better understand how bodily symptoms can affect the mind and vice versa. It also stresses the need to sensitize medical fraternity regarding organic brain syndromes and psychiatric co-morbidity as many referrals were done without proper investigations being carried out to rule out organic causes for the manifestations, which negatively affects patient management. In short, consultation liaison psychiatry has still a long way to go in our country, where it finds its rightful place with an awareness that psychiatric illness can be comorbid and physical illness can have psychiatric

manifestation and in such cases a holistic approach is the way to go with consultation liaison psychiatry unit becoming an indispensable part of the care group.

REFERENCES

- American Psychiatric Association (2000) Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington, DC: APA.
- Adeyemi, J.D. (1996) In-patient psychiatric referrals in a teaching hospital: A case controlled report. *Journal of Psychosomatic Research*, 41, 427-433.
- Bhogale, G.S., Katte, R.M., Heble, S.P., et al (2000) Psychiatric referrals in multispecialty hospital. *Indian Journal of Psychiatry*, 42, 188-194.
- Dhaval, H.S. & Barve R.G. (1990) Psychiatric referral pattern in general hospital. *Journal of Postgraduate Medicine*, 36, 199-202.
- Fox, C. & Hawton, K. (2004) *Deliberate Self-Harm in Adolescence*. London: Jessica Kingsley
- Freyne, A., Buckley, P., Larkin, C. (1992) Consultation liaison psychiatry within the general hospital: Referral pattern and management. *Irish Medical Journal*, 85, 112-114.
- Grover, S. (2011) State of consultation-liaison psychiatry in India: Current status and vision for future. *Indian Journal of Psychiatry*, 53, 202-213.
- Jindal, R.C. & Hemrajani, D.K. (1980) A study of psychiatric referrals in a general hospital. *Indian Journal of Psychiatry*, 22, 108-110.
- Lipowski, Z.J. (1986) Consultation liaison psychiatry: The first half of century. *General Hospital Psychiatry*, 8, 305-315.
- Lipowski, Z.J. (1981) Holistic-medical foundations of American psychiatry: A bicentennial. *American Journal of Psychiatry*, 138, 888-895.
- Lipowski, Z.J. & Wolston, E.J. (1981) Liaison psychiatry: Referral pattern and their stability over time. *American Journal of Psychiatry*, 138, 1608-1611.
- Maguire, G.P., Julier, D.L., Hawton, K.E., et al (1974) Psychiatric morbidity and referrals on two general medical wards. *British Medical Journal*, 1, 268-270
- Malhotra, S. (1984) Liaison Psychiatry in General Hospitals. *Indian Journal of Psychiatry*, 26, 264-273.
- Muehlenkamp, J.J. (2005) Self-Injurious Behaviour as a Separate Clinical Syndrome. *American Journal of Orthopsychiatry*, 75, 324-333.
- Parekh, H.C., Desmukh, B.D., Bagadia, V.N., et al (1968) Analysis of Indoor Psychiatric referrals in a General Hospital. *Indian Journal of Psychiatry* 10, 81-83.
- Parkar, S.R. & Sawant, N.S. (2010) Liaison psychiatry and Indian research. *Indian Journal of Psychiatry*, 52, 386-388.
- Prabhakaran, N. N. (1968) In-patient psychiatric referrals in a general hospital. *Indian Journal of Psychiatry*, 10, 73-77.
- Schofield, A., Doonan, H., Dal, R.J. (1986) Liaison psychiatry in an Irish hospital: A survey of an year's experience. *General Hospital Psychiatry*, 8, 119-122.
- Suyemoto, K.L. (1998) The functions of self-mutilation. *Clinical Psychology Review*, 18, 531-554.
- World Health Organization (1992) *The ICD-10 Classification of Mental and Behavioural Disorders (CDDG)*. Walton Street, Oxford: Oxford University Press.
- Wig, N.N. (1978) General Hospital psychiatric unit: Right time for evaluation. *Indian Journal of Psychiatry*, 20, 1-9.
- Zuo, C.L., Yang, L., Chu, C.C. (1985) Patterns of psychiatric consultation in a Chinese general hospital. *American Journal of Psychiatry*, 142, 1092-1094.

-
1. **Dr. Rajesh Rastogi** (Corresponding author) Consultant & HOD, Department of Psychiatry, Safdarjung Hospital & V M Medical College, New Delhi-110029. Email: rajesh_rastogi@yahoo.co.in
 2. **Dr. Madhusudan**, Senior Resident, Department of Psychiatry, VMMC and Safdarjung Hospital New Delhi 110029.
 3. **Dr. Kuldip Kumar**, Associate Professor, Department of Psychiatry, VMMC and Safdarjung Hospital, New Delhi 110029.
 4. **Dr. Pankaj Verma**, Assistant Professor, Department of Psychiatry, VMMC and Safdarjung Hospital, New Delhi 110029.
 5. **Dr. Abhinav kumar**, Senior Resident, Department of Psychiatry, VMMC and Safdarjung Hospital, New Delhi 110029.
 6. **Dr. Manushri Gupta**, Senior Resident, Department of Psychiatry, VMMC and Safdarjung Hospital, New Delhi 110029.
-

Research Article...

**COGNITIVE ERROR, NEGATIVE AUTOMATIC THOUGHT, METACOGNITION AND MINDFULNESS
IN DEPRESSION: A CONTROLLED STUDY**

Madhumita Bhattacharyya¹, D. Ram²

ABSTRACT

Background: Cognitive error and negative automatic thoughts are common in depressed patients. Several studies have shown that there is lack of mindfulness and meta-cognition in depressed patients. Studies also showed that the meta-cognitive model involving positive and negative meta-cognitive beliefs and rumination fits the data of depressed individuals. There are few studies conducted with the depressed patients by including cognitive error, automatic thought, meta-cognition and mindfulness together. This can reflect whether meta-cognition and mindfulness act as buffers to cognitive error and automatic thought and hence to reduce cognitive error and thus prevent relapse. The aim of the study was to study cognitive error, negative automatic thought, meta-cognition and mindfulness among patients of Major Depressive Disorder. **Material and Method:** A sample size of 60 patients was taken consisting of a group of 30 patients of depression and 30 normal control as fulfilling inclusion and exclusion criteria. The patients and control group were evaluated on Cognitive Error Questionnaire (CEQ), Automatic Thoughts Questionnaire (ATQ), Metacognition Questionnaire (MCQ), and Freiburg Mindfulness Inventory (FMI). Hamilton Depression Rating Scale (HDRS) was used to measure the severity of depression. **Results:** Depression group scored significantly higher in overgeneralization, personalization and total score of Cognitive Error in comparison to normal control but less on catastrophization. In Automatic thought, the patient group scored significantly higher. The negative belief about worry and corresponding danger, positive belief, cognitive confidence as well as total score of meta-cognition were significantly high in the patient group. Mindfulness was significantly higher in depression group. **Conclusions:** The present study found that the depression group showed high Cognitive Error and Automatic Thought, but less of Meta-cognition and Mindfulness. Female patients showed high mindfulness; employed patients showed higher meta-cognition. Urban patients scored higher in severity of depression and had less meta-cognition.

Keywords: *Depression, meta-cognition, mindfulness, automatic thoughts, cognitive error*

INTRODUCTION

Major depressive disorder (MDD) is a mental disorder characterized by an all-encompassing low mood accompanied by low self-esteem, and by loss of interest or pleasure in normally enjoyable activities. It has been reported that presence of higher number of cognitive error and negative automatic thoughts are common in depressed patients (Kenny & Williams, 2007). Several studies have shown that there is less presence of mindfulness and meta-cognition in Depressed patients (Kingston et al 2007; Kuyken et al, 2008). High levels of anxiety and depression are associated with biases such as attention to negative information, interpretation of ambiguous situations as negative and preferential recall of negative words. The negative as well as positive cognitive errors influence a great deal in depressed mood. Studies also showed that the

meta-cognitive model involving positive and negative meta-cognitive beliefs and rumination fits the data of depressed individuals (Papageorgiou & Wells, 2003). There is evidence that presence of mindfulness is helpful for modifications of cognitive error in depression and prevents relapse (Eissendarth et al, 2010). Studies also report that negative meta-cognitive beliefs about the uncontrollability and danger of worry significantly predict residual change in depression after controlling the negative effect of stressful life events and that developing meta-cognition helps to reduce negative biases of thought (Wells, 2000). To the best of our knowledge there are very few studies conducted with depressed patients by including these four variables (cognitive error, automatic thought, meta-cognition and mindfulness) together, which can reflect that the meta-cognition and mindfulness act as a buffer to cognitive

error and automatic thought and enhance to reduce cognitive error and prevent relapse.

MATERIAL AND METHOD

This study was conducted on both indoor and outdoor patients of Central Institute of Psychiatry (CIP) Ranchi, Jharkhand. The aim of the study was to study cognitive error, negative automatic thought, meta-cognition and mindfulness among patients of Major Depressive Disorder and compare it with normal control. The subjects were screened as per inclusion and exclusion criteria and a sample size of 60 consisting of a group of 30 patients of depression and 30 normal control were taken. Inclusion criteria for patients included age between 18 years to 50 years; diagnosis of depression as per Diagnostic Criteria for Research of ICD 10 (World Health Organization, 1993), education level atleast VIth grade; either gender; score of >17 on Hamilton Depression Rating Scale (HDRS); patients suffering from depression for a minimum of two months. The normal controls were age, sex and education matched with the patient group and score was less than or equal to 3 as per General Health Questionnaire-12 (GHQ-12) (Goldberg and Williams, 1978). Exclusion criteria for patients were comorbid substance abuse, neurological we disadness, general medical illness (requiring additional treatment), mental retardation, or any other Axis 1 disorder as per ICD 10.

The patients and control group were evaluated on Cognitive error Questionnaire (CEQ) (Lefebvre, 1981), Automatic Thoughts Questionnaire (ATQ) (Hollon & Kendall, 1980), Metacognition Questionnaire (MCQ) (Cartright-Hatton & Wells, 1997), and the Freiburg Mindfulness Inventory (FMI) (Freiburg, 2004). Hamilton Depression Rating Scale (HDRS) (Hamilton, 1967) was used to measure the severity of depression.

Analysis

Data was analyzed using statistical package for social science 16.0.

RESULTS

The table 1 shows the comparison of socio-demographic variables between patient and control group. Mean age of patients with major depressive disorder 40.07±10.32 years. They had 12.02±2.39 years of education. The majority of patients were females, married, Hindu, employed and from urban background. The comparison with normal control was insignificant with respect to all the variables.

Table 1: Socio-demographic profile

Variable	Patient (N=30) n % / Mean ± SD	Control (N=30) n % / Mean ± SD	χ ² / t	p	
Age (in years)	40.07 ±10.32	39.05 ± 9.31	0.03	0.990	
Education(in years)	12.03 ±2.37	11.07 ±2.40	1.57	0.926	
Sex	Males	12 (40.00)	12 (40.00)	0.00	0.000*
	Females	18 (60.00)	18 (60.00)		
Marital Status	Married	23 (76.7)	23 (76.70)	0.00	0.000*
	Unmarried	7 (23.33)	7 (23.33)		
Religion	Hindu	26 (5.11)	21 (70.00)	2.46	0.105
	Others	4 (13.33)	9 (30.00)		
Domicile	Rural	3 (10.00)	4 (13.33)	1.02	0.601
	Urban	27 (90.00)	26 (75.11)		
Occupation	Employed	18 (60.00)	19 (63.33)	0.07	0.500
	Unemployed	12 (40.00)	11 (36.66)		

*p<0.001

Table 2: Comparison of scores of Cognitive error, Automatic thought, Metacognition and Mindfulness between patient and control group

Variables	Depression (N=30) Mean±SD	Control (N=30) Mean±SD	t	P
Cognitive Error Questionnaire				
Cat	20.50±3.52	22.20±2.21	2.26	<.05
Ove	28.80±3.90	23.20±2.12	6.90	<.05
Per	30.40±3.82	23.60±2.43	8.27	<.05
Total	78.80±8.29	69.40±5.06	5.30	<.05
Automatic Thought Questionnaire	93.36±7.0	48.46±5.29	24.49	<.001
Metacognition Questionnaire				
Neg.Bel	17.73±2.96	19.87±2.90	2.82	<.05
Pos. Bel.	8.83±1.86	18.93±3.69	13.38	<.001
Cog. Con	8.80±2.77	18.53±3.70	11.57	<.001
Neg Bel Tht	17.60±3.93	18.57±4.09	0.93	NS
Cog. self Con.	17.40±3.48	15.87±3.44	2.77	<.05
Total	65.40±6.48	89.33±4.92	16.12	<.001
Freiberg Mindfulness Inventory	24.70±3.03	34.37±3.05	12.30	<.001

*p <0.05; ** p<0.001; NS = Not Significant

Cat-Catastrophization, Ove-Overgeneralization, Per- Personalization, Neg.Bel- .Negative Belief about Worry and corresponding danger, Pos. Bel.- Positive Belief, Cog. Con - Cognitive Confidence, Neg Bel-Tht Negative Belief about Thought In general relating to superstitions, punishment and responsibility, Cog.self Con - Cognitive Self Consciousness, NS- not significant.

Table 2 shows that depression group scored significantly higher in Overgeneralization ($p < 0.05$), Personalization ($p < 0.05$) and Total score on Cognitive Error ($p < 0.05$) in comparison to normal control. But they scored significantly less in Catastrophization ($p < 0.05$). In Automatic thought ($p < 0.001$) the patient group scored significantly higher. The Negative Belief about worry and corresponding danger ($p < 0.05$), Positive Belief ($p < 0.01$), Cognitive Confidence ($p < 0.001$) as well as total score of Meta-cognition ($p < 0.001$) were significantly higher in patient group. The score of Mindfulness ($p < 0.001$) was significantly higher in depression in comparison to normal control.

Correlations were performed in the experimental group which showed that the score of negative Automatic Thought correlated positively with Cognitive Error. The severity of depression was found to be positively correlated with Cognitive Error and negative Automatic Thought and negative correlation was found with Metacognition. The study also showed that the female gender had significantly higher Mindfulness as compared to their male counterparts. Unemployment and rural domicile had significantly higher Metacognition.

DISCUSSION

Socio-demographic characteristics

The mean age and education of the patient of Major depressive Disorder was 40.07 ± 10.32 years and 12.03 ± 2.37 years, respectively. Females, married, hindu, employed and people dwelling urban background were over represented. A study by Ram and Jha (1990) with depression patients showed that male had the higher preponderance in the group where males were over represented in the sample. Kaholokula et al (2008) found females were predominant in the depression patient group in their study. In our study females were more in number in comparison to the male patients in the sample. William et al (2008) in their study with depression patients found the group consisted of predominantly unmarried, females, and urban domicile, unemployed and lower socio-economic strata. In another study the age of the depression group was 40 years. The prevalence of depression was more in females (Coelho et al, 2003)

Cognitive Error, Automatic Thought, Meta-cognition, and Mindfulness

This study showed that the groups differed significantly in terms of overgeneralization and personalization (cognitive error),

which means that the patients of Major Depressive Disorder tend to use significantly greater amount of overgeneralization and personalization and less amount of catastrophization as found in the study. Prezant and Neimeyer (1988) in their study found that depression patients mostly use overgeneralization. The finding of another study done by Yilmiaz (2008) was consistent with our finding that depression patients use maximum amount of overgeneralization and personalization. The depression patients were also found to be harboring significantly more negative automatic thought. The result is consistent with the finding of the study done by Williams (2003). The results of this study indicate that the depressive group had significantly less positive belief, negative belief about worry and, cognitive confidence, cognitive self-consciousness and total score of Meta-cognition although it was found that the patient group had higher cognitive self-consciousness (a subscale of meta-cognition) than the normal control group. The results of the study are consistent with the findings reported by Wells (1997). The two domains (positive beliefs about worry, and cognitive confidence) represent meta-cognitive knowledge about the usefulness of perseverative thinking as a coping strategy and the ineffectiveness of memory and judgment. Overall these variables might reflect diminished confidence in coping and a need to anticipate problems (through worry and rumination) in order to function. These are a marker for low meta-cognitive confidence, as individual believes that worrying is a helpful strategy to cope with intrusive thoughts (e.g. about disease), or searching for information because of one's lack of trust in his or her own capabilities. In addition, it is possible to postulate that negative beliefs about worry concerning uncontrollability, beliefs about the need to control thoughts, and high self-consciousness taken together are a marker for the tendency to monitor and control intrusive thoughts. In turn, the strategies that are employed to control intrusive thoughts, if maladaptive (e.g. perseverative thinking and thought suppression), will lead to an increase in the accessibility of negative information about the self. Kenny and Williams (2007) in their study postulated that negative beliefs about worry concerning uncontrollability of danger, negative beliefs about the need to control thoughts, positive belief and high self-consciousness can be taken together as a marker for the tendency to monitor and control intrusive thoughts. In turn, the strategies that are employed to control intrusive thoughts, if maladaptive (e.g. perseverative thinking and thought suppression), might lead to an increase in the accessibility of negative information about the self. This study showed another interesting finding that the normal control

group has more mindfulness compare to the depression group which is consistent with study done by Wells (2000).

Correlation of Cognitive Error, Automatic Thought, Metacognition, Mindfulness and severity of depression in patient group

This study showed the score of negative automatic thought correlated positively with cognitive error. Severity of depression was found to be positively correlated with cognitive error and negative automatic thought and negative correlation found with metacognition. Patients of Major Depressive Disorder failed to understand that they unnecessarily apprehend about something negative about them, their environment, about their future and their thinking is colored by many cognitive errors (Wells, 2000). Probably for these reasons they had less meta-cognition and due to lack of metacognition they harbour more cognitive errors. Thus it can be said that experience of negative emotion such as depression had negative and meaningful relation with metacognition. The younger generation especially those from the urban background, get more exposure, who are more aware of psychotherapy, try to know the reason behind their illness, and literate, these might be the reasons behind this finding.

Cognitive Error, Automatic Thought, Metacognition and Mindfulness in terms of socio-demographic variables in the Depression group

This study showed that females had higher sense of mindfulness than their male counterparts. A study (Wells, 2000) showed that males performed better than females when mindful learning was not encouraged (absolute instruction), but males and females performed equally well when mindful learning was encouraged (conditional instruction). Females seemed more interested in the path of liberation and subsequent enlightenment, probably for this reason female showed higher mindfulness in this study.

Similarly unemployed patients showed higher meta-cognition than the employed patients. Ownsworth's (2010) study showed somewhat similar result. The unemployed patients get time to access psychotherapy, read books, practice or follow whatever being asked to follow in the therapy sessions. This might be the reason for the unemployed patients to have higher meta-cognition. Patients who were hailing from urban background scored significantly higher in HAM-D and had significantly less meta-cognition. Patients from urban background have more work pressure, stress, sound and light pollution which

can contribute to their higher score in HAM-D, at the same time excessive work load, stress and time constraint, they do not get adequate time to go through any psychotherapy and follow-up sessions. This might contribute to their less perception of meta-cognition.

CONCLUSION

The study was a comparative study conducted at the Central Institute of Psychiatry, Ranchi, India. It can be concluded that patients with depression have high cognitive errors and automatic thoughts with impaired mindfulness and metacognitive abilities. Further it was seen that metacognition was associated with better adjustment and it was directly proportional to mindfulness.

REFERENCES

- Alper, F. (2009) The thought control questionnaire: A measure of individual differences in occupation and economic strata. *Social Behaviour Research*, 22, 871-878.
- Bishop, A., Bjork, R.A., Mathew, P. et al (2007) Memory and metamemory considerations in the training of human beings. In: Metcalfe, J. & Shimamura, A.P., (Eds.), *Metacognition: knowing about knowing*, 185-205. Cambridge: MIT Press.
- Cartwright-Hatton, S. & Wells, A. (1997) Beliefs about worry and intrusions: The meta-cognitions questionnaire and its correlates. *Journal of Anxiety Disorders*, 11, 279-296.
- Coelho, H.F., Canter, P.H., Ernst, E. (2003) Mindfulness-based cognitive therapy: evaluating current evidence and informing future research. *Journal of Consulting Clinical Psychology*. 75, 1000-1005.
- Eisendrath, S.J., Delucchi, K., Wells, A. et al (2010) Mindfulness-based cognitive therapy for treatment resistant depression: A pilot study. *Psychotherapy and Psychosomatics*, 77, 319-320.
- Freiberg, H.J., Spitzer, C., Bishop, P. et al (2004) Measuring mindfulness: The Freiburg Mindfulness Inventory (FMI). *Personality and Individual Difference*, 40, 1543-1555.
- Goldberg, D.P. (1978) *Manual of the General Health Questionnaire*. Slough: NFER.
- Hamilton, M. (1967) Development of a rating scale for primary depressive illness. *British Journal of Social and Clinical Psychology*, 6, 278-296.
- Hollon, S.D. & Kendall, P.C. (1980) Cognitive distortions in depression; Development of an automatic thought questionnaire. *Cognitive Therapy and Research*, 4, 238-239.

- Kaholokula, S., Matthew. B., Kugler. S. (2008) Gender difference in depression. *Journal of Experimental Social Psychology*, 78, 1565-1578.
- Kenny, M.A. & Williams, J.M.G. (2007) Treatment-resistant depressed patients show a good response to mindfulness-based cognitive therapy. *Behaviour Research and Therapy*, 45, 617-625.
- Kingston, T., Dooley, B., Bates, A. et al (2007) Mindfulness based cognitive therapy for residual depressive symptoms. *Psychology and Psychotherapy: Theory, Research and Practice*, 80, 193-203.
- Kuyken, W., Byford, S., Taylor, R.S. (2008) Mindfulness based cognitive therapy to prevent relapse in recurrent depression. *Journal of Consulting and Clinical Psychology*, 40, 341-348.
- Lefebvre, M.F. (1981) Cognitive distortion and cognitive errors in depressed psychiatric and low back pain patients. *Journal of Consulting and Clinical Psychology*, 49, 517-525.
- Moritz, R. (2009) Depression assessment and intervention: current status and future directions. In: Brown, S. & Lent, R.. (Eds.), *Handbook of counselling psychology*, pp. 691-718, New York: Wiley.
- Owensworth, T. (2010) A meta-cognitive contextual approach for facilitating return to work following acquired brain injury: three descriptive case studies. *Journal of Social Psychology*, 10, 381-388.
- Papagorgiou, J. & Wells, A. (2003) Meta-cognition and Mindfulness in rumination in recurrent depression. *Cognitive and Behavioural Practice*, 8, 160-164.
- Prezant, D.W. & Neimeyer, R.A. (1988) Cognitive Predictors of Depression and Suicide Ideation. *Suicide and Life Threatening Behaviour*, 18, 259-264.
- Ram, P. & Jha, S. (1990) Prevalence of Gender in Depression: A controlled study. *Cognitive Behaviour Therapy and Research*, 35, 890-899.
- Wells, A. (1997) *Cognitive therapy of anxiety disorders: A practice manual and conceptual guide*. Chichester, UK: Wiley.
- Wells, A. (2000) *Emotional Disorders and Metacognition: Innovative cognitive Therapy*. Chichester, UK: Wiley.
- Williams, A. & Mathews, T. (2003) Degree of Cognitive Distortions and level of Depression in Bulimic Patients. *Journal of Behaviour Therapy and Experimental Psychiatry*, 38, 234-241.
- Williams, A. (2003). *Psychotherapy*, 45, 1170-1182. New York: Guilford Press.
- Williams, J.G.M., Russell, I., Russell, D. (2008) Mindfulness-based cognitive therapy: Further issues in current evidence and future research. *Journal of Consulting and Clinical Psychology*, 76, 524-529.
- Williams, J.B. (2003) Do we need to challenge thoughts in Cognitive behaviour therapy? *A clinical psychology review*, 17, 157-167.
- World Health Organization (1993) *ICD-10: Diagnostic Criteria for Research*. Geneva: World Health Organization.
- Yilmiaz, D. (2008) Mindfulness-based cognitive therapy: further issues in current evidence and future research. *Journal of Consulting and Clinical Psychology*, 76, 524-529.
-
1. **Ms. Madhumita Bhattacharyya**, M.Phil in Medical and Social Psychology, Central Institute of Psychiatry, Kanke, Ranchi-834006.
 2. **Dr. D. Ram**, M.D., Director Professor of Psychiatry, (Corresponding Author), Central Institute of Psychiatry, Kanke, Ranchi-834006. E-mail: cipranchi@hotmail.com
-

Research Article...

INTERACTION OF LIFE EVENTS, SOCIAL SUPPORT, COPING STRATEGIES AND QUALITY OF LIFE IN ATTEMPTED SUICIDE: A CASE CONTROL STUDY

P. N Suresh Kumar¹, Biju George²

ABSTRACT

Background: Deliberate self-harm is a major cause of concern in health care globally. Though it encompasses a wide variety of medical and social disciplines, some of the important psycho-social variables and their mutual interactions such as life events, social support, coping strategies and quality of life are yet to be explored in depth. **Aims:** To analyze and to explore the interaction of life events, coping strategies, social support and quality of life of suicide attempters compared to matched normal controls and to further identify risk factors leading to suicide. **Method:** Fifty suicide attempters were compared to an identical number of age, sex and marital status matched healthy controls using the Presumptive Stressful Life Events Scale, Social Support Questionnaire, AECOM Coping Style Scale and WHO QOL – BREF. **Results:** Untoward life events revealed positive correlation with many unhealthy coping styles and negative correlation with healthy coping styles in suicide attempters. Unexpectedly, many healthy coping styles correlated positively with most of the social support variables and QOL domains in suicide attempters, but only with few of these in normal controls. QOL variable environment disclosed negative correlation with total, personal and undesirable life events in attempters. Among risk factors, desirable life events, good education and good social support were found to be protective against suicide. **Conclusions:** Paradoxical to normal controls, suicide attempters exhibited positive interaction with several of the protective factors against suicide. Despite this positive interaction, occurrence of suicide attempts indicates that some other unidentifiable factors may be operating in these individuals as a leading factor to attempt suicide. This suggests that it is difficult to pinpoint a single factor or factors responsible for suicidal behaviour. It is the complex interplay of various interrelated factors and the resultant buffering effect, which is protecting the individual against attempting suicide.

Key Words: *Attempted suicide, life events, social support, coping, quality of life*

INTRODUCTION

Life events lead to suicide attempts only when they occur in individuals vulnerable to suicidal behaviour (Rich et al, 1991). Suicidal individuals experience a greater number of stressful life events in the few months or weeks prior to the attempt (Power et al, 1985). A particular problem in life event and suicide research lies in ascertaining the extent to which life events that precede suicidal behaviour are independent of or caused by antecedent factors, including socio-demographic factors, personality factors, social support, coping styles and psychiatric disorders. Lack of social support may be stressful independently or may indicate a lack of a buffer against psychosocial stress originating from life events (Overholser et al, 1990). Rudd (1990) has noted a significant relationship between social support and both life stress and suicidal ideation. Coping mechanisms serve as an internal source of emotional strength and mediates a personal

reaction to any perceived stress, whether internal or external (Lazarus, 1974). Individuals who attempt suicide have more difficulties in coping with interpersonal problems than non-suicidal population (Lineham et al, 1986). Life events and coping styles can alter the situation and function of the social support system in terms of size, frequency of interaction, and stability and such changes may be associated with suicidal behaviour. QOL is another important component that mediates suicide risk. Many studies in this area have reported a negative association between QOL and suicide (Blow et al, 2004).

The interface between stressful life events, coping strategies, social support and quality of life seems to be complex. However, only limited studies have explored the inter-relationship between these important variables. Moreover, literature about the relationship between these factors from India is conspicuous by its absence. An awareness of the relationship between

these factors will definitely help in the prevention and further management of this health hazard.

OBJECTIVES

- To analyze the type and severity of life events, coping strategies, social support and quality of life of suicide attempters versus normal controls
- To identify the risk factors leading to suicide

MATERIAL AND METHODS

Study sample

The sample comprised fifty suicide attempters qualifying the criteria for 'suicide attempt' - as defined by WHO (1968) admitted to different departments of a general hospital. These patients were interviewed within the first week of their admission. Patients below the age of 18 years and those whose physical condition did not allow detailed evaluation were excluded from the study purview. Wherever possible, relatives, friends and other possible sources of information such as spouse and colleagues were interviewed for eliciting inputs. There were no other exclusion criteria.

Normal persons of the same age, sex and marital status formed the control group. The age was matched by grouping age at 5 years intervals. These subjects were initially screened by GHQ-12 version (Goldberg & Williams, 1998) to exclude the presence of common mental disorders. Those who scored out of normal (out of score 2/3 mode) were excluded from the control group.

TOOLS

1. Personal Data Sheet

A specially designed proforma was used for documenting socio-demographic variables, illness variables and details of the current suicide attempt.

2. Presumptive Stressful Life Events Scale (PSLE)

This scale consists of fifty-one life events commonly experienced by normal Indian adult population (Singh et al, 1984). One hundred was the highest stress score and 'zero' indicated 'no perceived stress'. Scale items were further classified into (a) desirable, undesirable or ambiguous and (b) personal or impersonal (not dependent on the individual action). Reliability of PSLE scale (0.8) has been found to good in previous studies (Sharma & Ram, 1988). Life events experienced in the year prior to attempt was collected for this study.

3. Social Support Questionnaire

This scale was specially developed for the study by pooling items from Social Support Scale of Asha (1996) and the Social Support Scale of Nehra et al (1996) by item analysis. Out of 47 items 22 were positively worded and 25 negatively worded. The positive statements were intermingled with negative statements to reduce the likelihood of response set occurring. The retest reliability obtained for this scale was 0.89.

4. Albert Einstein College of Medicine (AECOM) Coping Style Scale

This is a 95-item scale (Plutchik & Conte, 1989) with a four-possibility spectrum ranging from 'never' to 'very often'. The scale measures eight basic coping styles that may be used for reducing stress and coping with life problems. These coping styles are (1) Suppression (avoiding the problem or situation) (2) Help seeking (asking others for help) (3) Replacement (ability to overcome stressful events by engaging in alternative behaviours) (4) Blame (blame others for the problems) (5) Substitution (engaging in tension-releasing activities such as alcohol or drug abuse) (6) Mapping (ability to collect information for planning and to seek out alternative solutions to problems) (7) Reversal (acting opposite of the way one feels) and (8) Minimization (ability to de-emphasize the burden of stressful events). The internal validity of the scale was found to have a value of between 0.58 and 0.79 with a mean a value of 0.70. The questionnaire had both predictive validity and discriminative validity.

5. WHO QOL – BREF

WHO QOL – BREF (Saxena et al, 2001) contains 26 items with four domains 1. Physical health and well being, 2. Psychological health and well being, 3. Social relations, and 4. Environment. The scale has been shown to have good discriminated validity, sound content validity and good test-retest reliability at several international WHOQOL centers.

Statistical analysis

For comparison of quantitative variables paired t test or Wilcoxon Signed Rank test was used depending on whether the data were normally distributed or not. Quantitative variables were compared by McNemar Chi-Square test. Correlations of different variables were calculated by Pearson Correlation Coefficient. Conditional Logistic regression analysis was used to identify the risk factors. SPSS-10.0 (Bryman, 2001) and Epiinfo 3.2 (Alperin & Miner, 2003) were used for statistical analyses.

RESULTS

Table 1: Sample characteristics

Variable	Attempters N=50	Controls N=50
Mean age (yrs)	30.82	31.54
SD	13.46	13.12
Mean education (yrs)	9.40	14.6
SD	3.79	3.35
Mean monthly income (Rs.)	3317.00	9401.64
SD	2999.55	1129.95
Sex		
Male n (%)	22 (44%)	22 (44%)
Female n (%)	28(56%)	28(56%)
Marital status		
Married n (%)	30 (60%)	30 (60%)
Religion		
Hindu n (%)	39 (78%)	33 (66%)
Muslim n (%)	9(18%)	11(22%)
Christian n (%)	2 (4%)	6 (12%)
Domicile		
Rural n (%)	25 (70%)	25 (50%)
Occupation		
Employed n (%)	36 (72%)	28 (56%)
Type of family		
Nuclear n (%)	25 (50%)	33 (66%)
Type of marriage		
Arranged n (%)	23 (46%)	23 (46%)
Psychiatric illness in first degree relatives		
n (%)	16 (32%)	8 (16%)
Past Psychiatric Illnesses		
n (%)	7 (14%)	0 (0%)
Medical Illnesses		
n (%)	12 (24%)	5 (10%)
Suicide Threats		
n (%)	24 (48%)	1 (2%)
Number of Past Attempts (Mean rank)		
n (%)	56.76	44.24
Current Psychiatric Diagnosis		
n (%)	41(82%)	0 (0%)

The psycho-socio-demographic characteristics of the study sample and control group is shown in table-1. The correlation of different types of life events with social support, coping and QOL variables is shown in table-2. Total life events showed positive correlation with blame and negative correlation with environment in attempters. Undesirable life events showed negative correlation with support from reliable attachment and QOL variable environment in attempters. Desirable life events showed positive correlation with religion in normals.

Table 2: Correlation of different types life events with other variables

		Attempters	Controls
		r	r
Total life events	AECOM		
	Blame	0.304**	0.194
	Suppression	0.148	0.340**
	QOL		
	Environment	-0.325**	-0.054
Undesirable life events	AECOM		
	Suppression	-0.189	0.391*
	SOCIAL SUPPORT		
	Reliable attachment	-0.278**	-0.049
	QOL		
	Environment	-0.329**	0.004
Desirable life events	SOCIAL SUPPORT		
	Religion	0.191	0.297**
Personal life events	AECOM		
	Blame	0.292**	0.276**
	Substitution	0.300**	0.170
	Suppression	0.206	0.340**
	SOCIAL SUPPORT		
	Teachers/parents figures/elders	-0.049	0.307**
	QOL		
	Environment	-0.304**	0.029

$p < 0.05$; $p < 0.01$; AECOM: Coping Style Questionnaire; QOL: Quality of life

Table-3 shows the correlation of social support variables with other variables. Total social support showed positive correlation with all the four domains of QOL and coping styles minimisation, help seeking, replacement, mapping and reversal in attempters. Support from reliable attachment showed positive correlation with coping styles minimisation and reversal and all the four domains of QOL and negative correlation with undesirable life events in attempters. Support from friends showed positive correlation with three domains of QOL and coping styles minimisation, replacement, substitution and reversal in attempters. Support from teachers, parental figures and elders showed positive correlation with all the four domains of QOL and coping styles minimisation, help seeking, replacement, mapping and reversal in attempters. Religion showed positive correlation with desirable life events in normals. Support from other sources showed positive correlation all the four domains of QOL and minimisation and reversal in attempters.

Table 3: Correlation of different types of social support with other variables

Social support variables	Other variables	Attempters (r)	Controls (r)
Total score	QOL		
	Physical health & well being	0.510*	0.375*
	Psychological health & well being	0.386*	0.511*
	Social relations	0.508*	0.416*
	Environment	0.496*	0.424*
	AECOM		
	Minimization	0.519*	0.265
	Help seeking	0.290**	0.037
	Replacement	0.425*	0.481*
	Mapping	0.305**	0.494*
Reversal	0.501*	0.313*	
Reliable attachment	AECOM		
	Minimization	0.369*	0.265
	Reversal	0.340**	0.063
	PSLE		
	Undesirable life event score	-0.278**	0.195
	QOL		
Physical health & well being	0.339**	0.208	
Psychological health & well being	0.365*	0.187	
Social relations	0.341**	0.250	
Environment	0.299*	0.241	
Friends	AECOM		
	Minimization	0.462*	0.232
	Replacement	0.336**	0.542*
	Substitution	0.333**	-0.014
	Reversal	0.370*	0.419*
	QOL		
	Physical health & well being	0.314**	0.310**
Psychological health & well being	0.091	0.371*	
Social relations	0.293**	0.321**	
Environment	0.309**	0.156	
Teachers, parental figures and elders	AECOM		
	Minimization	0.410*	0.244
	Help seeking	0.456*	0.308**
	Replacement	0.417*	0.385*
	Mapping	0.370*	0.557*
	Reversal	0.499*	0.359*
	PSLE		
	Personal life event score	-0.007	0.307**
QOL			
Physical health & well being	0.384*	0.244	
Psychological health & well being	0.371*	0.504*	
Social relations	0.463*	0.394*	
Environment	0.416*	0.365*	
Religion	PSLE		
Desirable life event score	0.191	0.297**	
Other sources	AECOM		
	Minimization	0.413*	-0.039
	Reversal	0.370*	0.045
	QOL		
	Physical health & well being	0.573*	0.319**
	Psychological health & well being	0.399*	0.454*
Social relations	0.471*	0.276	
Environment	0.580*	0.576*	

*-p<0.05; **-p<0.01

Table 4: Correlation of different coping patterns with other variables

	Attempters (r)	Controls (r)
Minimization		
Social Support		
Total score	0.519*	0.265
Reliable attachment	0.369*	0.265
Friends	0.462*	0.232
Teachers, parental figures and elders	0.410*	0.244
Other sources	0.413*	-0.039
PSLE		
Desirable life events	0.294**	-0.021
QOL		
Physical health & well being	0.548*	0.086
Psychological health & well being	0.341**	0.225
Social relations	0.366*	0.309**
Environment	0.303**	0.204
Suppression		
PSLE		
Undesirable life events	0.189	0.391*
Total life events	0.148	0.340**
QOL		
Physical health & well being	0.040	-0.276**
Environment	-0.038	-0.293**
Help seeking		
Social Support		
Total score	0.290**	0.037
Teachers, parental figures and elders	0.456*	0.308**
QOL		
Physical health & well being	0.381*	-0.135
Psychological health & well being	0.371*	-0.125
Social relations	0.344**	-0.171
Replacement		
Social Support		
Total score	0.425*	0.481*
Friends	0.336**	0.542*
QOL		
Physical health & well being	0.554*	0.118
Psychological health & well being	0.466*	0.051
Social relations	0.462*	0.233
Environment	0.357**	0.044
Blame		
PSLE		
Total life events	0.304**	0.194
Personal life events	0.292**	0.276
Substitution		
Social Support		
Friends	0.333**	-0.014
PSLE		
Personal life events	0.300**	0.170

	Attempters (r)	Controls (r)
QOL		
Physical health & well being	0.322**	-0.032
Psychological health & well being	0.309**	-0.034
Mapping		
Social Support		
Total score	0.305**	0.494*
Teachers, parental figures and elders	0.370*	0.557*
PSLE		
Undesirable life events	-0.028	0.306**
QOL		
Physical health & well being	0.369*	-0.014
Psychological health & well being	0.415*	0.366*
Social relations	0.323**	0.332**
Reversal		
Social Support		
Total score	0.501*	0.313**
Reliable attachment	0.340**	0.063
Teachers, parental figures and elders	0.499*	0.359*
Other sources	0.370*	0.045
QOL		
Physical health & well being	0.384*	0.163
Psychological health & well being	0.415*	0.366*
Social relations	0.481*	0.180
Environment	0.277	0.026

*- $p < 0.05$; **- $p < 0.01$

Table-4 shows the correlation of different coping pattern with other variables. In attempters, minimisation showed positive correlation with all social support variables except religion, all the four domains of QOL and desirable life events in PSLE. In controls suppression showed positive correlation with total life events and undesirable life events and negative correlation with physical health and well being and environment in the QOL. In attempters help seeking showed positive correlation with all the four domains of QOL except religion, total social support score and support from teachers, parental figures and elders. In attempters, replacement showed positive correlation with all the four domains of QOL, total social support score and support from friends. In attempters, blame showed positive correlation with total life events and personal life events. In attempters, replacement showed positive correlation with all the four domains of QOL, total social support score and support from friends. In attempters, substitution showed positive correlation with total life events, support from friends, physical health and psychological health and well being. In attempters,

replacement showed positive correlation with all the four domains of QOL, total social support score and support from friends. In attempters, mapping showed positive correlation with all the four domains of QOL except religion, total social support score and support from teachers, parental figures and elders. In attempters, reversal showed positive correlation with all the social support variables except friends and four domains of QOL except environment.

Table 5: Correlation of different domains of QOL with other variables

	Attempters (r)	Controls (r)
Physical health & well-being		
AECOM		
Minimization	0.548*	0.086
Help seeking	0.381*	-0.135
Replacement	0.554*	0.118
Substitution	0.322**	-0.032
Mapping	0.369*	-0.014
Suppression	0.040	-0.276
Social Support		
Total score	0.510*	0.375*
Reliable attachment	0.339**	0.208
Friends	0.314**	0.310**
Teachers, parental figures and elders	0.384*	0.244
Other sources	0.573*	0.319**
Psychological health & well-being		
AECOM		
Minimization	0.341**	0.225
Help seeking	0.371*	-0.128
Replacement	0.466*	0.051
Mapping	0.415*	0.366*
Reversal	0.348*	0.366*
Substitution	0.309**	-0.034
Social support		
Total score	0.386*	0.375*
Reliable attachment	0.365*	0.208
Friends	0.914	0.371*
Teachers, parental figures and elders	0.371*	0.504*
Other sources	0.399*	0.454*
Social relations		
AECOM		
Minimization	0.366*	0.309**
Help seeking	0.344**	-0.171
Replacement	0.462*	0.233
Mapping	0.323**	0.332**
Reversal	0.481*	0.180

	Attempters (r)	Controls (r)
Social Support		
Total score	0.508*	0.416*
Reliable attachment	0.341**	0.250
Friends	0.293*	0.321**
Teachers, parental figures and elders	0.463*	0.394*
Other sources	0.471*	0.276**
Environment		
AECOM		
Minimization	0.303**	0.204
Replacement	0.357**	0.044
Suppression	-0.038	-0.293**
Social Support		
Total score	0.496*	0.424*
Reliable attachment	0.299**	0.241
Friends	0.309**	0.156
Teachers, parental figures and elders	0.416*	0.365*
Other sources	0.580*	0.576*
PSLE		
Personal life events	-0.304**	0.029
Undesirable life events	-0.329**	-0.085
Total life events	-0.325**	-0.054

*- $p < 0.05$; **- $p < 0.01$

Table-5 shows the correlation of different domains of QOL with other variables. In attempters, physical health and well being showed positive correlation with minimization, help-seeking, replacement, substitution, mapping and suppression and all the social support variables except religion. In attempters, psychological health and well being showed positive correlation with minimization, help seeking, replacement, substitution, mapping and reversal and all the social support variables except friends. In attempters, social relations showed positive correlation with minimization, help-seeking, replacement, mapping and reversal and all the social support variables except religion. In attempters, environment showed positive correlation with minimization, replacement, mapping and suppression and all the social support variables except religion. Environment showed negative correlation with total life events, personal life events and undesirable life events in attempters.

All factors which were significant in one to one comparison were entered into a stepwise conditioned regression analysis. The final result showed that lifetime score of desirable life events, higher education and good social support were protective factors against suicide (Table-6).

Table-6: Stepwise conditional logistic regression analysis of risk factors in suicide attempters

Significant Factors	Odds Ratio	Z Value	P Value
Desirable LE	0.97	-2.333	0.012
Mean Education (yrs.)	0.55	-2.894	0.004
Total Social Support Score	0.89	-2.457	0.014

DISCUSSION

Suicidal behaviour can be modified by the quality of life events experienced, social support system, coping patterns and the quality of life. In the present study, total life events and personal life events showed positive association with unhealthy coping strategies such as blame and substitution in attempters. Except for minimization, they failed to adopt healthy coping styles under stressful situations. On the contrary many of the unhealthy coping behaviours such as blame, substitution and suppression had positive correlation in the normal controls. Despite this positive association normals have not attempted suicide under stress.

In studies on suicide risk and coping styles (Kotler et al, 1993; Botsis et al, 1994; Josepho & Plutchik, 1994; Horesh et al, 1996; Amir et al, 1999) suicide risk was correlated negatively with coping styles such as mapping, minimization, reversal and replacement and positively with coping styles such as suppression, blame, substitution and help-seeking. In the present study most of the healthy coping styles such as minimization, help seeking, replacement, mapping and reversal tend to occur more frequently in attempters despite having good social support. Even with such a positive relationship, occurrence of attempt is unexplainable. One reason could probably be that some other unidentified factors may have a role in an individuals' suicidal behaviour.

The higher occurrence of substitution in the presence of good support from friends in attempters raises serious concerns that this maladaptive coping pattern by engaging in tension-reducing activities such as alcohol or drug use occurs more frequently especially in the company of friends. This means that it is not only the availability but also the quality of friends which is important in adopting good coping strategies. Horesh et al (1996) has reported that excessive use of substitution is harmful and it may pre-dispose the individual to suicidal behaviour.

In the attempters undesirable life events were found to occur more frequently when there was no support from reliable attachments such as spouse or family members. This finding indirectly suggests that lack of reliable attachments may be a risk factor for attempting suicide when the person is exposed to adverse life events. Moreover in this study, support from religion was found to produce more desirable life events in normals. Probably religious faith may promote more positive life events thereby protecting individuals from contemplating suicide. Study by Vijayakumar & Rajkumar (1999) supports this finding with low religious beliefs in suicide attempters.

Contrary to the expectation, most of the social support variables had positive correlation with all the four domains of QOL in attempters compared to normals. Availability of good social support and good quality of life may act as a shock absorber, and may help the individual to adopt healthy coping strategies in response to stressful situations. However, despite this positive association the occurrence of suicide attempt indicates that only these factors are not enough in preventing the individual from attempting suicide. This further reiterates complex interaction of other unidentified psychosocial factors in this complex behavioural paradigm.

Earlier studies (Josepho & Plutchik, 1994) have demonstrated positively correlation of interpersonal problems and suppression with suicide risk. In this study unlike attempters, normal group had adopted a negative coping mechanism suppression in the presence of adverse life experiences and poor quality of life. Even then normals have not adopted suicide as a way to solve crisis. As described earlier, this finding also suggests that normals may have other protective mechanism against suicide even if they are exposed to untoward events and poor quality of life.

In this study, more attempters were found to adopt help seeking (asking others for help), a negative coping style even if they had good social support and good QOL which reflects undue dependence of the individual on others at the time of crisis. Amir et al (1999) reported a positive association of help seeking with suicide, reflecting the destructive nature inherent in excessive dependence on the environment.

Blaming others or the 'system' for one's own problems being a maladaptive coping style the occurrence may be increased in the presence adverse life stressors (Kotler et al, 1993; Horesh et al, 1996). As expected blaming was high in attempters when

they had experienced cumulative life events and personal stressors.

Suicidal patients are unable to de-emphasize the importance of a perceived problem or source of stress. They also lack the ability to obtain new information required to resolve stressful life events (Horesh et al, 1996). Mapping a positive coping style showed positive correlation with most of the social support variables and QOL domains in both attempters and normals. This suggests that this coping technique may be increasingly used if there is availability of good social support and good quality of life. However, despite the availability of this buffering system occurrence of suicide attempt necessitates mobilization of other unidentifiable factors to counter the impact of stress.

Most importantly all the four QOL domains such as physical health and well-being, psychological health and well-being, social relations and environment had positive correlation with most of the positive coping styles and social support variables in attempters. However, this relationship was not much stronger in normals. As described above, despite this significant positive mutual interaction occurrence of suicide attempt again indicates under play of some other factors as a leading factor to attempt suicide.

Environment was the only QOL domain which showed negative correlation with total, personal and undesirable life events in attempters. This means that suicidal individuals were feeling unsafe, insecure with poor financial resources and inadequate relaxation and leisure when had experienced adverse life events in the year of attempting suicide. This finding supports the hypothesis that in these individuals there is an inter-relationship between life events and social support.

Coming to the identification of risk factors, stepwise regression analysis showed desirable life events, good education and strong social support as protective factors against suicide. Desirable life events by virtue of its positive nature may prevent the individual from attempting suicide. Educational achievement may also help the individual to appraise the situation (e.g. mapping) and seek alternate solutions. Adequate education is also a prerequisite for problem-solving skills and to deal adequately with stressful situations. Though lower education has not been directly cited as a risk factor, lower socio-economic status probably a forerunner has been repeatedly shown as risk factor for suicide. Moreover lower educational achievement may also invite more adverse life events because of related consequences such as poor

planning, unemployment, poverty, lower social economic status, drug abuse etc. Lower education and subsequent poor social status can also indirectly reduce the social support of vulnerable individuals. Since time immemorial, good social support has been cited as protective factor against suicide. In an integrative path model analysis of the relationship between several variables and suicidal ideations, (Rudd, 1990) found a significant relationship between social support and suicidal ideation.

LIMITATIONS

Main limitation of this study was the small sample size and the selection of a biased control group. However selection of such a control group was purposeful to match the psycho-socio-demographic characteristics with the study group in order to reduce the confounding variables as much as possible. It seems that the quality of individual life events and impact of such events may be unique in attempters and controls. However, one to one comparison of these events requires higher frequency of events, which can be fulfilled with only with larger sample size. Other variables pertaining to suicidal behaviour such as personality profile, proneness to violent behaviour and impulsivity should also be considered to differentiate suicidal individuals from controls.

CONCLUSIONS

This study concludes that suicide attempters adopt many unhealthy coping styles in response to stressful situations, poor social support and poor quality of life. However, this negative interaction was more significant in normal than controls; but they have not adopted suicide as a way to solve crisis. This could be due to availability of other unidentifiable protective factors operating against suicidal behaviour in normal individuals. Among all risk factors desirable life events, good education and strong social support were found to be protective against suicide. Since suicide results from complex interplay of various interrelated factors and the resultant buffering effect, identification and analysis of these factors may be helpful for planning suitable suicide prevention strategies pertaining to our own culture.

REFERENCES

Alperin, M. & Miner, K. (2003) Using Epi Info 2002, A Step-by-Step Guide. Soquel, CA: ToucanEd Publications.

Amir, M., Kaplan, Z., Efroni, R. et al (1999) Suicide risk and coping styles

in posttraumatic stress disorder patients. *Psychotherapeutics and Psychosomatics*, 68, 76 – 81.

- Asha, C.B. (1996) Social Support Scale (Unpublished). University of Calicut.
- Blow, F.C., Brockamn, L. M., Barry, K.L. (2004) Role of alcohol in late-life suicide. *Alcohol Clinical Experience and Research*, 28, 48S-56S.
- Botsis, A.J., Soldatos, C.R., Liossi, A. et al (1994) Suicide and violence risk 1. Relationship to coping styles. *Acta Psychiatrica Scandinavica*, 89, 92 – 96.
- Bryman, A. (2001) *Quantitative Data Analysis with SPSS Release 10 for Windows: A Guide for Social Scientists*. New York: Routledge Publishers.
- Goldberg, D. & Williams, P. (1998) *A user's guide to General Health Questionnaire*. NFER – Nelson: Windsor.
- Horesh, N., Rolnick, T., Dannon, P. et al (1996) Coping styles and suicide risk. *Acta Psychiatrica Scandinavica*, 93, 489 – 493.
- Josepho, S.A. & Plutchik, R. (1994) Stress, coping and suicide risk in psychiatric patients. *Suicide and Life Threatening Behaviour*, 25, 48 – 57.
- Kotler, M., Finkelstein, G., Moracho, A. et al (1993) Correlates of suicide and violence risk in an inpatient population: Coping Styles and social support. *Psychiatric Research*, 47, 281-290.
- Lazarus, R.S. (1974) The Psychology of coping: Issues of research and assessment. In: Coehlo, G.V., Humburg, D.A., Adams, J.E., (Eds.). *Coping and adaptation*. New York: Bami Books.
- Lineham, M.M., Chiles, J.A., Egan, K.L. (1986) Preventing problems of parasuicide versus suicide ideators and Non-suicidal psychiatric patients. *Journal of Consulting and Clinical Psychology*, 54, 880 – 881.
- Nehra, R., Kulhara, P., Verma, S.K. (1996) Development of a scale for assessment of social support: initial try out in Indian settings. *Indian Journal of Social Psychiatry*, 3, 353-359.
- Overholser, J.C., Normen, W.H., Miller, I.W. (1990) Life stress and social supports in depressed inpatients. *Behavioural Medicine*, 16, 125 – 132.
- Plutchik, R. & Conte, H.R. (1989) Measuring emotions and their derivatives: Personality traits, ego defenses, and coping styles. In: Wetzler, S. & Katz, M., (Eds.), *Contemporary approaches to psychological assessment*. New York: Brunner.
- Power, K.G., Cooke, D.J., Brooks, D.N. (1985) Life stress, medical lethality and suicidal intent. *British Journal of Psychiatry*, 147, 655-659.

-
- Rich, C.L., Warsadt, G.M., Nemiroff, R.A. et al (1991) Suicide, stresses and life cycle. *American Journal of Psychiatry*, 148, 524-527.
- Rudd, M.D. (1990) An integrative model of suicidal ideation. *Suicide and Life Threatening Behaviour*, 20, 16 – 30.
- Saxena, S., Carlson, D., Brillington, R. et al (2001) The WHO quality of life assessment instrument (WHOQOL- BREF). The importance of its items for cross-cultural research. *Quality of Life Research*, 10, 711-721.
- Singh, G., Kaur, D., Kaur, H. (1984) Presumptive stressful life event scale (PSLES) – A new stressful life event scale for use in India. *Indian Journal of Psychiatry*, 26, 107-114.
- Vijayakumar, L. & Rajkumar, S. (1999) Are risk factors for suicide universal? A case - control study in India. *Acta Psychiatrica Scandinavica*, 99, 407 – 441.
- W.H.O. (1968) Prevention of suicide. Public health paper No.35, Geneva: WHO.
-
1. **Dr. P. N Suresh Kumar**, MD, DPM, DNB, PhD, (Corresponding Author), Consultant Psychiatrist, Malabar Institute of Medical Sciences, Calicut, Kerala, India. E-mail: drpnuresh@satyam.net.in
 2. **Dr. Biju George**, MD, Assistant Professor, Department of Community medicine, Government Medical College, Calicut, Kerala, India
-

Research Article...

MARITAL COMMITMENT AND MARITAL QUALITY IN SPOUSES OF PATIENTS WITH PSYCHIATRIC DISORDERS

Priya Saxena¹, Anisha Shah²

ABSTRACT

Background: Marital commitment and marital quality are important in the study of clinical population due to the association between mental health and marital relationship. **Aim:** The current study focused on marital commitment and marital quality in spouses of patients with varied psychiatric diagnosis. Their associations with other variables like gender, nature of illness, age, and marital duration were also to be explored. **Material and Method:** The sample consisted of sixty spouses (forty males and twenty females) of patients with depression, schizophrenia, bipolar affective disorder (BPAD), obsessive-compulsive disorder (OCD) and other anxiety disorders. The measures used were a socio-demographic data sheet, the Commitment Inventory, the Marital Quality Scale, and a semi-structured interview schedule. Analysis was done using Pearson's correlation, ANOVA and appropriate post-hoc comparisons. Content analysis was done for the material from the semi-structured interview schedule. **Results:** Spouses of patients with schizophrenia were found to have lowest dedication commitment and poorest marital quality. No gender differences emerged on overall commitment. Wives of male patients reported higher rejection, despair, and dominance as well as overall poorer marital quality than husbands of female patients. **Conclusions:** Psychiatric diagnosis of patients is linked with spouses' marital quality and dedication commitment though not with constraint commitment. Overall commitment does not vary across gender but marital quality does.

Key words: Marital commitment, marital quality, psychiatric disorder, spouses

INTRODUCTION

The relationship between marital status and psychiatric illness is well established. The most consistent finding is that men and women in satisfying marriages are at a lower risk of developing psychological disorder than other segments of population (Halford et al, 1999). On the other hand, studies on long term effects of low-quality marriage has shown that it has detrimental effects on self-esteem, life satisfaction and presence of increased psychological distress relative to a continuously married group and a divorced group (Hawkins & Booth, 2005). Conversely, it has also been shown that a decline in mental health affects negatively the quality of the marital relationship (Booth & Johnson, 1994). Despite the debilitating effects of staying in a low-quality marriage, one of the possible reasons for the persistence to continue in such an alliance could be due to high level of commitment. In their longitudinal study, Amato and Hohmann-Marriott (2007) found that people divorced due to two separate motivations – poor marital quality and low commitment.

Commitment refers to the desire to stay in a close relationship. In this regard, it can be envisaged as a unidimensional

concept, however, the motivations that govern commitment give rise to a multi-dimensional view of commitment. Johnson (1999) conceptualized commitment comprising of three factors – moral commitment (feeling morally obligated to stay in a relationship), personal commitment (wanting to stay in a relationship due to its process-aspects), and structural commitment (constraints in leaving the relationship). Across varied relational contexts, different aspects of commitment play significant roles. For example, in a satisfying relationship, personal and moral commitment could be high enough to maintain the stability of the relationship. However, with deteriorating marital quality, constraint commitment might become more important to keep the relationship stable. Stanley and Markman (1992) developed a scale (Commitment Inventory) to assess commitment in personal relationships. Commitment was considered as two constructs, personal dedication and constraint commitment. Findings suggested that the dedication subscale was more associated with measures of relationship quality whereas the constraint subscale showed a higher association with the relationship stage.

Studies on commitment have primarily focused on non-clinical samples. The lacunae in the literature on commitment in clinical population could stem from the assumption that these marriages would be unstable because of poor marital quality and high marital distress. However, a comparative study by Naaz (1997) on commitment found that the clinical population (comprising of spouses of patients with affective disorder) had higher commitment than a normal group and a divorced group. The clinical group had average marital quality, while the normal group had good marital quality.

In the Indian context, clinical experience with married patients has also shown that the couple does not necessarily get divorced or get separated. Majority of the married patients are generally accompanied by their spouses, particularly when psychiatric illness develops after marriage. On the other hand, a recent trend that is being observed is the increase in the number of referrals for marital therapy, indicating that marital problems are becoming a rising concern among the clinical and non-clinical population. These could be because of the transition of the Indian society from a traditional collectivistic joint family system to a more individualistic nuclear family system (Lauber & Rossler, 2007). This transition in the urban society could be challenging the traditional sacred nature of marriage and family in an individual's life, yet continuing to impose restraint in breaking the moulds of marriage and seeking individual happiness. These co-existing phenomena formed the foundation for the current research to explore marital commitment and marital quality across gender in a clinical sample and to understand the correlates of these variables.

MATERIAL & METHOD

Participants

The sample consisted of 40 male and 20 female Hindi and English speaking participants, in the age group of 20 to 50 years, married to patients with a psychiatric disorder and using in-patient/out-patient psychiatric services in a mental health institute in southern India. However, those with mental retardation or mental and Behavioural disorders due to psychoactive substance use (ICD-10: F10-F19) in either partner, as well as those with a history of separation or divorce, were excluded from the study.

Instruments

1. **Socio-Demographic Data Sheet:** Information was gathered on sex, age, education, occupation

of the participant (spouses of patients), income of both partners, marital duration, number and age of children, type of marriage, type of religion, number of family members living in the place of residence, and history of illness-related variables.

2. **The Commitment Inventory (CI) [Stanley & Markman, 1992]:** This is a 60-item inventory on two aspects of commitment in close relationships—constraint commitment and personal dedication. Constraint commitment has four sub-scales: morality of divorce, availability of partner, social pressure, and structural investment. Personal dedication domain of commitment has six sub-scales: relationship agenda, meta-commitment, couple identity, primacy of relationships, satisfaction with sacrifice, and alternative monitoring. It has a seven-point Likert scale response format and provides subscale scores, as well as total constraint and total dedication scores. Higher scores indicate greater adherence to the subscale. The reliability for total dedication and total constraint domains is reported to be 0.95 and 0.92 respectively (Naaz, 1997).
3. **Marital Quality Scale (MQS) [Shah, 1995]:** This is a multi-dimensional scale available in male and female formats. It has 50 items in a statement form with a four-point rating scale. Twenty-eight items are positively worded and 22 negatively worded. It has 12 factors: understanding, satisfaction, decision-making, trust, role functioning, rejection, despair, discontent, dissolution potential, dominance, affection, and self-disclosure. Scores range from 50 to 200 with higher scores indicative of poor quality of marital life. It has an internal consistency of 0.91 and a test-retest reliability of 0.83 over a six-week interval and has been widely used with Indian couples (Isaac & Shah, 2004; Jyothsna, 2008; Sadana, 2011).
4. A semi-structured interview schedule was also used to understand various aspects of the participant's marital experience. Further English as well as Hindi versions were prepared for all the instruments.

Data collection

The study was cross-sectional in design with purposive sampling. Pilot work on two male spouses and two female spouses familiarized the researcher with the instruments and

the sample. During the main phase of data collection spouses of patients were contacted when they accompanied the patient to the inpatient and/or outpatient services of the institute. They were provided information about the nature of the study, assured about confidentiality, and that they had the freedom to withdraw their consent without any repercussions on the treatment for the patient. A written informed consent form was then obtained from those who were willing to participate in this research. Subsequently, individual administration of the instruments was carried out over one and a half hours. Initial research aim was to obtain equal number of male and female participants. However, persistent difficulties in finding female spouses of patients made the final sample unequal (Male =40, Female=20).

Statistical Analysis

Statistical measures like Mean, Standard Deviation, t test, ANOVA, Pearson's Correlation were used to analyze the data. Method of Least Significant Differences was used for post-hoc comparisons. Chi-Square was used to analyze categorical variables.

RESULTS

Socio-demographic profile

Two-thirds of the participants were males (67%), and above 31 years (31 to 40 years: 43%; 41 to 50 years: 45%). Duration of marriage was: 2 to 9 years (33%), 10 to 17 years (35%), and the remaining were over 18 years (mean duration of marriage=14 years). Eighty percent were from nuclear families, and 56% had income less than Rs 10,000 per month. They were spouses of patients with depression (total = 27%; Men=7, Women=9), schizophrenia (total=22%; men=4, women=9), Bipolar Affective Disorder (BPAD) (total=23 %; men=5, women=9), Obsessive Compulsive Disorder (OCD) (total=13%; men=2, women=6), and other anxiety disorders (total=15 %; men=2, women=7) with 80% of them having illness for 2 to 11 years (Mean=7 years). The two genders were comparable on income, duration of marriage, and duration of illness, but not on age. Male spouses were significantly older than female spouses of patients.

Gender differences on marital commitment and marital quality

Male and female subgroups were compared on marital commitment and marital quality. Gender differences were not found on total commitment as t-value was 1.625 (Female

total mean=300.55, SD=40.46; Male total mean=317.67, SD=37.46). On the two aspects of Commitment Inventory, the t values of 1.278 (constraint commitment) and 1.035 (dedication commitment) were not significant, indicating that the two genders were comparable on constraint commitment and dedication commitment (Female mean constraint commitment=110.80, SD=24.15; Male mean constraint commitment=118.32, SD=20.06; Female mean dedication commitment=191.50, SD=31.92; Male mean dedication commitment=199.35, SD=25.39) Thus, the two genders are comparable on their commitment due to overall constraining factors and their overall dedication to their spouses.

On tests of significance between genders for the ten subscales of Commitment Inventory, t-value of 1.972 ($p<.05$) showed a significant difference on morality of divorce (Female mean=29.30, SD=7.23; Male mean=33.10, SD=6.13). This showed that males considered divorce as more unacceptable than females. However, males and females were similar in their commitment with reference to availability of partner, social pressure, structural investment (constraint commitment), relationship agenda, meta commitment, couple identity, primacy of relationship, satisfaction with sacrifice, and alternative monitoring (dedication commitment).

On the Marital Quality Scale, the female subgroup scored significantly higher on total marital quality ($t = -2.69$; $p<0.01$) as well as on three subscales of MQS- dominance ($t=-11.32$, $p<0.001$), despair ($t=-3.39$, $p<0.01$) and rejection ($t=-2.88$, $p<0.01$) suggesting that wives of male patients reported poorer marital quality and perceived higher dominance, despair and rejection than husbands of female patients.

Chi-squares on frequency data generated from the interviews showed a few significant differences. Husbands reported higher frequency of spouse-related reasons for staying in marriage, fulfillment of physical needs, impact of illness felt on financial domain, and talking to wife even when the partner was angry (4.22, $p<0.01$; 8.35, $p<0.01$; 5.27, $p<0.05$; 10.18, $p<0.01$ respectively), while more number of wives reported their financial needs were fulfilled (32.38, $p<0.001$). Majority of the spouses (60%-70%) rated their distress due to spouses' illness to be more than 50%.

Since the two genders were comparable on commitment, further analyses were carried out combining the male and female subgroups.

Socio-demographic variables, marital commitment and marital quality

Correlations calculated for the total sample of sixty showed that age and marital duration were significantly positively correlated with commitment factors. Age was significantly negatively correlated with marital quality (Table 1).

Table 1: Correlations of socio-demographic variables with marital commitment and marital quality

	Marital quality	Constraint commitment	Dedication commitment
Age	-0.30*	0.33**	0.44**
Marital duration	-0.15	0.49**	0.34**
Duration of illness	0.06	0.15	0.09

* $p < 0.05$ (2-tailed); ** $p < 0.01$ (2-tailed)

Diagnostic subgroups, marital commitment and marital quality

Table 2 shows scores on the Commitment Inventory and the Marital Quality Scale for different diagnostic subgroups. The F ratio of 4.34 was significant at 0.01 level for marital quality, F ratio of 3.85 was significant at 0.01 level for dedication commitment but F ratio of 0.46 was not significant for constraint commitment. Thus, subgroups of spouses of patients with different diagnosis significantly vary on marital quality and dedication commitment but not on constraint commitment.

Table 2: Mean, S.D., and F ratio on Marital Quality Scale, total constraint commitment, total dedication commitment in different diagnostic groups for the total sample.

	Marital Quality		Constraint commitment		Dedication commitment	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Depression	104.62	19.5	116.31	21.19	191.87	24.53
BPAD	97.78	18.6	114.57	24.83	212.53	16.86
Schizophrenia	121.15	23.6	114.53	25.07	179.46	37.77
OCD	96.00	28.3	110.00	13.02	190.62	22.82
Other anxiety disorders	86.11	23.2	123.88	19.87	211.44	15.54
F	4.34**		0.46 (ns)		3.85**	

ns – not significant

** $p < 0.01$

Post-hoc multiple comparisons were done to find out the

groups with least significant differences on marital quality and dedication commitment.

Table 3 shows the Least Significant Differences obtained for marital quality. Significant differences were found between the spouses of patients with schizophrenia and those of all the other disorders indicating poorest marital quality for them compared to all other spouses. Significant differences were also obtained between subgroups of depression and other anxiety disorders showing poor marital quality in the diagnostic group of depression as compared to that of other anxiety disorders.

Table 3: Least Significant Differences obtained between the diagnostic groups on Total MQS for the total sample.

	Diagnosis (I)	Diagnosis (J)	Mean difference (I-J)
Total MQS	Depression	BPAD	6.83
		OCD	8.62
		Schizophrenia	-16.52*
		Other anxiety	18.51*
	BPAD	OCD	1.78
		Schizophrenia	-23.36**
	Schizophrenia	OCD	25.13**
		Other anxiety	35.04***
OCD	Other anxiety	9.88	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 4: Least Significant Differences obtained between the diagnostic groups on dedication commitment for the total sample.

	Diagnosis (I)	Diagnosis (J)	Mean Difference (I-J)
Total dedication commitment	Depression	BPAD	-20.48*
		OCD	1.25
		Schizophrenia	12.41
		Other anxiety	-19.56
	BPAD	OCD	21.73
		Schizophrenia	32.89***
	OCD	Other anxiety	0.91
		Schizophrenia	11.16
	Schizophrenia	Other anxiety	-20.81
		Other anxiety	-31.98**

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 4 shows the Least Significant Differences for dedication commitment. Spouses of patients with schizophrenia differed significantly from those with BPAD and other anxiety disorders group. They show lower dedication commitment than the other two groups. Further, depression subgroup also significantly differed from that of BPAD confirming lower dedication commitment in spouses of patients with depression as compared to those with BPAD in partners. Overall, dedication commitment is high in spouses of patients with BPAD and other anxiety disorders group and lowest for those with schizophrenia in partners.

Table 5: Mean, S.D. and differences on t test between the diagnostic group of schizophrenia and BPAD and diagnostic group of schizophrenia and other anxiety disorders on subscales of dedication commitment.

	BPAD Mean (S.D.)	Schizophrenia Mean (S.D.)	Schizophrenia Mean (S.D.)	Other anxiety Disorders Mean (S.D.)
Relationship Agenda	40.35 (2.76)	35.38 (6.70)	35.38 (6.70)	40.00 (2.39)
		t = 2.48*		t = -2.28*
Meta commitment	34.07 (3.02)	29.69 (6.35)	29.69 (6.35)	21.66 (3.84)
		t = 2.25*		t = -0.09 (ns)
Couple Identity	36.28 (4.15)	27.46 (9.06)	27.46 (9.06)	34.55 (3.87)
		t = 3.21**		t = -2.51*
Primacy of Relationship	33.57 (5.87)	28.46 (7.99)	28.46 (7.99)	35.33 (4.21)
		t = 1.88 [^]		t = -2.61*
Satisfaction with sacrifice	31.42 (6.21)	25.92 (8.67)	25.92 (8.67)	31.77 (3.03)
		t = 1.88 [^]		t = -2.24*
Alternative monitoring	36.78 (7.09)	32.53 (6.69)	32.53 (6.69)	38.11 (4.45)
		t = 1.60		t = -2.34*

ns – not significant; [^] trend; * $p < 0.05$, ** $p < 0.01$

Subscales comparisons were carried out for subgroups of schizophrenia, BPAD and other anxiety disorders. Table 5 shows that spouses of patients with schizophrenia obtained lower scores on relationship agenda, meta commitment, and couple identity than those with BPAD in partner. Similarly, spouses of patients with schizophrenia obtained lower scores on relationship agenda, couple identity, primacy of relationship, satisfaction with sacrifice, and alternative monitoring than with any other anxiety disorder in partner.

Comparison of spouses of patients with depression and those with BPAD on subscales for dedication commitment showed the two groups to be similar except on the subscale of meta commitment.

DISCUSSION

The results are discussed under two broad sub-heads: marital quality and marital commitment.

Marital Quality

Correlates of marital quality

Age was found to have significant negative correlations with total marital quality (Table I). Increase in age is associated with maturity and better adjustment and coping skills. Thus, increase in age would also be associated with better interpersonal skills, due to greater experience, which would be strongly associated with less negative aspects (rejection, despair, discontent, dominance) and more positive aspects (satisfaction) of marital relationship.

Although there was no association of marital duration and duration of illness with total marital quality (Table I), longer duration of marriage was associated with lower despair and lower dissolution potential. Marital duration has been significantly related with adjustment in marriage (Prمود, 1994) which could account for lower degrees of despair. Longer duration of marriage would also be related to increased investments and increased social pressure, which would act as deterrents to dissolving a marital relationship. These are important findings in a clinical sample. These results can be better understood in the current sample as duration of marriage was longer (mean=14 years) relative to the duration of illness (mean=7 years) suggesting that significant number of years have been invested in relationship building. Relatively longer duration of marriage could also mean that husbands and wives of patients were able to connect to the 'non-illness' aspects of their spouses.

Gender difference in marital quality

In the current sample, husbands of female patients were larger in number than wives of male patients. Unavailability of fewer number of wives of male patients could be partly explained by the observation that male patients were either unmarried (due to early onset of illness) or were accompanied by other family members (father, brother, uncle, etc) during out-patient/in-patient visits (probably due to the issue of manageability of the patient/wider support-system available for the male patient).

In the current study, wives of male patients reported poorer marital quality than husbands of female patients. Lavee and Ben-Ari (2004) found that wife's perceptions of marital quality

were related to their husband's level of neuroticism but not vice versa. They also reported that wife's perceptions of marital quality were also associated with their own and their husband's emotional expressiveness, whereas, this was not the case for husbands. In the current context, it is possible that husband's psychiatric illness could be interfering in communication of emotions, leading to perception of poorer marital quality by female spouses. In a study by Sadana (2011) on marital quality and commitment in distressed couples, no significant differences emerged on total marital quality between husbands and wives. Since, her sample comprised of distressed couples, the marital quality scores were equally high for men and women ($M=124.87$; $F=128.80$), relative to the present sample ($M=97.25$; $F=113.55$). The lower mean on MQS in the clinical sample suggests better marital adjustment, despite presence of psychiatric illness in the spouse, relative to the distressed sample.

Marital quality in diagnostic groups

Significantly poor marital quality reported by spouses in the diagnostic group of schizophrenia relative to all the other disorders (depression, BPAD, OCD, and other anxiety disorder), requires closer scrutiny by clinician's to this marital dyad (Table 3). Keltner and Kring (1998), in their review on emotions and psychopathology, reported that the poor adjustment of patients with schizophrenia was related to their diminished emotional expressivity, which not only reflected the lack of communication in a relationship but also evoked negative responses in the spouse.

The lower levels of marital quality in spouses of depressed patients relative to spouses of patients with anxiety disorder could be understood in the context of the negative interactions prevalent in a relationship with a depressed partner (Table 3). Hickey et al, (2005) in a comparative study conducted on an Irish sample of couples with depression, couples with anxiety, and non-symptomatic couples reported that couples with depression had lower quality of life, poor family functioning and lower marital satisfaction. The authors also reported that couples in the depressed group also reported more difficulties in problem-solving in the relationship context compared to the couples in the anxiety group. Thus, the lack of relationship skills could gradually erode the quality of the marriage.

Marital commitment

Correlates of marital commitment

It was found that in the current sample, age was significantly

positively correlated with both dimensions of commitment (Table 1). Similar findings were reported in the recent study by Sadana (2011) on distressed couples. Literature provides support for the association between age and stability of marital interaction. Amato et al (2003), in their study, made an observation that people who marry at young ages, compared with those who marry at older ages, spend less time searching for available partners, have fewer financial resources invested in the marriage and are less mature psychologically, thus their marriages have higher chances of ending in divorce.

The significant positive association between duration of marriage and commitment factors (Table 1) could be understood using Rusbult's model. According to Rusbult's investment model (1983), longer duration of marriage would be associated with poorer alternatives, wider joint social network, which would act as barriers to dissolution of marriage. In the study by Stanley and Markman (1992), the authors reported that though there was an increase in dedication and constraint commitment from dating couples to couples being married with older children, the increase was most significant for constraint commitment due to higher investments in the relationship with longer marital duration. The current sample also shows a stronger correlation between marital duration and constraint commitment. In the study by Sadana (2011), absence of correlation between personal dedication and marital duration suggests, that in the context of a distressed marriage, longer marital duration does not go hand in hand with increase in spouse-related commitment behaviours.

Gender difference in marital commitment

The absence of a significant gender difference in commitment is consistent with literature (Heaton & Albrecht, 1991; Nader et al, 2011). However, in the qualitative interview, husbands of female patients reported higher frequency of commitment-related behaviours than wives of male patients. It is possible that the interview captured concrete behavioural indicators of commitment.

Although, the two genders were comparable on overall commitment, higher number of husbands of female patients reported divorce to be unacceptable relative to wives of male patients. This could be partly accounted for by the poor marital quality reported by female spouses, thus making the idea of divorce more acceptable to them. Interestingly, in the study by Sadana (2011) also, husbands reported greater unacceptability of divorce than wives. This could suggest towards a gradual

fundamental shift in the belief of sanctity of marriage for women, especially in the context of large number of women joining the workforce (Amato & Hohmann-Marriott, 2007).

Marital commitment across diagnostic groups

Lower dedication/total commitment in spouses of patients with schizophrenia than spouses of patients with BPAD and other anxiety disorders (Table 4) can be partially understood in view of poor marital quality in spouses of patients with schizophrenia relative to patients with other disorders. Studies have shown that the nature of marital interaction predicts marital stability (Mathews et al, 1996).

In the current sample, an analysis of specific dimensions of dedication commitment showed that spouses of patients with schizophrenia had lower scores on many relationship dimensions in comparison to spouses of patients with BPAD and anxiety disorders (Table 5). Couple identity (dedication commitment dimension) refers to the degree to which an individual thinks of the relationship as a team, a crucial element of marriage (Stanley & Markman, 1992). It is known that the onset of schizophrenia occurs early (specially in males), which hinders the process of development of a healthy personality. Experiences of living with a patient with schizophrenia have been described as being similar to living with a stranger (Thara et al, 2003). Furthermore, according to literature on expressed emotions, increased criticality is directed towards patients with negative symptoms, because spouses perceive those symptoms to be in control of the patient, whereas positive symptoms (as in BPAD) are attributed to the illness. Increased criticality also increases the chances of relapse, thus maintaining the role impairment. All these aspects could lead to a reduced sense of “we-ness” in the relationship, as well as place increased demands on the spouse to sacrifice his/her needs constantly. Due to low couple identity, a spouse could experience significant burden and distress in taking care of the patient with schizophrenia. Thus, the spouses of patients with schizophrenia reported low personal commitment and overall low commitment along with poor marital quality.

Total dedication commitment was also found to be lower in the spouses of patients with depression relative to the spouses of patients with BPAD. In a review of research examining the association between depression and familial interactions, Marshall and Harper-Jaques (2008) reported that when an adult family member has depression, other members were likely to experience emotional problems and spouses were

more likely to report lower marital satisfaction. The authors also observed that marital distress contributed to ruminations about partner's commitment and depressive symptoms. The fear of abandonment in depressed patients could be partially realistic, as is evident from lower scores on meta commitment in spouses of depressed patients in the current sample. Though, meta commitment is a factor that refers to a general level of commitment and is not dependent on the relationship, it can be influenced by the nature of the relationship. However, these preliminary findings need to be tested in further research studies.

The lack of difference in scores on dedication commitment between schizophrenia and the diagnostic groups of depression and OCD requires deeper engagement. It is possible that the cognitive, emotional and Behavioural aspects of commitment are experienced similarly by spouses of patients with schizophrenia, depression and OCD due to the chronic nature of the illnesses, thereby increasing perceived burden in the marital context.

It is also important to note that total constraint commitment was not found to be significantly different among the diagnostic groups. This indicates that in the clinical sample, spouses' perceived constraints do not depend on the nature of illness. It was observed that the mean score of constraint commitment for the current sample (115.81) was comparable to the mean scores of the clinical (118.60) and normal sample (111.35) obtained by Naaz (1997), suggesting that spouses in the clinical sample perceived similar levels of constraints as spouses in the normal sample. This further corroborates the observation that the nature of illness determines the quality of the relational bond and interpersonal aspects between the couple (dedication commitment), but does not have an impact on constraint commitment. On the other hand, the study by Sadana (2011) shows that when a couple is distressed, it impacts on their constraint commitment (mean=95) as well as personal dedication (mean=170.25).

Limitations

The study had some limitations which restricted the interpretation of the results. The two gender groups were not homogenous in terms of age and life cycle stages. There was unequal distribution between males and females. This restricted interpretation of results. The absence of a control group in the study requires caution in interpreting the results. There was also unequal representation of the diagnostic groups and the sample size was limited.

CONCLUSION

Despite these limitations, the study throws light on the marital quality and commitment issues in spouses of patients with a psychiatric disorder. Gender differences in marital quality as well as poor marital quality and lower stability of the marital bond in spouses of patients with schizophrenia relative to other diagnostic groups warrants attention towards this group. The long-term effects of low quality marriage have been elucidated earlier (Hawkins & Booth, 2005). Couples with poor marital quality were less happy than those individuals who had divorced. The relatively low levels of divorce rate in our clinical set-up does point towards high levels of commitment and stability of marriage in the clinical population. However, the presence of low marital quality in different diagnostic groups requires further examination of distress in these couples, because with the erosion of marital quality, distress levels could rise, tipping the balance in favor of divorce. Thus, a sustained engagement is required with these couples (low marital quality-high distress) to improve their interpersonal interactions, which would be reflected in lower rates of relapse and better quality of life in patients as well as spouses. Further, exploration of protective factors towards marital stability in the clinical sample would greatly enhance our understanding of this unique group.

REFERENCES

- Amato, P.R. & Hohmann-Marriott, B. (2007) A comparison of high- and low-distress marriages that end in divorce. *Journal of Marriage and Family*, 69, 621-638.
- Amato, P.R., Johnson, D.R., Booth, A., et al (2003) Continuity and change in marital quality between 1980 and 2000. *Journal of Marriage and Family*, 65, 1-22.
- Booth, A., & Johnson, D. (1994) Declining health and marital quality. *Journal of Marriage and the Family*, 56, 218-223.
- Halford, B.K., Bouma, R., Kelly, A., et al (1999) Individual psychopathology and marital distress: Analyzing the associations and implications for therapy. *Behaviour Modification*, 23, 179-216.
- Hawkins, D.N. & Booth, A. (2005) Unhappily ever after: Effects of long-term, low-quality marriages on well-being. *Social Forces*, 84, 451-471.
- Heaton, T.B. & Albrecht, S.L. (1991) Stable unhappy marriages. *Journal of Marriage and Family*, 53, 747-758.
- Hickey, D., Carr, A., Dooley, B., et al (2005) Family and marital profiles of couples in which one partner has depression or anxiety. *Journal of Marriage and Family Therapy*, 31, 171-182.
- Isaac, R. & Shah, A. (2004) Sex roles and marital adjustment in Indian couples. *International Journal of Social Psychiatry*, 50, 129-141.
- Johnson, M.P. (1999) Personal, moral, and structural commitment to relationships: Experiences of choice and constraint. In J.M. Adams & W.H. Jones (Eds.), *Handbook of Interpersonal Commitment and Relationship Stability*. pp.73-87. New York: Plenum Press.
- Jyothsna, C.P. (2008) Dimensions of marital quality in married individuals. Unpublished dissertation submitted to NIMHANS, Bangalore.
- Keltner, D. & Kring, A.M. (1998) Emotion, social function, and psychopathology. *Review of General Psychology*, 2, 320-342.
- Lauber, C. & Rossler, W. (2007) Stigma towards people with mental illness in developing countries in Asia. *International Review of Psychiatry*, 19, 157-178.
- Lavee, Y. & Ben-Ari, A. (2004) Emotional expressiveness and neuroticism: Do they predict marital quality? *Journal of Family Psychology*, 8, 620-627.
- Marshall, A.J. & Harper-Jaques S. (2008) Depression and family relationships: Ideas for healing. *Journal of Family Nursing*, 14, 56-73.
- Mathews, L.K., Wickrama, A.S., Rand, D.C. (1996) Predicting marital instability from spouse and observer reports of marital interaction. *Journal of Marriage and Family*, 58, 641-655.
- Naaz, A.A. (1997) Personal commitment and marital relationship in clinical and non-clinical groups. Unpublished dissertation submitted to NIMHANS, Bangalore.
- Nader, K., Yoosef, K., Bahman, B. (2011) The relationship of mental health dimensions and guilt feelings with marital commitment in married people. *Journal of Family Counselling*, 1, 243-256.
- Pramod, K. (1994) Gender difference, wife's employment and marital duration as factors in marital adjustment. *Indian Journal of Clinical Psychology*, 21, 23-26.
- Rusbult, C.E. (1983) A Longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology*, 45, 101-117.
- Sadana, D. (2011) Marital quality and commitment in distressed couples. Unpublished dissertation submitted to NIMHANS, Bangalore.
- Shah, A. (1995) Clinical validity of marital quality scale. *NIMHANS Journal*, 13, 23-31.
- Stanley, S.M. & Markman, H.J. (1992) Assessing commitment in personal relationships. *Journal of Marriage and Family*, 54, 595-608.
- Thara, R., Kamath, S., Kumar, S. (2003) Women with schizophrenia and broken marriages – doubly disadvantaged? Part II: Family perspective. *International Journal of Social Psychiatry*, 49, 233-240.

-
1. **Dr. Priya Saxena**, M.Phil, Ph.D., Dept. of Clinical Psychology, NIMHANS, Bangalore (corresponding author), #24, 3rd Main, K.S.R.T.C. Layout, J.P. Nagar 2nd phase, Bangalore-560078; Email: priyasaxena175@yahoo.com
 2. **Dr. Anisha Shah**, Professor & Head, Dept. of Clinical Psychology, NIMHANS, Bangalore.
-

Brief Communication...

A STUDY ON EFFECTIVENESS OF STRUCTURED ACTIVITY SCHEDULE ON NEGATIVE SYMPTOM OF PATIENTS WITH SCHIZOPHRENIA

Arunjyoti Baruah¹, K. Reddemma², Nurnahar Ahmed³, Srinivasan A⁴

ABSTRACT

Background: Schizophrenia tends to run a chronic course and have a devastating impact limiting the social and personal life activities. The negative symptoms of schizophrenia predict a poor prognosis for the patients. Lack of motivation and initiation is a common feature in patients with negative symptoms. Structuring the daily activities and persuasion to initiate the activities might be useful in changing this behaviour. Very little information is available on impact of structured activity schedule for patients with schizophrenia. Review of literature revealed that most of the interventional studies on negative symptoms focused on social skill training and cognitive therapy. **Method:** Research design of the study was quasi experimental taking two groups (control and experimental) in a pre-test and post-test design. Setting was LGB Regional Institute of Mental Health, Tezpur. Sample consisted of 100 patients with schizophrenia. Purposive sampling technique was used for recruitment. Structured Socio-demographic performa and Scale for Assessment of Negative symptoms were used. Structured activity schedule was used only on the experimental group. **Result:** A significant difference in pre and post test mean scores in experimental group ($t=4.71$) was found. Significant statistical difference in post-test mean scores of experimental and control group has indicated the effectiveness of the structured activity schedule on negative symptoms ($t=2.5$). **Conclusion:** This study shows that structured activity schedule was effective in reduction of negative symptoms in schizophrenia patients.

Key Words: Schizophrenia, negative symptoms, structured activity schedule

INTRODUCTION

Schizophrenia tends to run a chronic course and have a devastating impact limiting the social and personal life activities. The negative symptoms of schizophrenia predict poor prognosis for the patients. The most frequently observed negative symptoms in patient with schizophrenia are social withdrawal, emotional withdrawal, blunted affect, poor rapport, and poor verbal fluency (Bobes et al, 2010). The negative symptoms have substantial influence on social outcome that exceed that of social abilities (De Ore et al, 2009). Schizophrenia is the fourth leading cause of disability throughout the world (Murry & Lopez, 2008). The best effect in treating negative symptom is achieved by optimizing the dose of medication and complementing it with psychosocial therapies (Makinen et al, 2008). Study by Barman (2010) showed that nursing care protocols on communication and socialization skills were effective in improvement of negative symptoms like communication and socialization. The cognitive behavioural social skill training helps people with chronic schizophrenia to learn and maintain new skills with improvement in self-reported functioning (Granholm et al, 2007). Social skill training is useful

in addressing functional impairments with social skills or activities of daily living. The key elements of this intervention include behaviourally based structured instruction, modeling, corrective feedback and contingent social reinforcement. Lack of motivation and initiation is a common feature in patients with negative symptoms. Structuring the daily activities and persuasion to initiate the activities might be useful in changing this behaviour.

Varied level of psychiatric disability may be presented by patients with schizophrenia patients such as personal disability, social withdrawal and failure in occupational functioning. Specific interventions and outcome in minimizing disability related to negative symptoms are major concerns in psychiatry. Little information is available on impact of structured activity schedule for patient with schizophrenia. A study analyzed and updated the research data on Integrated Psychological Therapy. Which is a group therapy for schizophrenia patients, combining neuro-cognitive and social cognitive interventions with social skills and problem solving approaches. This study quantitatively reviewed the results of 36 studies including

1601 schizophrenia patients through meta-analysis. Results showed that schizophrenia patients undergoing Integrated Psychological Therapy showed significant improvement in the areas of neuro-cognition, social cognition, psycho-social functioning and negative symptoms (Roder et al, 2011).

A study on efficacy of psychosocial intervention on patients with schizophrenia found that patients with schizophrenia due course of time manifest a number of behavioural and cognitive change which cause impairments in the functioning of the individual's daily routine life resulting in less occupational efficacy, interpersonal deficits and in ability to take up the responsibility. The findings suggest that the marked differences have been found in both groups in all the areas of functioning i.e. personal, social, occupational, physical and general (Shweta et al, 2010).

Deficits in motivation and other negative symptoms in schizophrenia have impact on disability. 243 older patients with schizophrenia on Neuro-psychological (NP) battery, the Positive and Negative Syndrome Scale (PANSS), by their case managers for real world social and community activities, and they were also assessed for social competence and functional abilities using

- i. The Social Skills Performance Assessment (SSPA)
- ii. Everyday Living Skills
- iii. Performance based Skill Assessment

Scores on the SSPA and PANSS negative subscale were accounted for variance in social outcomes, but NP impairment was not an independent predictor. Results showed that negative symptoms appear to have a substantial influence on social outcome that exceed to that of the social abilities. In contrast, community activities were not greatly influenced by negative symptoms. The study suggested that if negative symptoms are managed then improvement in other social outcomes can be expected (De Ore et al, 2009). Review of literature revealed that most of the interventional studies on negative symptoms focused on social skill training and cognitive therapy. The present study has included supervised self-care activities, exercise and social skill training in structuring the activity schedule.

MATERIAL AND METHODS

Aim of the study was to find out the effectiveness of structured activity schedule for the patient with schizophrenia with negative symptoms.

Study design

A quasi experimental study design was used in this study.

Population and sample

Population consist patients with schizophrenia admitted to Lokapriya Gopinath Bordoloi Regional Institute of Mental Health, Tezpur which is a tertiary care mental health setup. All the patients had more than one year of illness duration. 100 patients were included for data collection, 50 each in experimental group and control group.

Tools

To collect the socio-demographic data, a structured socio-demographic datasheet and to assess the negative symptoms the Scale for Assessment of Negative Symptoms (SANS) were used. The SANS is a 25 item scale to evaluate the domains of the negative symptoms complex, including alogia, affective flattening, avolition-apathy, anhedonia-asociality and attention (Andreasen, 1983). Activity schedule was prepared for the whole day and supervised to follow the same schedule for one month and followed by the post assessment. Content of the activity schedule included supervised self care activities, regular exercise for 15 minutes followed by bathing grooming and prayer, routine medication intake monitoring, and thrice weekly demonstration/rehearsal of social skill intervention. Component of social skill intervention basically covered the communication and socialization skills. Weekly one session of group interaction was carried out for the patients. Validity of the activity schedule along with the intervention was done through experts in the mental health field.

Procedure: Schizophrenia patients with negative symptoms were administered the tools on the following week of admission. Data was collected after obtaining permission from ethical committee during the second half of the year 2010. The patients in control group (50) were followed up on routine medical and nursing care for four weeks and then the tool was administered again. Fifty patients in experimental group were provided with structured activity schedule apart from routine care and treatment.

Ethical Consideration

1. Informed consent was obtained from the participants.
2. Prior permission and ethical clearance was obtained from the authorities.
3. Confidentiality and anonymity of the study subjects was maintained.

RESULTS

The collected data were compiled in a master data sheet and analysis done by using SPSS 9th version. Frequency and percentage were calculated for the socio-demographic profile of the subjects.

Table 1: Frequency and percentage of socio-demographic data of control and experimental group

Variables	Groups			
	Control		Experimental	
	N	%	N	%
Age				
20-29years	16	32	22	44
30-39years	23	46	21	42
40-50years	11	22	7	14
Gender				
Male	38	76	37	74
Female	12	24	13	26
Education				
Primary	8	16	4	8
Middle	19	38	19	38
HSLC	10	20	13	26
HSSLC	9	18	9	18
Graduation	4	8	5	10
Occupation				
Cultivation	15	30	10	20
Service	6	12	0	0
Business	3	6	2	4
Others	2	4	6	12
Nil	24	48	32	64
Religion				
Hindu	37	74	38	76
Muslim	8	16	10	20
Christian	5	10	2	4
Duration of Illness				
1-2years	10	20	13	26
2-3years	3	6	4	8
3-4years	8	16	5	10
>4years	29	58	28	56
Admission				
First	30	60	36	72
Second	10	20	6	12
Third	5	10	4	8
Fourth	5	10	4	8

It is observed from table 1 that majority i.e. 46% of the subjects in the control group were in the age range of 30-39 years whereas, in experimental group majority 44% were of 20-29 yrs of age group. In both control and experimental group majority were male. In both the groups 38% were having education up to middle school. Maximum subjects in control and experimental group were unemployed. The majority i.e. 74% and 76%

respectively in control and experimental were Hindus. The maximum number (58% and 56% in control and experimental group respectively) of patient with negative symptoms were found to be suffering from illness for more than four years. Finally, majority of the patients (60% in control and 72% in experimental) were admitted for the first time to the hospital.

Table 2: Pre and post test scores in control group on SANS

Control Group	Mean	SD	't' df=49	p
Pretest	89.6	10.3	1.0	0.30
Posttest	87.8	7.2		

$p=NS$

In table 2, it is seen that no difference in negative symptoms at pre and post-test levels as reflected by SANS scores in the control group.

Table 3: Pre and post test scores in experimental group on SANS

Experimental Group	Mean	SD	't' df=49	p
Pretest	92.0	10.4	4.71	0.00**
Posttest	82.9	9.0		

** $P<0.00$

Table 3 indicates significant difference in the pre and post test score of negative symptoms in experimental group as depicted by SANS scores. There is significant difference in the post test negative symptoms scores of patient with schizophrenia in control and experimental group with experimental group having lesser score on SANS as shown in table 4.

Table 4: Post test scores of control and experimental groups

Groups	Mean±SD	't' df=98	p
Control	87.4±8.9	2.5	0.014*
Experimental	82.9±9.0		

* $p<0.05$

DISCUSSION

The study intended to find out the effectiveness of structured activity schedule on negative symptoms in patients with schizophrenia. Study reveals that around 20-40% of schizophrenia patients have persisting negative symptoms. No significant difference at pretest level between the groups indicates similar nature of psychopathology in the groups.

There is significant difference in the pre-test and post test negative symptom scores in experimental group ($t=4.71$, $df=49$; $P=0.00$), and also significant difference in the post-test score of both control and experimental group ($t=2.5$, $df 98$; $P=0.014$). These values indicate that after implementing the structured activity schedule in experimental group, the patient with schizophrenia has improvement in the level of negative symptoms. Study by McGurk et al (2005) has found efficacy of implementing the cognitive skill training programme in inpatient setting.

From the above inferential statistics, it is seen that there is no significant change of negative symptoms of patient with schizophrenia in the control group. Whereas in the experimental group, the negative symptoms improved significantly following activity schedule and also post test score of negative symptoms were significantly different in both control and experimental group. The study results support the findings of study conducted by Roder et al (2011) where they have found that integrated psychological therapy showed significant improvement in psychosocial functioning and negative symptoms. However, during the limited search of literature no studies have been found on structured activity schedule combining various psychosocial approaches in support of the present findings.

CONCLUSION

Negative symptoms and limited functional recovery are major challenges in the care of patients with schizophrenia. Present study has indicated the effectiveness of structured activity schedule with combined psychosocial interventions. Implications of the findings may be incorporated in regular care practice of patients with schizophrenia patients.

REFERENCES

- Andreasen, N.C. (1983) *The Scale for the Assessment of Negative Symptoms (SANS)*. Iowa City, Iowa: The University of Iowa.
- Barman, H. (2010) Effectiveness of nursing care protocols on communication and socialization skills of patients with schizophrenia in-patients at L.G.B.R.I.M.H. Tezpur. Unpublished Masters of Nursing (MSc.) dissertation. Tezpur: Guwahati University.
- Bobes, J., Arango C, Gareia-Gareia M., et al (2010) Prevalence of negative symptoms in outpatients with schizophrenia spectrum disorders treated with antipsychotics in routine clinical practice: in ding from the CLAMORS study. *Journal of Clinical Psychiatry*, 71, 280-286.
- De Oreo, E.H., Harvey P.D., Leifker F.R., et al (2009) Negative symptoms and motivational deficits as predictors of disability. *Schizophrenia Bulletin*, 35 (Suppl), 307.
- Granholm, E., McQuaid, J.R., McClure, F.S., et al (2007) Randomized control trial of Cognitive Behavioural Social Skill Training for Older People with Schizophrenia: 12 month follow up. *Journal of Clinical Psychiatry*, 68, 730-737.
- Makinen. J., Miettunen. J., Isohanni. M., et al (2008) Negative symptoms in schizophrenia: A review. *Nordic Journal of Psychiatry*, 62, 334-341.
- Mc Gurk, S., Lindenmayer, J.P., Khan, A., et al (2005) Cognitive skills training in inpatients with schizophrenia: Abstracts of the XX International Congress on Schizophrenia Research. *Schizophrenia Bulletin*, 31, 1121-1123.
- Murray, C.J. & Lopez A.D., (1997) Global mortality, disability, and the contribution of risk factors: Global Burden of Disease Study. *Lancet*, 349, 1436-1442.
- Roder, V., Mueller, D.R., Schmidt, S.J., et al (2011) Effectiveness of integrated psychological therapy (IPT) for schizophrenia patients: A research update. *Schizophrenia Bulletin*, 37, 71-79.
- Shweta, Senger, K.S., Singh, A.R., et al (2010) Efficacy of Psychosocial Intervention on Patients with Schizophrenia. *Eastern Journal of Psychiatry*, 13, 34-38.

-
1. **Ms. Arunjyoti Baruah**, Associate Professor Psychiatric Nursing, LGBRIMH, Tezpur & Ph. D. Scholar in Nursing
 2. **Dr. K. Reddemma**, Professor & Head, Dept. of Nursing, NIMHANS, Bangalore
 3. **N. Ahmed**, Assistant Professor I/C psychiatric Nursing, LGBRIMH, Tezpur
 4. **Srinivasan A**, M. Sc. Nursing student, LGBRIMH, Tezpur
-

Brief Communication...

SOCIO-DEMOGRAPHIC AND CLINICAL PROFILE OF KORO CASES: REPORT FROM A VILLAGE OF WEST BENGAL

Arabinda Brahma¹

ABSTRACT

Background: Koro (genital retraction syndrome) is a culture-bound depersonalization syndrome. In males, the cardinal symptom is the perception of retraction or shrinkage of penis with acute fear of impending death or loss of sexual power. **Method:** The study examines the sociodemographic and clinical profile of 10 Koro affected cases of a village in West Bengal during an epidemic outbreak. **Results:** All cases were males. 60% were single and 70% had low level of education. 30% of them were students, 30% agricultural laborers and 20% unemployed. Dhat syndrome and masturbatory guilt were common past morbidities. 80% of the cases had perception of 'retraction of penis' and 50% complained of 'fear of impending death'. **Conclusions:** Psychodynamics of Koro is a long-standing debate in psychiatry. Further research is required to reveal more about the socio-cultural and ethnomedical beliefs in this regard.

Key Words: *Koro, culture-bound syndrome, koro epidemic*

INTRODUCTION

Koro is a culture bound psychogenic reactive state. The first report of Koro was published in a Western medical journal in 1895 (Chowdhury & Brahma, 2004). The original oriental culture-linked Koro is referred to as 'genital retraction syndrome' in modern literature. The diagnostic nosology of Koro is an area of debate in clinical psychiatry for a longtime (Chowdhury, 1990). The primary cultural ethological focus of Koro, now points towards the concept of disordered body-image perception (Goetz & Price, 1995). Global literature on Koro reveals that at least nine large epidemics have taken place in Singapore, Thailand, Indonesia, India and China (Chowdhury, 1994). Various studies have highlighted upon the geopolitical stress and cultural metamorphosis (Jilek & Jilek-Aall, 1985) and, traditional construct of sexuality on the ethnic background.

The West Bengal Koro Epidemic

As per a report published in a local bengali newspaper (Bartaman), a large Koro epidemic occurred in the North Bengal region. Within a month, it spread to the South Bengal region including two cosmopolitan cities viz. Kolkata and Howrah. Mass panic (popularly known as 'Disco') in North and South Bengal was reported from several places especially

from remote villages. The panicked were advised by the local faith-healers to either sit in the ponds and rivers for long hours or ask family members to pour water onto them for cure. Some of them had offered worships at various temples and had put on a sacred thread around waist. Some magico-religious healers advised the affected persons to wear garlands made of seeds of pumpkin. Painting lime on forehead, cheek and ear lobules was advised to serve as cure to the sufferers and as prevention to the non-affected family members.

The present study examines the demographic and clinical profile of 10 male Koro cases from a village in the North 24 Parganas district of West Bengal.

MATERIAL AND METHOD

Sample consisted of 10 male cases with Koro attack from the Dighari village situated near Chandpara in the North 24 Parganas district of West Bengal, where an outbreak of Koro, attributed to an infectious life-threatening disease, occurred on 24 October 2010. Seven of them were interviewed in a private clinic and rest three during a community visit. A register was maintained for each patient where the basic identification data (age, sex, marital status, religion, education and occupation) was recorded. All the cases underwent a detailed clinical

interview during the Koro outbreak. For children, detailed interview of the parents and concerned family members was done.

RESULTS

Sociodemographic characteristics

The mean age (\pm SD) of the sample was 25.4 ± 16.26 years (range 6-53). Table 1 shows the sociodemographic characteristics of the sample. All the cases were male and Hindu by religion. 60% of them were single and 40% were married. 70% had low level of education (illiterate or up to primary educated). With regard to occupation, 30% were students, 30% agricultural laborers, 10% farmers, 10% unskilled laborers and 20% reported no occupation. The most frequent past morbidity was dhat Syndrome (30%) followed by masturbatory guilt (20%), somatization (20%) and impotency (10%). In one case, two morbidities were reported, viz. somatization and dhat syndrome.

Table 1: Socio-Demographic Characteristics of Koro Affected Cases

N= 10	No. of Cases (n)	% of Cases
Gender		
Male	10	100
Marital Status		
Married	4	40.0
Single	6	60.0
Religion		
Hindu	10	100
Education		
Not Literate	1	10.0
Pre-Primary	3	30.0
Primary	3	30.0
Secondary	1	10.0
Higher Secondary	2	20.0
Occupation		
Farmer	1	10.0
Agricultural labor	3	30.0
Unskilled labor	1	10.0
Student	3	30.0
Unemployed	2	20.0

Clinical characteristics

Acute onset was the most common presentation (70%). The remaining cases had a subacute onset with a short (3

to 6 hours) premonitory period. Table 2 shows the clinical symptoms of the Koro affected cases. Among the penile symptoms, 'retraction of penis' was the most common complaint (80%). 20% reported shrinkage of penis. 50% of the cases also complained penile pain and 40% complete loss of penile sensation. 20% of the cases had discomfort on urination. Among the physical symptoms, 'burning sensation over whole body' was the most common complaint (90%), followed by abdominal pain (80%). 'Fear of impending death' was found to be the commonest mental symptoms (50%) with Koro in the sample, followed by 'fear of penile dissolution' (30%) and 'fear of impending madness' (20%).

Table 2: Clinical Characteristics of Koro Affected Cases

SYMPTOMS	No. of Cases (n)	% of Cases
Genital Symptoms:		
Retraction of penis	8	80.0
Shrinkage of penis	2	20.0
Complete loss of penile sensation	4	40.0
Penile pain	5	50.0
Discomfort on urination	2	20.0
Physical Symptoms:		
Burning sensation over whole body	9	90.0
Abdominal pain	8	80.0
Tremulousness of limbs	2	20.0
Dizziness	2	20.0
Fainting	3	30.0
Nausea	3	30.0
Mental Symptoms:		
Fear of impending death	5	50.0
Fear of impending madness	2	20.0
Fear of penile dissolution	3	30.0

Course

All cases recovered within a day or two. No cases relapsed and none complained of any residual morbidity from Koro, except for one case (a 22 year old male), who experienced severe abdominal pain and fainting attacks following his Koro episode. He was admitted to a hospital and eventually recovered.

DISCUSSION

This study highlights several interesting findings on Koro. In the present study, a 6 year old and a 7 year old boy had Koro attack. Earlier too, penile retraction or shrinkage was reported in toddlers or very young children during epidemics of Koro (Rubin, 1982, Dutta et al, 1982). The symptoms however,

were reported from their Koro-apprehensive fathers. Should then a diagnosis of Koro by proxy (like factitious disorder by proxy) be made?

'Retraction of penis' and 'shrinkage of penis' were two common genital symptoms of the Koro affected cases. The cognition behind penile retraction is related to ethno-cultural beliefs as well as dramatic expression of acute anxiety and fear of impending death. In case of penile shrinkage, the core psychopathology may be a localized organ dysmorphic component of obsession, hypochondriasis, impotency, simple anxiety neurosis or depression (Haslam, 1980; Damodaran & Nizamie, 1993). Though both these complaints possess some characterological differences (Chowdhury, 1996), most of the studies reported that the Koro patients experience both types of symptoms (Ngui, 1969; Chowdhury, 1992). Predominance of penile retraction symptom as found in the present study may be linked with cultural beliefs of diverse nature especially during an epidemic outbreak (Prince, 1992; Kirmayer, 1992).

The present study found some other genital symptoms, viz. loss of penile sensation, penile pain and discomfort on urination. This finding corroborates with the earlier research on Koro (Yap, 1965; Suwanlert & Coates, 1978; Joseph, 1986).

The present study showed that the 'fear of impending death' is the most prevalent (50%) content of Koro anxiety followed by 'fear of penile dissolution' (30%) and 'fear of impending madness (20%).' 'Fear of impending death' has been considered the primary ideational component of Koro anxiety in males (Jilek, 1986; Chowdhury, 1992). Fear of death is not only a psychopathological symptom of anxiety; it highlights a deep cultural dimension as well. Penis is regarded as the executive organ of masculinity during sexual intercourse. So loss of one's penis may be the harbinger of death (Rawson & Legeza, 1973). Penile dissolution resulting in loss of sexual power is another common ideational component of Koro anxiety (Sajjad, 1991). 'Fear of impending madness' is probably related to the socio-cultural concept of madness, which views it as a result of sinful misdeed or misfortune. This magico-religious attribution of somatization has a cultural underpinning with wide social acceptance especially in non-western societies (Kirmayer, 1992).

Past morbidity was noted in almost two-third (70%) of cases. Dhat syndrome, masturbatory guilt or impotency is very closely associated with masculine psychosexuality. These are often

linked with lowered self-esteem, guilt feelings, anxiety and a sense of loss of masculine identity. In the socio-economic and cultural context of India, these pre-Koro problems may have psychodynamic significance and pose great stress onto the individual who eventually develops Koro symptoms. These Koro symptoms probably reflect an attention-seeking behaviour directed toward a significant person (spouse) or the community in general (Chowdhury, 1994). Earlier researches have also reported the correlation between Koro and psychosexual guilt (Yap, 1965; Chowdhury, 1994) and somatization (Edwards, 1984).

CONCLUSION

Psychodynamics of Koro is a long-standing debate in psychiatry. Future research should reveal more about the pathoperception of organ retraction/shrinkage of male Koro cases and the consequent psychopathological expression of cultural or ethnomedical beliefs during an epidemic.

REFERENCES

- Chowdhury, A.N. (1990) Diagnostic nosology of Koro. *Journal of Personality and Clinical Studies*, 6, 207-209.
- Chowdhury, A.N. (1992) Clinical analysis of 101 Koro cases. *Indian Journal of Social Psychiatry*, 8, 67-70.
- Chowdhury, A.N. (1994) Koro in females: an analysis of 48 cases. *Transcultural Psychiatric Research Review*, 31, 369-380.
- Chowdhury, A.N. (1996) The definition and classification of Koro. *Culture, Medicine and Psychiatry*, 20, 41-65.
- Chowdhury, A.N. & Brahma, A. (2004) Chronic Koro. *Eastern Journal of Psychiatry*, 1&2, 57-59.
- Damodaran, S.S. & Nizamie, S.H. (1993) "Incomplete Koro" – a forerunner for mood disorders: Two case reports. *Indian Journal of Psychiatry*, 35, 60-62.
- Dutta, D., Phookan, H.R., Das, P.D. (1982) The Koro epidemic in lower Assam. *Indian Journal of Psychiatry*, 24, 370-374.
- Edwards, J.W. (1984) Koro: a genital retraction syndrome of insular Southeast Asia: a critical review. *Culture, Medicine and Psychiatry*, 8, 1-24.
- Goetz, K.L. & Price, T.R.P. (1995) A case of Koro: treatment response and implications for diagnostic classification. *Journal of Nervous and Mental Disease*, 182, 590.
- Haslam, M.T. (1980) *Medicine and Orient: Shen –k'uei syndrome*. *British Journal of Sexual Medicine*, 12, 31-36.

- Jilek, W.G. (1986) Epidemics of "genital shrinking" (Koro): historical review and report of a recent outbreak in South China. *Curare*, 9, 269-282.
- Jilek, W.G. & Jilek-Aall, L. (1985) The metamorphosis of "Culture Bound" syndromes. *Social Science and Medicine*, 21, 205-210.
- Joseph, A.B. (1986) Koro: Computed Tomography and Brain Electrical Activity Mapping in two patients. *Journal of Clinical Psychiatry*, 47, 430-432.
- Kirmayer, L.J. (1992) From the witches' hammer to the Oedipus complex: castration anxiety in Western society. *Transcultural Psychiatric Research Review*, 29, 133-158.
- Ngui, P.W. (1969) The Koro epidemic in Singapore. *Australian and New Zealand Journal of Psychiatry*, 3, 263-266.
- Prince, R. (1992) Koro and Fox spirit on Hainan Island (China). *Transcultural Psychiatric Research Review*, 29, 119-132.
- Rawson, P. & Legeza, L. (1973) *Tao: the Chinese philosophy of change*. London: Thames & Hudson.
- Rubin, R.T. (1982) Koro (Shook Yang) – a culture bound psychogenic syndrome. In: Friedmann, C.T.H. & Faguet, R.A. (Eds.), *Extraordinary disorders of human behaviour*, pp. 155-172. New York: Plenum Press.
- Sajjad, S.H.A. (1991) Classification of Koro. *American Journal of Psychiatry*, 148, 1279.
- Suwanlert, S. & Coates, D. (1978) Epidemic Koro in Thailand: clinical and social aspects. *Transcultural Psychiatric Research Review*, 16, 64-66.
- Yap, P.M. (1965) Koro: a culture-bound depersonalization syndrome. *British Journal of Psychiatry*, 111, 43-49.
-
1. **Dr. Arabinda Brahma**, Consultant Psychiatrist, UNM Clinic & Research Institute, Salt Lake, Kolkata 700098 & Lecturer, Indian Psycho-Analytical Society, Kolkata, E-mail: drarabindabrahma04@yahoo.com
-

Movie Review...

BOL

Roshan V Khanande¹, S Haque Nizamie²

INTRODUCTION

Pakistan, as we see currently, is a country plagued with terrorism, corruption, economic and political instability. A country where individual rights are at the mercy of religious fanatics, the right to speech is merely a constitutional formality than a societal reality. Movies, which are regarded as a mirror of the society, also haven't been able to make a mark, blame it on the dearth of talent or paucity of innovative ideas. From such a land comes the movie 'Bol' which deals with the pathetic fate of human existence in a conservative Muslim society and the dire consequences of raising your voice against the orthodox system. This movie casts mumaima Malick, Manzar Sehbai, Iman Ali, Shafqat Cheema, Atif Aslam and others and is directed by Shoaib Mansoor, who shot to fame with his directorial debut 'Khuda kay Liye (2007)', a movie which gained accolades from critics and audience across the globe, and bagged several awards including one at the 31st Cairo International Film Festival, Roberto Rossellini Award (Italian film industry), Fukuoka Audience Award (Japan) etc.

The movie is a retrospective narration of the sad tale of Zainub (Mumaima Malick), the eldest of the surviving 6 daughters of a patriarch, Hakim Saab (Manzar Sehbai), whose 14 attempts to produce a male child ultimately yields a eunuch, Saifi (Amr Kashmiri). He is seen as a curse to the family and is not only deprived of basic needs but also of much needed love and affection from his father who goes on to kill him after he is raped by his colleagues. The conflict between the protagonists, father and daughter worsens as she is married to a tyrannical husband who's physical and mental torture forces her to rather stay with her parents and her six unmarried sisters, already reeling under extreme poverty and misery. Hakim Saab, an ultra conservative orthodox male, cannot withstand the religious yet ideological views of a rebellious daughter and keeps barging towards a moral decline. He loses his hard earned self respect when he uses the money, meant for a mosque construction, to bribe the police and free himself of charges of murder of his own child. The family's financial condition worsens as his male-chauvinistic thinking prevents him from letting his daughters to work for a living. He reluctantly lands

up to his former patient, a brothel owner, Choudhry (Shafqat Cheema) to teach Quran to his children, but his earnings are just not sufficient to overcome the huge debt. Surrendering to the misery, he yields to Choudhry's immoral proposal of marrying his daughter to produce female child. But after the daughter's birth, the very thought that his blood would become a prostitute, forces him to confront Choudhry. As this comes to his families notice, they are devastated and decide to leave the town with their step- sibling. Hakim tries to resist his family and attempts another murder but Zainub, fed up with his atrocities decides to emancipate her family by ending her father's life and shouldering the charge of a murder. Zainub is finally awarded the capital punishment despite the media's last minute resort to project her act as justified measure to redemption but before her death she leaves a gusty question for the society– if killing someone is a crime; then why giving birth when you can't raise them in dignity should not be a crime?

DISCUSSION

Almost every character in the movie seems to be deviant if viewed through a skeptic's eye. But analysis of the characters in the movie through a psychological prism, unleashes the various colors of personalities, and leads to a better understanding of the thin line dividing normal and abnormal human behaviour. The aggression and chauvinism of Hakim's character can be explained by Adler's concept of '**aggression drive**' which describes it as the reaction we have when other drives, such as our need to eat, be sexually satisfied, getting things done, or be loved, are frustrated. '**Compensation**' or '**striving to overcome**' meaning what we are, is the result of the problems we have and the means by which we compensate or overcome them, also explains Hakim's behaviour. His self centered behaviour can be explained by the term **inferiority** which means if life is getting the best out of you, then your attentions become increasingly focused on yourself (Boeree, 2006); and this is beautifully depicted in the movie. The development of Hakim's unrelenting and austere personality can be attributed to the rough experiences he must have endured while migrating to Pakistan after partition and him being treated separately

as minority, muhajirs - an example of Freudian concept of '**childhood experiences shaping personality**' (Carver & Scheier, 2004).

In Adlerian terms, the character of Zainub (who incidentally happens to be the eldest among the siblings), which has been depicted as a defiant and adamant lady and as someone who neither approves to her father's behaviour nor yields to his inexorable religious and moral expectations; and her defiance ultimately landing her up in prison awaiting capital punishment for killing her own father, can be explained by '**Birth order**' which says that first child is more likely than others to become problem child and end up in prisons. The portray of her character in the movie can also be understood as '**masculine protest**' against autocratic father, the concept given by Adler who stressed the fact that both boys and girls begin life with the capacity for protest (Boeree, 2006).

The personality of saifuddin seems to be a combination of different types of lifestyles proposed by Adler, '**organ inferiorities**', '**pampering**' and '**neglect**', showing prominent feeling of inferiority in him than others, pampering by his sisters making him incapable of doing things by himself, and neglect by his father accompanied by the constant hurling of abuses that he was inferior to others ultimately making him think he was inferior (Boeree, 2006). A better handling of his childhood would have definitely made him capable of dealing with situation at hand, when he was raped.

Zainub's mother classically represents **learnt helplessness** by being a meek witness to her son's murder by her husband Hakim and by her inability to deny the repeated attempts by her

husband to make her deliver a male child. Series of setbacks and failures seems to have rendered her low in confidence and stopped her from making any further attempts to resist or change things for the good (Abramson et al, 1978).

Psychological autopsy of the characters of this movie will definitely lead us to introspection and a better understanding of nuances of "normal" human behaviour.

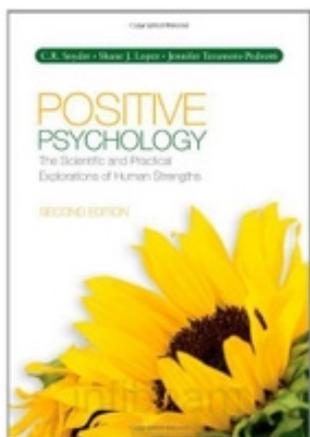
REFERENCES

Abramson, L. Y., Seligman, M. E. P., Teasdale, J., D. (1978) Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87, 49-74.

Boeree, C. G. (2006) *Personality Theories*. Original E-Text-Site: [<http://www.ship.edu/%7Ecgboree/perscontents.html>] Carver, C. & Scheier, M. (2004) *Perspectives on Personality*, 5, Boston, Pearson.

-
1. **Dr Roshan V Khanande**, MBBS., Junior Resident (Corresponding author) Central Institute of Psychiatry, Ranchi-834006, E-mail: roshankhanande@gmail.com
 2. **Dr. S Haque Nizamie**, M.D., D.P.M., Professor & Director, Central Institute of Psychiatry, Ranchi-834006.
-

Book Review...



Title	: Positive Psychology: The Scientific and Practical Explorations of Human Strengths
Publisher	: SAGE Publications (CA)
Year	: 2010
Authors	: C R Snyder, Shane J Lopez, Jennifer T Teramoto Pedrotti
Price	: Rs. 595/-

INTRODUCTION

Positive psychology as a branch is relatively new and deals with the study of the conditions and processes that leads to flourishing or optimal functioning of people, groups, and institutions. Originally, its historical roots back to William James's writings on "healthy mindedness" in 1902, Allport's interest in positive human characteristics in 1958, to Maslow's advocacy for the study of healthy people in lieu of sick people in 1968 and Carl Roger's emphasis on the fully functional person (Linley et al, 2006). However, positive psychology in its present form was attributed to Seligman and Csikszentmihalyi. A special issue of 'American Psychologist' appeared in January 2000, which devoted to positive psychology, where they claimed that psychology was not producing enough "knowledge of what makes life worth living" (Gable & Haidt, 2005)

ABOUT THE AUTHORS

This second edition of the book is dedicated to the senior author (late) Professor C. R. Snyder who died on January 2006. Known for his humility and wittiness by his colleagues, his contributions were internationally recognised in the fields of clinical, social, personality and health psychology. His theories have pertained to how people react to personal feedback, the human need for uniqueness, the ubiquitous drive to excuse transgressions and, most recently, the 'Hope' motive. He was a pioneer in the positive-psychology movement, which looks at human strengths instead of weaknesses; Snyder wrote or edited 23 books, including six books he wrote on the theory of hope. His books and 262 articles describe hope's impact on various aspects of life, including health, children, spirituality and work.

Shane J. Lopez, Ph.D., is a research director for the Clifton Strengths School and senior scientist in Residence at Gallup. His research contributions links the gap between hope, strengths development, academic success, and overall wellbeing and collaborates with scholars around the world on these issues. He specializes in hope and strengths enhancement for students from preschool through college graduation, and he advocated a whole-school strengths model that also builds the strengths expertise of educators, parents, and youth development organizations.

Jennifer Treamoto Pedrotti, PhD, is Associate Professor in the department of Psychology and Child Development at California Polytechnic State University, San Luis Obispo. She teaches positive psychology, multicultural psychology, clinical and counselling psychology and research methods.

The book starts with its dedication to its senior author C R Snyder. It is a brief description of the author who has contributed so much to this field despite suffering from chronic chest and abdominal pain for the last 15 years of his life. The book is well written and organized into eight parts and eighteen chapters. Most chapters begin with simplistic description of concepts and as one reads further, its gets more theoretical and scientific (as the title suggests) with research findings and applications. The personal case histories present in all the chapters do help in conveying an otherwise complicated message in simple terms. All chapters end with descriptions of key terms and some chapters with a summary. Overall the book has a textbook like organization where students and teachers of behavioural sciences may find it appealing.

The first chapter introduces the reader to 'Positive Psychology'. It vividly describes the origins of the subject and differentiated it from dealing with people's strengths rather than their weaknesses. It also emphasizes role of positive psychology with real life situations and personal mini experiments where the reader would come across throughout the book. The chapter ends with an appendix of movies for review, which is quite informative. The second chapter describes the cultural differences that exists between Eastern and Western cultures based on religion and value systems. It concisely differentiates "individualistic' culture of the West and 'collectivist' culture of the East and their differences in their orientation to time and thought processes. The third chapter takes us to various measurements of individual strengths and positive outcomes through various tests like the Gallup's Clifton Strengths finder, Values in Action (VIA) classification of strengths, where the authors described these tests in detail.

The next part deals with cultural and development aspects of psychology and compares the cultural differences that exists across the globe and how culture determines resilience and coping of an individual. The chapter on Positive emotional states and processes is more technical in terms of theories and applications and it delves in detail constructs of affect, emotion, happiness and subjective well being, and with many personal case histories and mini experiments as to how one can make one's life more fruitful and productive yet enjoyable.

Chapters 9 and 10 gives erudite insights into constructs like wisdom, courage, mindfulness, flow and spirituality by tracing back historical concepts. The authors have done well to explain these seemingly common yet complicated constructs in understandable language with modern conceptualizations and their benefits when applied to psychotherapy. The in depth argumentations of concepts like egotism, altruism, gratitude is simplistic yet informative.

Chapter 12 on attachment, love and flourishing relationships draws a lot from John Gottesman's research and work on love and relationships. Apart from psychological theories and practice, various neurobiological aspects were also described. Gottesman's research and predictions of the fate of a marriage based on measuring bodily sensations and reading the faces of husbands and wives when interacting with 94% accuracy is worth mentioning. The chapter also provides tips for enhancing one's marriage.

The later chapters are more theoretical in approach and reading gets more tedious. Most constructs are overly detailed with some being explained from the evolutionary perspective. Apart from explanations, scales and measurements are available for constructs like hope, optimism, self-efficacy, wisdom, courage and uniqueness to name a few.

The final chapter closes with a rather somber note that the 'bad is stronger than good' and the future of positive psychology as a branch of psychology. The chapter detailed various excerpts of experts views on 21st century Positive Psychology.

CONCLUSION

The book Positive psychology: The scientific exploration of human strengths as the title suggests is not meant for lay persons. The organisation and layout provides a good base for students and professionals of behavioural science and compounded with the fact that all the authors are master in the field, provides a good base for the emerging field of positive psychology. It is exhaustive in description and certain concepts are made simple through many case histories and personal experiences of the authors. The layout of the text is simple although at times one may feel digressed from the original theme. In my opinion, this textbook (if I may describe it) is a good resource for students and professionals of behavioural science and incorporating some positive psychology into one's life and therapy can lead to favourable outcome and a welcome break from the traditional focus of the negative in abnormal psychology. This book also offers various references and internet resources for those who want to pursue research and advancement in this new and probably upcoming field.

REFERENCES:

- Linley, P.A., Joseph, S., Harrington, S., et al (2006) Positive psychology: Past, present, and (possible) future. *The Journal of Positive Psychology*, 1, 3-16.
- Gable, S.L., & Haidt, J. (2005) What (and Why) Is Positive Psychology?. *Review of General Psychology*, 9, 103-110.

-
1. **Dr. Arvind Nongpiur** MD, DPM., Senior Resident, Central Institute of Psychiatry, Kanke, Ranchi, 834006
-

Memoir...

LIFE WITH MENTAL ILLNESS

The article that follows is a part of the Indian Journal of Social Psychiatry's (IJSP) Memoirs series. We hope that mental health professionals will take the opportunity to learn about the issues and difficulties confronted by the patients. In addition we hope that these accounts will give patients and families a better sense of not being alone in confronting problems that can be anticipated by persons with serious emotional problems. We welcome other contributions from patients, ex-patients or family members.

Clinicians who see articulate patients should encourage these patients to submit their articles to Editor, IJSP, Memoirs, Central Institute of Psychiatry, Ranchi-834006—The Editors

I am working as a research scholar in reputed Institute of India. After completing my Masters, I was offered a good Government job, but at the same time my performance in research entrance examination was enough to get me admission in a good institute as a research scholar. Ultimately after giving much thought I opted for PhD programme. After joining PhD, I was not sure whether my decision was right. When I look back, there is a constant thought that the career option I chose, made me weak and mentally ill.

It was October 2010, just around Durga puja, when I started to feel a bit low. Actually Durga puja is a festive period, and union with family and friends should have made me happy, but there I was, feeling unconfident in every work I did, felt uninterested in joining my family and stayed almost isolated. I was feeling tiresome and sleepy almost every time. At that time I had no idea about what miserable condition I was to face in near future.

At my work place we used to discuss research problems, which was a routine activity. But suddenly I was different and silent. I was no more the person I used to be, who participated in every discussion, whether academic or non-academic. As the situation went out of hand, I started to think everyone is against me. Fearful and disturbed, I was thinking of myself as an absolute loser and my future was dark, hopeless. I started Pranayam exercise just to bring some peace to myself, but every step I took to get over the illness, looked going backwards. Gradually it became tough to take tutorial classes, which is mandatory for all research scholars. Due to my illness, I was almost speechless. During this period, simple things like bargaining with shopkeeper became impossible because of my low self-esteem. My daily routine became chaotic, weakness in the morning made me twist and turn in bed till 9 o'clock and then, I had to wait till late hours to get a good sleep. I would go

daily to my laboratory and would stay there most of the time, just to give some satisfaction that I was working, but actually I did nothing productive and every passing minute felt like an hour. Going through all this, there was a feeling that I was going to die and felt helpless to save myself. I started considering myself as a victim of fate.

During November, I started feeling that I was being watched by others and commented upon. Although this sounds meaningless now, but at that time it was as true as daylight and it was very painful to me. I used to often reason why people are watching me and talking about me. But now I feel it was just a silly thought of my mind. I was always tearful, unable to face simple hurdles as I strongly believed that they would get better of me. At the end of December my life became miserable when every day felt as a huge burden. I was feeling incapable of living any more. On 31st December, I tried to commit suicide by touching live wire, but by God's grace I survived. One of my friends advised me to meet a psychiatrist but I did not pay much attention. Finally in the first week of January, I met a counsellor at local counselling centre. They worked hard on me but things were not looking up. Improvement was slow. Towards the middle of February, I was referred to a psychiatrist. According to him I was suffering from Schizophrenia. Medicines which he prescribed, gave me some respite. Full recovery seemed elusive as I lost faith in medications I received. Shattered, I called my parents and eventually they came to know about my condition. They contacted my supervisor and I managed to get a leave for few days. Truly speaking, I was not happy while going home but at the same time mere thought of coming back made me feel sick. Being the only son, my parents did everything to cure me, even taking help of tantras and mantras. Meanwhile, one of my seniors suggested me to visit a tertiary institute at Ranchi. I convinced my parents and asked them to accompany me. After detailed history and probing into my problems, they came to final conclusion. I was suffering from major depression. I was really happy and felt satisfied by the way things were handled at this hospital. The treatment given showed its effect within few weeks and at last I was feeling the change in myself. During follow up I was approached by a doctor who advised me to take 10 days of Magnetic stimulation treatment. He also informed me about its benefits and virtually negligible side effects. After a month of treatment, I am feeling much better. I am overwhelmed by the care and help provided by professionals at the institute, who helped me in my worst of times.

Name withheld on ethical ground

INSTRUCTION FOR AUTHORS

The Indian Journal of Social Psychiatry is the official publication of Indian Association for Social Psychiatry. The journal is peer-reviewed, is published quarterly and accepts original work in the fields of social and community psychiatry and related topics. Now the journal is available online at www.iasp.org.in

Manuscripts are accepted for consideration of publication by The Indian Journal of Social Psychiatry with the understanding that they represent original material, have not been published previously, are not being considered for publication elsewhere, and have been approved by each author.

PREPARATION OF MANUSCRIPTS

All contributions should be written in English. All manuscripts apart from "Letters to the Editor", "Book Reviews" and "Film Reviews" are reviewed by two or more assessors.

ARTICLE TYPES

Review Articles

Reviews are usually invited by the Editor. However, good quality reviews on pertinent topics can be submitted for publication. The maximum length of reviews (including abstract and references) is 7500 words. Abstract may be an unstructured summary which should not exceed 250 words.

Research articles

Original quantitative as well as qualitative research papers are published under this section. Maximum word limit for research articles is 5000 words (including references and abstract). Abstract has to be structured and should not exceed 200 words.

Brief Communication

Under this section data from preliminary studies, studies done with smaller sample size, worthwhile replication studies, or negative studies of important topics are published. Single case reports do not meet the criteria for this section. Brief Communications cannot exceed 2500 words, including an abstract of no more than 150 words, text, and references). No more than one table or one figure can be included.

Letters to the Editor

Brief letters (maximum of 1000 words, including references; no tables or figures) will be considered if they include the notation "for publication". These limits may be exceeded in exceptional circumstances, but authors are advised to confer first with the Editorial Office.

Case reports or any other uncontrolled observations should be submitted as Letters to the Editor. Letters critical of an article

published in the Journal must be received within six months of the article's publication. Such letters must include the title and author of the article and the month and year of publication. The letters will be forwarded to the authors of the discussed article for their response. Letters that do not meet these specifications will be returned immediately.

Book Reviews and Film Reviews

The Indian Journal of Social Psychiatry also publishes critical reviews written on recently published books or films pertinent to social psychiatry. Usually such reviews are invited by the Editor. However, authors can submit their reviews for publication. The Editor takes the final decision as to which review is suitable for publication. In no circumstances should reviews exceed 2500 words.

Organization of Manuscripts

All parts of the manuscript must be double-spaced throughout with a minimum margin of 1 inch on all sides. The manuscript should be arranged in the following order, with each item beginning a new page: a) cover letter, b) title page, c) abstract, d) text, e) references, and f) tables and/or figures. All pages must be numbered.

a) Cover Letter

Cover letters should include statements regarding Authorship, Disclosure of any potential conflict of interest, and a statement on under which section the authors want their manuscripts to be considered.

b) Title Page

This should contain the title of the contribution, and the name(s) and address(es) of the author(s), and position titles at their respective institutions/places of employment. Make titles concise, and as precise and specific as possible for abstracting purposes. The full postal address, telephone and facsimile numbers, and Email address (if available) of the author who will receive correspondence and check the proofs should be included, as well as the present address of any author if different from that where the work was carried out. Addresses for authors other than the correspondence author should contain the department, institution, city and country. Position titles of all authors at their respective institutions/places of employment should be included.

c) Abstract

A summary of the paper must be in the form of a structured abstract using the format below. However, abstract may be unstructured for review articles (as mentioned above). Case reports, letters, and film/book reviews do not require any abstract.

Research articles

Background: need for the study with specific aim or objectives

Method: design, setting, sample, interventions (if appropriate), chief outcome measures.

Results: provide main findings with p values.

Conclusions: only those related to results, both positive and negative, highlighting limitations as appropriate and clinical and research implications.

Key words: three to six key words that will assist indexers in cross-referencing the article should be supplied. Use of the medical subject headings (MeSH) list from Index Medicus would be suitable.

d) Text

The text should be written in grammatically correct good English. It should be typed double-spaced throughout with at least 1 inch margins on all sides.

Pejorative Language: Do not use pejorative labels like 'schizophrenics', 'psychotics' and 'neurotics'. Instead refer to 'patients with schizophrenia', etc.

Abbreviations: Abbreviations should in general be avoided. However, phrases may be abbreviated if their shortened form is widely known and they are used repeatedly (e.g. CNS, OCD etc). When first used in the text, they should be spelt out in full followed by the abbreviation in brackets.

e) References

References should include a list of all articles and books at the end of the paper. Arrange alphabetically by the authors' names and date of publication in parentheses. Authors should follow journal style for reference list using the following examples.

Bhugra, D. & Mastrogianni, A. (2004) Globalization and mental disorder: Overview in relation to depression. *British Journal of Psychiatry*, 184, 10-20.

Rosenberg, A.A., Solarz, A.L., Bailey, W.A.(1991) Psychology and homelessness: A public policy & advocacy agenda. *American Psychologist*, 46, 1239-1244.

Woodward, D., Drager, N., Beaglehole, R., et al (2001) Globalization and health: a framework for analysis and action. *Bulletin of the World Health Organization*, 79, 875-881.

Marsella, A. (1995) Urbanization, mental health and psychosocial well-being. In: Harpham, T. & Blue, I., (Eds.), *Urbanization and Mental Health in Developing Countries*, pp.17-40, Aldershot: Avebury.

Tables

Tables should be included on a separate page, numbered with Arabic numerals and accompanied by short titles at the

top. Each table must be referred to in the text in consecutive order. Data presented should, in general, not be duplicated in the text or figures. Explanatory matter should be placed in footnotes below the tabular matter and not included in the title. All non-standard abbreviations should also be explained in the footnotes. Footnotes should be indicated by *, +, §.

Figures

Line drawings and graphs should be professionally drawn. All lettering should be done professionally and should be of adequate size to retain clarity after reduction. Figures should be numbered in Arabic.

Submission

The journal now accepts online submission. The authors can submit their manuscript as attachment through e-mail: ijsp09@gmail.com /or authors can also submit their manuscript in a CD containing the manuscript along with a hard copy (A4) having one inch margin on all side and written on one side only with double spacing. Label the CD with contributor's name, short title of the article, software (e.g. MS Word), version (e.g. 7.) and file name.

The manuscript should be sent to the editor's office:

Dr. Vinod K. Sinha

Editor, Indian Journal of Social Psychiatry

Central Institute of Psychiatry

Kanke, Ranchi-834006.

Declaration of Interest

Authors should disclose at the time of submission any financial arrangements they might have with a company or any organization. It should be clearly mentioned in the cover letter which should accompany manuscripts during submission. Such information will be held in confidence while the paper is under review and will not influence the editorial decision but, if the article is accepted for publication, the Editor will usually discuss with the authors the manner in which such information is to be communicated to the reader.

Copyright Transfer

The Journal requires approval of manuscript submission by all authors in addition to transfer of copyright to the Indian Association for Social Psychiatry so that the author(s) and the Association are protected from misuse of copyrighted material. A copyright transfer form, which must be signed by all authors upon acceptance of the paper, is available at www.ijsp.in/copyright.htm. (click here) Accepted manuscripts will not be scheduled for publication until a completed form has been received in the editorial office. It is the author's responsibility to obtain the approval of individuals before acknowledging their assistance in the paper.

Authors can send their Authorship, Disclosure, and Copyright Transfer by mail or fax after they have been notified of acceptance.

OBITUARY



Late Prof. Ranbir S Bhatti (1941-2011)

Prof. R.S Bhatti passed away on the 11th Oct. 2011 after a long battle with recurring illness.

I first met Prof. Bhatti in the year 1989 at the National Institute of Mental Health and Neurosciences, Bangalore where I had gone to attend a refresher course in mental health sponsored by WHO and organized by Department of Psychiatric Social Work. I saw Prof. Bhatti clean shaven with short hair sitting alone in the corridor in front of his official chamber exposing himself to the rays of the sun. After having introduced myself he asked me to be seated an adjacent chair. We had a long conversation lasting for about 30 to 45 minutes. He struck to me as a simple, straight forward and sincere person with a very sharp observation skill. We soon developed a good friendship after our first meeting. We had been in contact with each other through telephone, later by email as well or during his visits to Central Institute of Psychiatry, Ranchi either as visiting professor or as an examiner.

Prof. Bhatti remained very active in clinical, teaching and research activities throughout his entire career. He joined as a Psychiatric Social Worker in All India Institute of Mental Health (now NIMHANS), Bangalore in 1974. Subsequently he headed the Department of Psychiatric Social Work, NIMHANS, Bangalore in 1998 to 2002. He superannuated as Prof. of Psychiatric Social Work in the year 2003 and he joined as Professor of Family Therapy at Montfort College, Bangalore on the very next day i.e. 1st of January, 2004. He had been recipient of Indian Council of Social Science Research (ICSSR) fellowship during 1977-78 for his Doctoral work. Prof. Bhatti was recipient of G.S. Boral Award for excellent research work in field of social psychiatry. He had number of professional memberships i.e. Indian Association of Social Psychiatry, Indian Association of Child and Adolescent Mental Health, World Association of Psychosocial Rehabilitation and International Family Therapy Association.

Prof. Bhatti had a special interest in the area of family-marital counselling and therapy and majority of his research work dealt this area in particular. He published a large number of scientific papers in the national and international publications, chapters in many books and simultaneously edited few books. He was very closely associated with late Prof. SM Channabasvaanna and in-fact they worked together for the development of Family Psychiatric Unit of NIMHANS, Bangalore. He was member of many task forces and various committees of Government Organizations and Ministry of Health and Family Welfare, New Delhi. During his visits to Central Institute of Psychiatry, after day's tiring work, we used to sit together in the evenings. We used to have long conversations and used to share views about professional, political and personal matters. He was very fond of delicious food. He used to spend lavishly on such items and he always praised the cooks for their preparations.

Earlier when web site facilities were not available in Central Institute of Psychiatry he used to accompany me to Kanke Road to check his mails. He was a well-wisher, who was very much concerned about others (depending on trust developed) and in-fact he opened my Id email which I still use. I still have my email Id with password written by him in his own handwriting on a piece of paper.

I must share few words about his family. He came from a village of Punjab and married Ms. Lali Bhatti who hailed from Kerala, herself a professional at par who worked at St. John's Medical College, Bangalore from where she retired. They were together for nearly three decades. She remained an ideal wife, partner and collaborator. She always stood beside him in both joy and sorrow. They have two grown up sons who are in the beginning of their career.

Prof. Ranbir S. Bhatti would always be remembered by his family and relatives, friends and colleagues and students for being sharp, sincere, open and a straight forward person. He has left a vacuum in the field of mental health and especially in Psychiatric Social Work.

Prof. A. N. Verma

Department of Social Work

Ranchi Institute of Neuro-psychiatry and Allied Sciences, Ranchi

A New Class of Antipsychotic Medications

Qupin

(Quetiapine Fumarate 25/50/100 mg. Tablets)



FOR THE USE OF REGISTERED MEDICAL PRACTITIONER OR A HOSPITAL OR A LABORATORY

A journey from darkness -
helping relieve the suffering,
mind and body - into the light.

Duloxin

Duloxetine Tablets 20/30/40 mg.

FOR THE USE OF REGISTERED MEDICAL PRACTITIONER OR A HOSPITAL OR A LABORATORY

Stolen Lives, Stolen Minds



SCHIZOPHRENIA

Atypical second-generation
Antipsychotic

AMIS

Amisulpride Tablets
50mg/100mg / 200mg

Amis is indicated for the treatment of:-
Acute & Chronic Schizophrenic Disorders

- Delusions
- Blunted Affect
- Hallucinations
- Emotional and
- Thought disorders
- Social Withdrawal

At low doses,
Amisulpride enhances dopaminergic neurotransmission
by preferentially blocking presynaptic dopamine D2/D3 autoreceptors.

At higher doses,
Amisulpride antagonises postsynaptic dopamine D2 and D3 receptors.
(preferentially in the limbic system rather than the striatum, thereby reducing dopaminergic transmission.)



Manufactured in India by:- **D.D. Pharmaceuticals Pvt. Ltd.**
G-1/583, RIICO Indl. Area, Sitapura, Tonk Road, JAIPUR-302022 (Raj.)
AN ISO 9001 : 2000 Certified Company



The Makers of

Diprate-OD

Divalproex Sodium Extended Release Tablets

Elanza

Olanzapine Melt in Mouth Tablets

QUPEX - SR

Quetiapine Sustained Release Tablets

Solprate CR

Sodium Valporate Tablets

ESSITA

Escitalopram Tablets

ZONA

Clonazepam Tablets

REJOICE - OD

Methylcobalamin, Thiamine, Ala, Folic Acid

THIASOLE INJ

Thiamine Injection 50 mg/ml.

SOLVATE

For mood stabilization in BMD with JUST ONE

The once daily mood stabilizer

Dicorate ER ^{1 x 24}

Divalproex sodium extended release 125/250/500/750mg/1g tablets

The newer way the world prescribes valproate



Change to the new first-line first choice antipsychotic

Arpizol

Aripiprazole
5/10/15/20/30 mg Tablets

Partial agonism... Total reintegration

The power of an SNRI active metabolite for control of both physical & emotional symptoms of depression

D-VENIZ
Desvenlafaxine
Extended release tablets 50/100 mg

Helps them rise to remission



A Division of Sun Pharmaceutical Industries LTD.
ACME-Plaza, Andheri Kurla Road, Andheri (E), Mumbai - 400 059.