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TREATMENT GAP IN MENTAL HEALTH

Mental and behavioural disorders can cause an alarming impact on the individual, family, and the community as a whole. The problem gets aggravated in developing and low income countries as there are diverse economic impacts based on expenditures made or resources lost. Mental disorders usually have young age of onset, low mortality and the indirect costs derived from lost or reduced productivity or absenteeism in the workplace are high (WHO, 2003). According to World Health Organization, 14% of the global burden of disease can be attributed to mental, neurological, and substance use disorders and about 75% of those affected do not have access to the treatment they need especially in low income countries (WHO, 2001a). The community-based epidemiological studies worldwide, have estimated rates of lifetime prevalence among adults ranging from 12.2% to 48.6% and 12-month prevalence rates ranging from 8.4% to 29.1% for mental disorders (Andrews et al, 1999).

Epidemiological studies conducted in India on mental and behavioural disorders report varying prevalence rates of 9.5% (Surya et al, 1964), 5.8% (Reddy & Chandrashekhar, 1998) and 7.3% (Ganguli, 2000) and this figure has not changed much in recent years. When it comes to the estimated burden, approximately 450 million suffer from mental and behavioural disorders. Depression has been projected to become the second leading cause of the global burden of disease by 2020. There are 70 million people suffering from alcohol dependence, 50 million with epilepsy, 24 million have schizophrenia and around 20 million people attempt suicide every year (WHO, 2001a). When it comes to the Global Burden of Disease report, neuropsychiatric conditions account for one-fourth of all disability-adjusted life-years (DALY), and up to a third of those attributed to non-communicable diseases which varies between countries according to income level (Mathers & Loncar, 2006).

A simple definition of the treatment gap is the number of people with an illness, disease, or disorder who need treatment but do not get it (expressed as percentage) (Kale, 2002). Mental and behavioural disorders have been largely ignored or neglected. The increasing burden of mental disorders is perhaps an outcome of the "treatment gap". Kohn et al (2004) found that the treatment gap varies according to disorders and from country to country. Thus they found that treatment gap, for schizophrenia including other non-affective psychoses was 32.2%, major depression 56.3%, dysthymia 56.0%, bipolar disorder 50.2%, panic disorder 55.9%, generalized anxiety disorder (GAD) 57.5% and obsessive compulsive disorder (OCD) 59.5%. Alcohol abuse and dependence had the largest treatment gap at 78.1%. The figures only speak about the magnitude of the problem we are facing with.

Certain factors come into play when we consider finding out the reasons for wide treatment gap for mental illnesses, more so in developing countries. The greatest barrier to development of mental health services has been the absence of mental health from the public health priority agenda. In most countries less than 1% of the budget is spent on mental health. Forty percent of countries have no mental health policy and over 30% have no mental health programme (Saxena et al, 2006). Moreover, health plans frequently do not cover mental and behavioural disorders at the same level as other illnesses, creating significant economic difficulties for patients and their families (WHO, 2001a). According to the Project Atlas (WHO, 2001b) resources to deal with the burden of mental illness in India are limited. For example, till 2001, there were only 0.25 psychiatric beds, 0.2 psychiatrist, 0.05 psychiatric nurses, 0.03 psychologist and psychiatric social workers per 10,000 population respectively. Treatment facilities for mental disorders were available in only 22 out of 600 districts in our country. The budget for mental health is merely 2.05% out of the total plan outlay for health (WHO, 2001b).

Negative attitudes about mental illness pose barriers for persons requiring treatment or those who are recovering from mental illness. Stigmatization has resulted in disparities in the availability of care, discrimination and in abuses of the human rights of people with these disorders (WHO, 2008). Corrigan (2000) delineates the cognitive and behavioural features of mental illness stigma such as stereotypes, prejudice and discrimination. The effect of public stigma results in discriminations faced by persons with mental illness in interpersonal interactions as well as in stereotyping and negative images of mental illness in the community at large. Due to stigma, resource allocation for mental health system
is lower than for other medical illness (Corrigan & Watson, 2003). Stigma in our country is no less. The mentally ill are perceived as aggressive, violent and dangerous. There is lack of awareness about the available facilities to treat the mentally ill and a pervasive defeatism exists about the possible outcome after therapy. There is a tendency to maintain social distance from the mentally ill and to reject them (Wig, 1997). A large number of patients with mental illness consult ‘Traditional healers’ in India who make up a large proportion of the private health sector. These traditional healers along with practitioners of indigenous medicine are more easily accessible in rural areas and they can be effective for minor mental illnesses (Thara et al, 2004).

A decade has elapsed since publication of the World Health Report (2001a) which focuses on Mental Health: New Understanding, New Hope. We now stand at the threshold where the burden of mental illness is far from being reduced. Perhaps with the WHO mhGAP project (WHO, 2008) which would stress on interventions that can be undertaken by busy doctors, nurses, and medical assistants working, with limited resources, at first- and second-level facilities at primary care facilities especially in low and middle income countries, bridging of the ‘treatment gap’ would reduce the burden of mental illness.

REFERENCES


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RITUAL SUICIDE

Samir Kumar Praharaj, Nishant Goyal, Sujit Sarkhel, S. Haque Nizamie

ABSTRACT

Ritual suicide is the act of suicide motivated by a religious, spiritual, or traditional ritual. Most of the ritual suicides are similar to altruistic suicide as described by Durkheim (Durkheim, 1951) which is characterized by insufficient individuation, excessive integration in society and is characterized by energy and activity. There are several types of ritual suicide described in literature. Some of them are of historical interest such as the self-decapitation of Mayans, jauhar and saka of Rajputs in India and Juramentado in Moros of Philippines. There are other ritual suicides which were common in the past, nevertheless, occasional instances of them are still observed in recent times. Furthermore, suicide is a tragic tradition in Japan. It is often resorted to as a means of escaping shame or saving loved ones from embarrassment or financial loss. Suicide is considered justified and is even admired in these situations (Nakagawa, 1995). A PUBMED and GOOGLE search was undertaken using key word "ritual suicide" and was supplemented with manual search. The relevant literature is summarized.

Key Words: Ritual suicide, Sati, Altruisim

INTRODUCTION

Ritual suicide is the act of suicide motivated by a religious, spiritual, or traditional ritual. Most of the ritual suicides are similar to altruistic suicide as described by Durkheim (Durkheim, 1951) which is characterized by insufficient individuation, excessive integration in society and is characterized by energy and activity. There are several types of ritual suicide described in literature. Some of them are of historical interest such as the self-decapitation of Mayans, jauhar and saka of Rajputs in India and Juramentado in Moros of Philippines. There are other ritual suicides which were common in the past, nevertheless, occasional instances of them are still observed in recent times. Furthermore, suicide is a tragic tradition in Japan. It is often resorted to as a means of escaping shame or saving loved ones from embarrassment or financial loss. Suicide is considered justified and is even admired in these situations (Nakagawa, 1995). A PUBMED and GOOGLE search was undertaken using key word "ritual suicide" and was supplemented with manual search. The relevant literature is summarized.

Sati in Hindus

Sati (also known as suttee) refers to the Hindu practice of self-immolation by a woman at the funeral pyre of her husband (Bhugra, 2005). Symbolically, it was believed to be a sign of superiority of the feminine principle in the universe. This kind of sacrificial death had three purposes:

1. A blessed existence for the husband and wife in paradise and throughout their subsequent rebirths.
2. Prestige for the kin of both the families.
3. Blessings for all those who attended the cremation.

The term ‘sati’ is derived from the name of the Hindu goddess sati (also known as Dakshayani), who immolated herself as she was not able to bear her father Daksha's humiliation of her husband, Shiva.

The practice of sati was not applicable to Brahmins whereas it was prevalent among the Kshatriyas (the warrior class), that spread to lower castes at later times. Two types of sati have been described in the literature (Vijayakumar, 2004):

1. Sahamarana or Sahagamana, where the widow ascended the funeral pyre of her husband and was burnt along with his corpse.
2. Anumarana or Anugamana, where the widow after the cremation of her husband resolved to die, prepared a funeral pyre and burnt herself.

Widow-burning can be found in many historical cultures, along with the immolation of a ruler's or a nobleman's slaves, horses and favourite objects. It has existed in India since at least 510 AD (Thapar, 1966). There are even earlier references in the religious texts which existed probably as a symbolic enactment. Megasthenes, ambassador of the Greek king, in the late 4th century BC, mentions its practice among certain tribes in India (Rawlinson, 1925).
It has been reported that an element of underlying coercion as well as devotion was prevalent in the practice of sati (Bhugra, 2005). There is some evidence to suggest that widows may have been poisoned or their clothes set on fire in Gujarat in 1920's under the pretext of practice of sati (Bhugra, 2005). A system known as dayabagha prevailed in Bengal which entitled woman equal property along with male members of the departed husband. This has been cited as a reason for the higher frequency of the sati system in Bengal, in which the woman was driven to commit sati by emotional or physical coercion so that the property need not be divided (Vijayakumar, 2004). Raja Ram Mohan Roy, a reformer from Bengal who founded the Brahmo Samaj, was moved by the atrocities committed against women of his own community and called for a total ban on sati and a complete prohibition of polygamy, which was a recognized customary right for the Hindu males. It was the efforts of Lord Bentinck who was the then Governor General of India which put an end to sati. His crusade against sati resulted in confrontations with the British rulers and Hindu protagonists but with conviction, on 4th December 1829, he brought a law in which sati was considered a culpable homicide. With the enactment of the law sati was banned.

In a recent case of sati which sparked hot debate, Roop Kanwar, an 18-year-old recently married woman immolated herself on the funeral pyre of her husband in a small town of Rajasthan (Bhugra, 2005). The woman was revered as a goddess and no one including the police did anything to prevent the tragic incident. Although her kinship reported that she had made up her mind to join her husband, there were rumours that she might have been drugged during the event. Since her death, Roop has been elevated in the eyes of many to the status of goddess, and within a fortnight of her suicide, 750,000 people had made the pilgrimage to the pyre on which she perished (Vijayakumar, 2004). There were several other cases of sati following that episode. On the 7th of August, 2002 in the district of Panna, Madhya Pradesh a 65-year-old woman by the name of Kuttu bai widow of Shri Mallu Nai committed sati (Press Report, 2002). Police authorities were informed of her decision to commit sati yet failed to take any timely intervention. Just a few days later on the 12 in Dausa district of Rajasthan, a 24-year-old Khayal Bai Meena, widow of Shri Bhagyasrihali made a similar attempt to commit suicide. This time however, the police was able to prevent the incident from occurring.

There has been no report of psychological autopsy applied to sati cases making it difficult to ascertain psychiatric disorders in them. There is a possibility of depersonalization during the bereavement immediately after the death of husband and the women commit sati out of their ambivalent relationships or from social pressure (Bhugra, 2005).

Jauhar and Saka of Rajputs

Jauhar refers to a form of ritual mass suicide in which the queens and other womenfolk including children of defeated Rajputs committed suicide on a huge funeral pyre (Vijayakumar, 2004). Mass self-immolation by women was called jauhar, whereas riding out and fighting to death by men was called saka. When defeat became certain in a war, it was considered proper to fight to the last breath, but to avoid capture and dishonour of royal women, Jauhar was committed. The event included several rituals. On the final day of battle, the women dressed in wedding costume sacrificed themselves in the pyre before the fire god. The next morning after taking a bath, the men would wear kesariya bana (saffron coloured piece of cloth) and apply the ash from the maha samadhi of their wives and children on their foreheads and put a tulsi leaf in their mouth. Then the palace gates would be opened and men would ride out for complete annihilation of the enemy or themselves. Jauhar was the only precaution against their women being molested and dishonoured at the hands of the enemy. Jauhar and Saka were always performed together.

There are a number of instances of jauhar, especially during the Khilji and Tughlaq times. The most famous example of jauhar was of queen Padmini at Chittor to avoid capture by the then Muslim sultan of Delhi, Ala-ud-din Khilji, in 1303 (Vijayakumar, 2004). Queen Padmini and other women in the fort committed suicide in the pyre to save their honor when they were sure of defeat by the sultan's army. Following the death of their women and children, king Ratnasen and others rode out of the fort and fought with sultan's army till death. During the Tughlaq campaign against the state of Kampili in the Raichur Doab and the siege of Annegondi (later was renamed to Vijayanagar), a jauhar was committed. In 16th century, there were further large-scale acts of jauhar at Chittor, reportedly involving vast numbers of women. Widow-burning was common among the princes and the higher castes. Sixty-six women were burnt at the funeral of Ajit Singh of Marwar (Jodhpur) in 1724, and 84 died at the funeral of Budh Singh, Rajah of Bundi (Narasimhan, 1990). There is extensive glorification of the practice in the local ballads and folk-histories.
Tragu of Charans in India

The Charans refers to a caste living in the Gujarat and Rajasthan states of India and are highly revered for their unflinching readiness for martyrdom, bravery in war, high literary sense and deep loyalty to patron. They practiced a form of self-immolation, known as tragu, when their demands were not met. Tragu consisted of shedding one's own blood or the blood of some member of one's family and calling down the vengeance of heaven upon the offender whose obstinacy necessitated the sacrifice. Sometimes the Charans performed tragu by putting fire on themselves. Tragu or self-immolations were performed only when the offending party was not considered to be an enemy. When the offending party was an enemy, the Charans would always choose to go to war.

Self immolations were performed for a variety of reasons, although usually over matters of honor. One Gadhavi woman, Punai Mata practised self-immolation to save a wild hare. This type of sacrifice was greatly respected. Charans acted as surety and also as guides for travelers and goods. A Charan would commit tragu if anyone tried to rob him or his party. Guardian stones (known as paliyas) are a common sight while entering most villages in western Gujarat. They are a standing testimony of Charans who performed tragu to prevent robbers from stealing the cattle of the village. The British government in India put a ban on performing tragu from 1808 onward. However, in post-independent India, one encounters almost no instance of tragu.

Santhara (Sallekhana) in Jains

In Jainism, a form of ritual fasting till death known as santhara or sallekhana or samadhi-marana is practised, this means giving up the body willfully. Such practice of commission of suicide by starvation is also known as apocarteresis. This is considered to be the highest form of renunciation in Jainism. In 420 BC, Mahavira, the founder of the Jain tradition, who believed in non-violence and existence of life in all beings, had undertaken sallekhana. Since that time followers of Jainism, especially the shvetambars, consider the practice of sallekhana to be the most sacred rite.

When end of life is very near either due to old age, chronic and incurable disease or other catastrophe, Jains may prefer to take the vow of sallekhana, committing themselves to slow starvation (Sogani, 2001). Then they approach their guru and express their wish to end their life. Thereafter, they give up all personal relationships, friendships and possessions, and forgive others for their wrong doings and seek pardon for their own sins committed during lifetime (Sogani, 2001). Sallekhana is undertaken either in the family home or in a special fasting hall, when more than one is practising such ritual. Commonly, the relatives publicize the event and pilgrims come to pay their respects during the fasting period and even following death prior to cremation.

In recent times, there have been reports of sallekhana from various parts of India (Braun, 2008). Amar Chand Kasawan, a 74-year-old man suffering from gangrene and pneumonia for a long time, took up sallekhana. He died on the fifth day of his fast but instead of mourning, the family glorified his death. According to the Jain community, he attained divine status. Vimala Devi, a 61-year-old female died after fasting for 14 days. Her family justified it by claiming that it was a wish, which she had expressed in her diary 15 years ago. Three other cases of sallekhana have been reported from Rajasthan, all of them being women over 80 years old (Braun, 2008).

Apocarteresis has been used as a mean to protest against the political oppression at various times. Mahatma Gandhi used hunger strike as a means of non-violent protest against British rule in India. Soon after independence, Potti Sriramulu fasted to death demanding a separate state. There have been several instances of fasting unto death while protesting in the recent times.

Self-immolation as protest

Self-immolation refers to setting oneself on fire. It has been used as a means of protest by Buddhist monks in South Vietnam and Sri Lanka in the late 60s and early 70s, which was known as bonzo. A Vietnamese monk, Thich Quang Duc committed suicide by self-burning on June 11, 1963, on the streets of Saigon to protest government persecution of Buddhists which raised a series of imitative actions (Park, 2004). After the event, thousands of Saigonese claimed to have seen a vision of the Buddha's face in the sky at sunset. Several Buddhist monks followed his example and burned themselves to death. In an imitation of the act of the Vietnamese monk, the student Jan Palach set himself on fire in 1969 to protest against the entry of the Warsaw Pact Army into Czechoslovakia; this was followed by similar cases (Laloë, 2004).

A massive wave of self-immolation occurred in India in the 1990s as a protest against the government for proposed
reservation for other backward castes. To hasten the process of social change and attainment of social equality, Mandal Commission was formed which recommended that 27% of the positions of employment in government should be reserved for people from backward classes. This created uproar and unrest among those from higher castes particularly in the student community. They agitated against the implementation as they felt that meritorious students would be denied their legitimate claim. A student from forward class committed self immolation in front of a group of people protesting that implementation was "reverse discrimination" and his act of self immolation was to protect the welfare of meritorious students. This was projected widely in the media. Following this, there was a spate of student self immolations protesting against the reservation policy in North India. Within a period of six weeks, more than 200 students from privileged castes immolated (or attempted to immolate) themselves in protest. It did not have an impact in Southern India as the system of reservation was already in effect. There have been several incidents of self-immolation while protesting in the recent times.

**Seppuku (Hara-kiri) of Japanese Samurai**

Seppuku refers to a ritual disemboweling that is practiced in Japan, which is also known as hara-kiri. The term hara-kiri derives from the Japanese hara meaning belly and kiri meaning to cut. It is a very uncommon and ghastly method for committing suicide (Di Nunno et al, 2001). The description of the first case dates back to 988 A.D. in Japan, when a man charged with theft and homicide took his life immediately after his arrest by ripping open his abdomen with his own hand (Di Nunno et al, 2001). Historically, hara-kiri was used by samurai warriors to take their own lives after being captured by the enemy to escape the ensuing fierce tortures. It was later used to allow an honorable end, "grant of death," to aristocrats and warriors sentenced to capital punishment (Watanabe et al, 1973). According to ancient myths, one's soul and love dwelt in one's brain or belly, and so a samurai, a Japanese warrior, would cut his stomach to show his spirit to his enemy. Over time, among the nobility hara-kiri became a synonym for death sentence and took on the name of tsumebara, which is a form of enforced hara-kiri. Classic hara-kiri involves thrusting the blade of a sword into the lower left region of the abdominal wall and cutting horizontally toward the right (Moriani et al, 1996). The blade is then pulled upward forcefully so that an L-shaped cut is produced in the abdominal wall without affecting the viscera. Besides being very painful, this method leads to a slow death, which is why another person, the kaishaku, would classically intervene to curtail the agony. The reason for this form of ritual suicides has been attributed to bushido, the way of the samurai warriors. They developed their cultural identity through violence. Honour and loyalty towards their lords and courage in combat while facing the enemy were the principles they lived and died upon. This method of committing suicide is now extremely rare in the western world and is generally confined to subjects intoxicated by alcohol or affected by depression or psychiatric disorders (Patel & De Moore, 1994; Di Nunno et al, 2001).

In Japan, hara-kiri after the death of one's lord was sanctioned until 1863, when the Tokugawa Shogunate strictly forbade ritual suicides along with other acts of violence (Kato, 1969). Nevertheless, it was still practiced, the most striking example being that of General Maresuke Nogi, who along with his wife committed hara-kiri after the death of Meiji Emperor Mutsuhito in 1912 (Kato, 1969). In 1970, Yukio Mishima (Kiminaka Hiraoka), a Japanese writer committed suicide by disembowelment and decapitation as a protest of the Westernization of Japan in front of an assembly of all his students.

Hara-kiri, a part of Japanese cultural history, still has an impact on the way the Japanese view suicide (Naito, 2007). Japanese company presidents often commit suicide when they fail in some business or management venture. The consideration of suicide by a top executive may not only be the result of inability to endure social pressure but also because of his guilt for letting his employees and family down. Taking one's life is viewed by many as a demonstration of social responsibility. From this point of view, the Japanese culture seems to harbour fewer inhibitions about ending one's life than other cultures.

**Jigai of Japanese Samurai**

Jigai is a form of ritual suicide practiced by samurai females which is performed by cutting the jugular vein with a knife (such as a tanto or kaiken) in order to avoid capture by ensuring a quick death. Before committing suicide, a woman would often tie her knees together so her body would be found in a dignified pose, despite the convulsions of death. Jigai was carried out to preserve one's honour if a military defeat was imminent, so as to prevent rape. Invading armies would often enter homes to find the lady of the house seated alone, facing away from the door. On approaching her, they would find that she had ended her life long before they reached her (Amdur, 2002).
Juramentado of Moros

Juramentado has been described in Moros of Philippines who followed Islam and considered Christians as evil (Andriolo, 1998). Although Islam condemns self-killing, death at a Christian's hand was equivalent to a martyr's death. A person who wished to die because of humiliation, marital or other difficulties would choose a unique method of death. He would swear an oath to go to a place where Christians were in majority. There he would kill as many Christians as he could before he finally got killed by them.

Suicide out of revenge in Greeks and Romans

This unusual type of ritual suicide was resorted to by an individual who wanted to take revenge on those held responsible for one's personal misery, specifically when the suicide suffered an offense that could not be brought for justice. Killing oneself in front of the suicide's intimidator was the only means of retribution for the powerless. Marie Delcourt compiled several anecdotal evidences dating as far back as ancient Greece depicting such acts of suicide. In one such interesting myth, the orphan Charila asked for support of the king of Delphi who refused her prayers and denigrated her. Charila hanged herself at the door of the king and thereafter the entire country was hit by famine and infertility. Expiatory sacrifices were planned to invoke the curse of the dead orphan. Suicide out of revenge was often accompanied by a curse pronounced against both the individual held responsible for the offense, and the community that was unable to prevent it or punish the offender (Preti, 2007).

In Sophocles' drama, Ajax, the protagonist, curses Agamemnon before committing suicide, as he held him responsible for the judgment that assigned Achilles' weapons to Ulysses. Then he extends the curse to the entire Greek army as the community of soldiers is blamed for allowing such an unfair sentence to hold sway by remaining silent.

Among the Romans, suicide out of revenge was known as the execratio. It included the curse pronounced by the lover against the unresponsive beloved, against the persecutor for legal reasons or debt, or against a group held guilty of some religious or political offense (Grisé, 1982; van Hooff, 1990). On every occasion, the individual who was expected to show some form of reciprocation remained unfazed, and the suicide was intended to punish the offender and at the same time, to denigrate him before the whole community. In today's world some acts of politically-motivated suicide have shown resemblance to suicide by execratio. In ancient times, the execratio was believed to unleash magic forces in which the spirit of a dead person could cause damage to individuals and the community. On the basis of the belief in the power of ghosts to harass and burden others, the threat to commit suicide was often used in ancient times to get one's own way.

Self-decapitation of Mayans

Ritual suicide by self-decapitation has been described in Mayan rulers (Robicsek, 1981). Such acts were performed by the members of the highest nobility among the Classic Maya. Bloodletting from the carotids by opening the sides of their necks with a blow from an axe or a puncture from a knife seems to be a special mode of auto-sacrifice. It appears that the auto-sacrifice constituted either a part or the central theme of a ritual dance, which is indicated by their body positions seen on the pictures, especially the raised heels of the principal actors and their companions (Robicsek, 1981). The behavioural patterns were of three varieties:

1. Completely severing their carotids and committing an act of suicide on one's free will.
2. Offering blood from carotids followed by institution of precautionary measures such as application of medications to partially slit carotids.
3. Imposed suicide by offering blood from carotids without applying necessary aid resulting in death.

CONCLUSION

Ritual suicide has several forms that are practiced in diverse cultures across the world. Nevertheless, there is a great overlap in the reasons underlying these ritual suicides. For example, the practice of jigai in Japan has some resemblance to the practice of jauhar in India. In order to save their honor following defeat, women committed suicide. Ritual suicides appear as reflections of the beliefs, values and customs of various cultures.

REFERENCES


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ABSTRACT

Background: Agriculturist has high rate of mortality in any industry. In India farmers' suicide has been a burning issue for more than two decades now. The aim of the study was to see what leads to suicide among farmers of the state of Kerala.

Material and Method: The authors performed a case control psychological autopsy analysis of 166 successive suicides in Wayanad an Agrarian district in Kerala examining the major psycho-socio-demographic profile, details regarding the suicide, retrospective psychiatric diagnosis, profile life events using the relevant tools controlling the age, sex, marital status and monthly income.

Results: The victims were more likely to be staying in rented houses, no own land or cultivation, migrated, with marital issues, staying separately, and had unsatisfactory relationship with family members. Farmers had debt from private money lenders and individuals, had past suicidal attempts and family history of alcohol dependence. They had significantly higher score for total life events. 33% of the victims were alcohol dependent while depression occurred in 28% of the victims. Majority of the farmers committed suicide by hanging followed by organophosphorous poisoning. 38.5% had expressed suicidal intent prior to attempt, 30.2% had consumed alcohol at the time of attempt. 75.7% had chosen their house or premises for attempt. The findings of this study are discussed with special relevance to Indian context.

Key Words: Farmers, suicide, psychological autopsy, attempt

INTRODUCTION

Despite the popular image of farming as a peaceful and healthy way of life, agriculture has the highest rates of mortality in any industry (Murdy & Carroll, 2000). In India farmer's suicide has been reported from various states like Punjab, Maharashtra, Andhra Pradesh, Kerala and various other states where there are varied cultural practices and farming patterns (Mishra, 2006). Physical stressors, hazards of farm environment, declining trends of trade of agricultural products, volatile commodity markets, limited availability of farm employment, growing cost of machinery and production, loss of farm livelihood due to crop failure, ever increasing rate of alcohol dependence, depression and the influence of migration are the reasons for this alarming rate (Fraser et al, 2005).

For the last ten years Wayanad, a tiny hill district in Kerala famous for its spices and coffee plantations has reported a higher suicide rate above 30 per 100,000 by distressed farmers-a phenomenon that is becoming increasingly commonplace in rural India as a result of implementation of free market economic policies (SCRB, 2009). The drastic fall in the price of agricultural products, ever increasing rate of alcoholism, depression and the influence of migration are speculated as the reasons for high rate of suicides among the farmers who dominate this district. Hence it is necessary to study the psychosocial factors of suicide which operate in this place for formulation of suitable remediable measures. Considering the paucity of such studies especially among farmers the present study was undertaken to identify and to understand the role of psychosocial factors like psychopathology, life events, and socio-economic factors leading to suicide in this agrarian district.
MATERIAL AND METHOD

Salient features of Wayanad District

The total geographical area of Wayanad is 2131 sq.km, and its population is 7,86,627. The male and female population is 3,93,397 and 3,93,230 respectively. The female-male sex ratio is 1:1. The density of population is 369 per sq.km (Kerala Census, 2001). The literacy rate is 85.52 per cent. Wayanad is the most backward district in Kerala. It is only 3.79% urbanized. Ninety per cent of its population depends upon agriculture for sustenance. There are 40,129 farmers, 74,813 agricultural labourers, and 17,413 plantation labourers in this district. Another 37,267 people earn their livelihood from animal husbandry and forest produce (District Project-Wayanad, 2001). The district has highest tribal population, about 1.25 lakh, constituting 17 per cent of the total population. The major crops grown here are coffee, pepper, tea, cardamom, areca-nut etc. Besides cash crops, the most important crop in the district is rice.

Wayanad has a large settler population. There were large scale migrations from southern Kerala in the early 1940s. Wayanad has a small Jain community consisting of Gowders who came from Karnataka in the 13th century. The Nairs from Kottayam dynasty made an entry in the 14th century. They were followed by Muslims constituting one fourth of population. Almost all sections of Christianity are well represented constituting another one fourth of population. Hindus contribute to the rest of the population. A notable feature of life in Wayanad is that it is touched to its very roots by the operation of the nationalized, commercial and cooperative banks. The branches of these banks located in the remote areas of the district have a busy time during the marketing time of cash crops.

Study Sample

Cases

All completed suicides from 1st January to 31st June in (2004) reported by Wayanad District Crime Record Bureau were analyzed in detail using a specially designed questionnaire. Two experienced psychiatrists (S.K. and A.K.) interviewed the relatives of victims and controls by visiting them at their residence. The interviews were carried continuously without any selection bias. However interview could be done only if the deceased person had a family member or a relative who provided suitable data. Out of 180 suicides reported, 14 cases could not be traced due to faulty address. Cases were traced through the police stations. Homes of the suicide victims were directly visited 30 days after the suicide but within 90 days. After establishing rapport, general explanation was given revealing the specific objectives of the study and informed consent was obtained.

Controls

Controls were those living in the same neighborhood, same sex, marital status and within the same monthly income range (Less than ₹ 2000, 2001-5000 and above 5001 per month). The age of the control was matched to that of the victim within the range of ±2 years. Controls were registered within three months for the corresponding cases.

Informants

The information about the victim and control was obtained from key informant. The key informant was a close relative who had been living with the deceased or control for minimum two years. The key informant’s interview was the main interview and all instruments were used in the main interview. The key informant was spouse in 50% of cases and 49% controls, followed by mothers in 22% and 24% of cases and controls, respectively. The key informants in 90% cases and 89% controls had been living with the subject for more than three years. The other sources of information were other informants, police records, postmortem reports, medical and psychiatric reports if available. If there was regular physical or mental health problem, a contact telephonic interview was conducted. Changes in the behaviour of the deceased weeks prior to death were explored with the informants; also whether there was any reference to self-destructive behaviour or plans. Data about somatic disease was also obtained.

Instruments

1. Personal Data Sheet: A semi structured questionnaire was used for both the victims and controls. The questionnaire was divided into 11 sections as below:
1. Demographics
2. Socio-economic status
3. Marital issues
4. Family details
5. Type of house
6. Liabilities
7. Losses within 1 year
8. Physical problems
9. Psychological problems
10. Previous suicide attempt
11. Current suicide attempt (only for victims).

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 is the highest stress score and zero denotes no perceived stress. Scale items are 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 be satisfactory. Life events were assessed within six months prior to the suicide or interview.

3. Structured clinical interview for DSM III R (SCID) Non Patient Version (Spitzer et al, 1992): SCID was used for making the Axis I diagnosis. The principal diagnosis was arrived by using interference procedure when there was co-morbidity.

Statistical Analysis

The data were analyzed using the SPSS 10.0 software kit (Bryman, 2001). Significance was acceptable if Confidence Interval (CI) reached 95%. Comparisons of quantitative variables were done using Paired t- test & Wilcoxon Signed Rank test and qualitative variables were done using McNemar Chi-Square test. Risk factor analysis in the victims was performed by Logistic Regression Analysis.

RESULTS

Table-1 shows the comparison of socio-demographic characters between the victims and controls. Mean age of the "victim" group was 40.45+17.07 years and that of "control" group was 41.15+16.29 years. Both the groups were represented by 124 males 42 females respectively. There was no significant difference in the mean age, sex, marital status, religion, education, occupation and the monthly income between two groups.

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Victims</th>
<th>Control</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>112</td>
<td>112</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>39</td>
<td>39</td>
<td>1.798</td>
<td>0.965</td>
</tr>
<tr>
<td>Widow/Widower/separated</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>118</td>
<td>111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>38</td>
<td>38</td>
<td>2.029</td>
<td>0.363</td>
</tr>
<tr>
<td>Muslim</td>
<td>10</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>29</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>79</td>
<td>62</td>
<td>8.78</td>
<td>0.067</td>
</tr>
<tr>
<td>High school</td>
<td>51</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher secondary and above</td>
<td>7</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>9</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmer</td>
<td>38</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>House wife</td>
<td>20</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>7</td>
<td>7</td>
<td>5.526</td>
<td>0.596</td>
</tr>
<tr>
<td>Daily wages</td>
<td>76</td>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Govt. Employee</td>
<td>13</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly income in rupees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2000</td>
<td>132</td>
<td>136</td>
<td>0.475</td>
<td>0.788</td>
</tr>
<tr>
<td>2001-5000</td>
<td>21</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 5000</td>
<td>13</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear family</td>
<td>111</td>
<td>118</td>
<td>0.690</td>
<td>0.406</td>
</tr>
</tbody>
</table>

Table-2 shows that victims were more likely to be staying in own houses, not having own land, no own cultivation, migrated, had marital issues, staying separately, and had unsatisfactory relationship with family members.

<table>
<thead>
<tr>
<th>Migrated</th>
<th>Victims N=166</th>
<th>Control N=166</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of house staying</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own house</td>
<td>125</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ancestral house</td>
<td>25</td>
<td>32</td>
<td>8.158</td>
<td>0.017*</td>
</tr>
<tr>
<td>Rental</td>
<td>16</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own land</td>
<td>111</td>
<td>166</td>
<td>65.92</td>
<td>0.000***</td>
</tr>
<tr>
<td>Own cultivation</td>
<td>60</td>
<td>69</td>
<td>1.027</td>
<td>0.311</td>
</tr>
<tr>
<td>Social contact</td>
<td>164</td>
<td>164</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Married more than once</td>
<td>11</td>
<td>11</td>
<td>0.002</td>
<td>0.969</td>
</tr>
<tr>
<td>Dowry problems</td>
<td>67</td>
<td>71</td>
<td>0.355</td>
<td>0.552</td>
</tr>
<tr>
<td>Marital issues</td>
<td>42</td>
<td>41</td>
<td>1.785</td>
<td>0.000***</td>
</tr>
<tr>
<td>Staying separately</td>
<td>29</td>
<td>17</td>
<td>3.838</td>
<td>0.050*</td>
</tr>
<tr>
<td>Family problems</td>
<td>75</td>
<td>48</td>
<td>9.42</td>
<td>0.002**</td>
</tr>
<tr>
<td>Unsatisfactory relation</td>
<td>28</td>
<td>11</td>
<td>7.836</td>
<td>0.005**</td>
</tr>
</tbody>
</table>

*p is significant at <0.05 level, ** p is significant at <0.01 level, *** p is significant at <0.001 level
Table-3 shows that significant number of victims had debt from private money lenders and individuals, past suicide attempts, more than one attempt in the past and family history of alcoholism. Comparison of life events between the two groups showed significantly higher score for total life events, undesirable, desirable, personal and impersonal life events in the victims (Table 4).

### Table 3: Psychosocial stress, financial difficulties in the sample population

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Victims</th>
<th>Control</th>
<th>$\chi^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for financial loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural disasters</td>
<td>62</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business loss</td>
<td>3</td>
<td>3</td>
<td>0.2196</td>
<td>0.700</td>
</tr>
<tr>
<td>Hospital treatment</td>
<td>17</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt from Nationalized banks</td>
<td>36</td>
<td>49</td>
<td>2.382</td>
<td>0.123</td>
</tr>
<tr>
<td>Debt from cooperative banks</td>
<td>49</td>
<td>27</td>
<td>0.04</td>
<td>0.948</td>
</tr>
<tr>
<td>Debt from private money lenders</td>
<td>23</td>
<td>11</td>
<td>4.327</td>
<td>0.038*</td>
</tr>
<tr>
<td>Debt from individuals</td>
<td>37</td>
<td>18</td>
<td>7.209</td>
<td>0.007**</td>
</tr>
<tr>
<td>Physical illnesses</td>
<td>36</td>
<td>33</td>
<td>0.165</td>
<td>0.685</td>
</tr>
<tr>
<td>Past suicide attempt</td>
<td>39</td>
<td>9</td>
<td>21.919</td>
<td>0.000***</td>
</tr>
<tr>
<td>More than 1 suicide attempt</td>
<td>22</td>
<td>2</td>
<td>26.876</td>
<td>0.000***</td>
</tr>
<tr>
<td>Family H/O suicide attempt</td>
<td>28</td>
<td>12</td>
<td>5.055</td>
<td>0.047</td>
</tr>
<tr>
<td>Family H/O alcoholism</td>
<td>46</td>
<td>22</td>
<td>10.652</td>
<td>0.001**</td>
</tr>
</tbody>
</table>

Table 4: Comparison of life events in the sample population

<table>
<thead>
<tr>
<th>Factors</th>
<th>Victims</th>
<th>Control</th>
<th>Mean Rank</th>
<th>Mean Rank</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total score</td>
<td>1.7788</td>
<td>1.1969</td>
<td>0.002**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undesirable events</td>
<td>197.01</td>
<td>135.99</td>
<td>0.000***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desirable life events</td>
<td>178.45</td>
<td>154.55</td>
<td>0.013*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impersonal events</td>
<td>179.92</td>
<td>153.08</td>
<td>0.010**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal events</td>
<td>191.88</td>
<td>141.12</td>
<td>0.000***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table-5: Psychiatric disorders at the time of death in the sample population

<table>
<thead>
<tr>
<th>Disorders</th>
<th>Victims</th>
<th>Control</th>
<th>Odds ratio</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>46</td>
<td>14</td>
<td>0.54</td>
<td>1.41-5.32</td>
<td>0.002**</td>
</tr>
<tr>
<td>Alcohol dependence/abuse</td>
<td>54</td>
<td>24</td>
<td>2.74</td>
<td>1.10-4.65</td>
<td>0.004**</td>
</tr>
<tr>
<td>Psychosis</td>
<td>7</td>
<td>3</td>
<td>1.17</td>
<td>0.37-1.94</td>
<td>0.833</td>
</tr>
<tr>
<td>Other psychiatric disorders</td>
<td>4</td>
<td>2</td>
<td>1.87</td>
<td>0.74-4.68</td>
<td>0.258</td>
</tr>
</tbody>
</table>

Table-6: Significant association in victims on logistic regression analysis

<table>
<thead>
<tr>
<th>Factors</th>
<th>SE</th>
<th>Significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration</td>
<td>0.366</td>
<td>0.003**</td>
</tr>
<tr>
<td>Marital Issues</td>
<td>0.474</td>
<td>0.031*</td>
</tr>
<tr>
<td>Loneliness</td>
<td>0.535</td>
<td>0.050*</td>
</tr>
<tr>
<td>Total LE score</td>
<td>0.002</td>
<td>0.000***</td>
</tr>
<tr>
<td>Impersonal LE</td>
<td>0.003</td>
<td>0.003**</td>
</tr>
</tbody>
</table>

Depression occurred in 28% of the victims and in 8.4% of the controls. 33% of the victims had alcohol dependence/abuse, while in the control being 14.4%. The prevalence of psychosis and other psychiatric disorders were negligible and comparable in both groups (Table-5). Table-6 shows significant risk factors for suicide in the victims on logistic regression analysis being migration, marital issues, loneliness, score of total life events and impersonal life events were significantly associated with suicide.

**DISCUSSION**

The present study shows significant differences in the psychosocio-demographic profile between the victims and the controls. Even after controlling potentially important confounding variables, such as age, sex, marital status, domicile and income, a significant number of victims had problems with their spouse and relatives and were staying separately. Looking at the physical assets, majority were marginal farmers without having own land or cultivation. This means that they had to lease out land from big landlords for a huge sum to strive in the farming industry. In addition to that for sustaining their agricultural activities majority had taken loan with high rate of interest from private money lenders and individuals. Probably the economic concerns, government bureaucracy and unexpected bad outcomes in the crop might have contributed to the suicidal tendencies of these victims. This could also be the reason for high number of past suicide attempts especially more than one attempts in the victims. Indebtness and monetary concerns have been reported to be the major reasons for suicide among Indian farmers (Behere & Behere, 2008; Behere & Bansal, 2009). Study on farmers suicide from Punjab showed that majority of victims were small and marginal farmers and loners (Behere & Bhise, 2009).

Suicide may be seen as an escape from an intolerable, although probably transient, period of emotional turmoil triggered by recent adversity. Recent life events may act as precipitant stressors which may make the person to take the step from suicidal thoughts to suicidal actions. Life events analysis in the present study substantiates this fact with significantly high score for total life events including personal, impersonal, desirable and undesirable in the victims. The more the score of life events more seems to be the risk for suicide. Thus suicide seems to
occur when there is cluster of events implying more abrupt failures of coping mechanisms. The dominance of migratory population might have probably aggravated the adverse life circumstances as they did not have adequate support from their relatives or friends due to social isolation either in terms of material or emotional. Probably the adversities at their homeland may be the reason for this group to migrate to a new place for better prospects. Much more to reduce the social support, a good number of victims were staying alone (23%) due to various interpersonal problems such as marital issues (34%), family problems (75%) and unsatisfactory relationship with family members (17%). Heikkinen et al (1994) found that 80% of victims had experienced a life event in the preceding three months. In the Indian context Hegde (1980) found that 37.5% of completed suicides had marital or domestic problems. Banerjee et al (1990) found that quarrel with spouse was the commonest cause for suicide in India.

The present study revealed that there were not only large number of alcoholic suicides (33%), many of them came from alcoholic families as shown with significantly high family history of alcoholism in the first degree relatives (28%). Many of them have started consumption of alcohol early and were under the influence while committing suicide (30%). Probably alcohol is the easiest available modality for farmers to attenuate the day to day hassles. High prevalence of alcoholism in the suicide victims in general have been noted in earlier studies from India (Vijayakumar & Rajkumar, 1999; Kumar, 1998). Murphy and Wetzel (1990) noted that suicide is a late phenomenon in the course of alcoholism. The relationship between alcoholism and suicide is complex. It could be because of biochemical factors as well as situational factors. A chronic alcoholic in the course of his illness is more likely to face variety of stressors, interpersonal difficulties, weakening of social support, all of which could push the person to suicide. It needs to be mentioned that social drinking is not a way of life in India. Pondicherry a state with a high rate of alcohol consumption also has the highest suicide rate (58%) of suicide in India (National Crime Report Bureau, 2009). Wasserman et al (1994) found that the suicide rate came down by 34% in 1984-1988 following strict restriction in the sale of alcohol in former USSR. Hence there is an urgent need to address this issue at the societal and individual level. Policies and programmes should be initiated for reducing the alcohol availability and consumption and at the individual level there should be better availability and follow up strategies for the treatment of alcoholics and their families.

In the victim’s the presence of depression within one month prior to suicide was proved in 33% of the cases, which is significantly higher that of the controls (14.4%). However only 20% of these cases had major depression and the rest of the diagnoses were adjustment disorders. Therefore it is beyond dispute that in a significant number of suicides there was only minor psychiatric problems in the background but ratios mentioned in the literature seem to be exaggerated. The relationship between suicidal behaviour and psychiatric diagnosis has always been a matter of debate pertaining to Indian context with low rate of psychiatric morbidity. The psychiatric diagnosis depends on the method of identification and classificatory system adopted. Western literature reports that about 90% of all those who commit suicide suffer from a psychiatric disorder. A recent study conducted by Zonda (2006) 98% of those who committed suicide had a diagnosable mental disorder. In a series of studies from Indian context, the predominant psychiatric diagnosis was adjustment disorder closely followed by major depression and alcohol abuse or dependence (Kumar, 2004; Vijayakumar, 2003). Several of these attempts were of impulsive type and were done within hours of some triggering factor. Even in the absence of significant psychiatric morbidity, farmers were more likely to report that life is not worth living compared with general population and suicide in them was an end point to a series of difficulties accumulated over time (Walker & Walker, 1998).

It is important to emphasize this as it is possible that in countries without well developed economies, as a consequence of incomparable poor financial conditions and less effective social network, there may be more psychosocial stress in the background of suicides. This may be a possible reason for an under representation of severe psychiatric disorders in the background of suicides from developed countries (Jacob, 2008). This disposition could be clarified by a larger comparative study. However keeping the possibility of a treatable psychiatric illness behind every suicide we must endeavor to recognize and adequately treat depressive disorders in the population, and we are skeptical that it will cause a significant "medical breakthrough" in the fight against suicide (Isacsson, 2000).
Exposure to suicidal behaviour is increasingly considered to be risk factor for suicide. In this study 34% had a first degree relative who had committed suicide and many of them (24%) were exposed suicidal behaviour in their life time. More notably 13.2% had more than one attempt in their life time. In addition to the imitative effects, the occurrence of suicide in the environment may produce a familiarity with suicide where suicide is perceived as an acceptable alternative response or option to life stressors (Vijayakumar, 2003). Hence support to the vulnerable members of the family after suicide is necessary.

In the present study majority committed suicide by hanging (49.7%) closely followed by poisoning (39.6%). Hanging and insecticide poisoning appear to be the favorite methods in Indian suicides (Hegde, 1980; Kumar, 2004; Sathyavathi & Murthy Rao, 1962; Nandi et al, 1978; Shukla et al, 1990). Factors like feasibility, accessibility, credibility and rapidity of action and degree of suicide intent could be behind the choice of method for committing suicide. The availability of method becomes more important when the act is impulsive in nature. In the present study, majority being farmers had an easy accessibility to insecticides. Reducing the availability of means to commit suicide is an important suicide prevention strategy especially the free availability of insecticides over the counter. A decline in farmers suicide was recorded after introduction of fire arm purchase in 1989 in England, indicating the role of easy accessibility of dangerous means and rate of suicide (Thomas et al, 2003).

This study reveals that many of those who committed suicide had communicated their distress and intent (38.5%). The proportion of suicides recorded as having given warning is likely to be an under estimate as there may be others to whom the subject might have expressed suicidal intentions. Many factors such as literacy, inhibition, subjective urge to communicate their wish and the nature of circumstances may be contributory for expressing the intention to die. In the study conducted by Sathyavathi & Murthy Rao (1962) only 6.89% had expressions to intention die. Ponndurai et al (1996) reported that 4.7% had written suicide notes prior to their attempts. Warnings have a preventive value in that one becomes aware of the problem, resources can be mobilized and preventive measures taken. Venue on suicide also has received little attention till date. Some time this aspect may offer a clue besides the individual's psychological states, about the intensity of suicide intent. In the present study majority had chosen their own house or house premises (75.7%) for the attempt. Similar findings have been reported earlier from India (Sathyavathi & Murthy Rao, 1962; Nandi et al, 1978). These observations may be reflective of our socio-cultural traditions.

CONCLUSION

Major Strengths and Limitations of the Study

Close comparability of cases and controls especially with regard to important psycho-socio variables like age, sex, martial status, financial status and domicile. Utmost precaution was taken in the selection of informants who know actually about the patient and had been staying with the subject for minimum three years in most of the cases and the interview was conducted within three months after suicide thus enhancing the quality of information. Structured instruments were used for establishing the psychiatric diagnosis and for assessing the key risk factors. The main limitation is that though this study was done at the field level and some cases might not have been registered by police and hence may not have included.

Remedial Measures

- Appropriate remedial measures to solve financial difficulties
- Guidance for scientific cultivation
- Early detection and management of psychological problems especially depression and alcoholism
- Crisis intervention centers to counsel suicide prone individuals
- Restriction of availability of poisons only for agricultural purpose
- Limit the potency of poisons only for killing insects
- Add offensive odour to poison to vomit out in case of oral ingestion
- Start poison treatment centers in major hospitals
- Mobile poison management units
- Training for doctors in poisoning management
- Ensure consultation with mental health professional for all individuals admitted with suicide attempt
• Strict control over media against sensationalizing of suicides
• More research for formulation of culturally specific suicide prevention strategies

REFERENCES

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VALIDATION OF THE GUJARATI VERSION OF THE EDINBURGH POSTNATAL DEPRESSION SCALE AMONG WOMEN WITHIN THEIR FIRST POSTPARTUM YEAR

Nimisha Desai1, Ritambhara Mehta2, Jaishree Ganjiwale3

ABSTRACT

Background: Postpartum depression is mostly undetected and has serious consequences for mother, child, partner and family. The objective of the study was to validate Gujarati version of Edinburgh Postnatal Depression Scale (EPDS) as a screening instrument to identify postpartum depression. It was a hospital based cross-sectional study. 200 women were randomly selected within their first postpartum year in well baby clinic, pediatric department of new civil hospital, Surat. Materials and Methods: Gujarati version of EPDS was given for self reporting. Then all women were interviewed by a psychiatrist (blind to their EPDS scores). DSM-IV diagnostic criteria for major depression were used. Various thresholds of the EPDS were compared against the standards of the DSM-IV. A receiver operator characteristic curve was drawn to obtain the best threshold value for screening. Internal reliability of EPDS was assessed using Cronbach’s alpha reliability coefficients. Results: 12.5% (25/200) women satisfied DSM-IV diagnostic criteria of postpartum depression. The optimal threshold for the EPDs was 10.5. This threshold had a sensitivity of 100% and a specificity of 98%. The area under the curve was 0.99. Cronbach’s alpha of the total scores was 0.87.

Key Words: Postpartum, depression, screening, validation

INTRODUCTION

Postpartum depression (PPD) is a variant of Major depressive disorder. For a diagnosis to be made, the woman must fulfill the DSM-IV criteria for Major depressive disorder (American Psychiatric Association, 2000). Although the DSM-IV states that the depressive episode begins within four weeks of birth, but this description is too limiting as its thought that postpartum depression can occur up to a year after childbirth (Gibson et al, 2009). A meta-analysis of studies mainly based in the developed countries found the incidence of postpartum depression to be 12-13% (O'Hara & Swain, 1996). In developing countries incidence of PPD was somewhat higher (Cooper et al, 1999; Patel et al, 2002).

Post-partum period is the time when the foundation of mother-child relationship is laid. Nature of the mother-infant relationship in the context of PPD is predictive of the course of child's cognitive, emotional and social development. PPD affects the emotional state of mothers and the quality of mother infant interaction (Peindal et al, 2004). Depressed mothers perceive infant as more difficult. Maternal depression causes disorders of mother-infant bonding which may contribute to maternal neglect or impulses to harm babies (Murry et al, 2003). Maternal depression affects child's Intelligence Quotient (I.Q.) and adversely affects child's cognitive and social development (Kumar, 1997). Indian studies also show PPD as a cause of significant psychiatric morbidity in mothers (Chandran et al, 2002) and malnutrition in infants (Patel et al, 2003).

Hence preventive measures like early intervention and identification can alleviate sufferings of the mother and minimize its potential harmful effects on the newborn. Many postpartum mothers have little knowledge about PPD and may not be aware that they are depressed; others may feel ashamed or guilty about being depressed in the context of having a new baby. Social stigma often blocks the patient coming to the doctor and apprehends of using medication during lactation makes the treatment difficult. There is no formal screening mechanism. Recognition falls to either obstetricians, who may only see the patients once at six week postpartum check up or paediatricians. Paediatricians may be the only medical workers that are routinely met by mothers during the first 12 months of the baby's life (Chaudron et al, 2004). Active screening at wellbaby visits increased detection of PPD and it is more feasible (Freeman et al, 2005).
The Edinburgh Postnatal Depression Scale (EPDS) is the most widely used screening questionnaire for PPD. It is a simple, user friendly self-report questionnaire that is specifically designed for detecting depression in the postpartum period. The EPDS was initially validated on a sample of 84 British women at 13 weeks postpartum and against research diagnostic criteria for major and minor depression. At a threshold score of 12.5 the EPDS was shown to correctly identify 86% of mothers suffering with postpartum depression (Cox et al, 1987). The EPDS has been validated in several languages and used successfully in detecting PPD in a number of countries. In India it was validated in Assamese (Kalita et al, 2008), Tamil (Benjamin et al, 2005) and Konkani (Patel et al, 2002). However validation studies have shown an important variability in sensitivity, specificity, optimal cut-off scores of the instrument in populations of several countries.

In recent systemic review of studies validating the EPDS in postpartum women, it was concluded that differences in study methodology, language of administration of the EPDS and diagnostic criteria used may have contributed to the heterogeneity of results (Gibson et al, 2009). The results from English-speaking populations separately from non-English speaking groups shows at a diagnostic threshold of 9-10 on the EPDS, there was no appreciable difference between the two groups for specificity (English language EPDS 51-89%; non-English language EPDS 44-97%). The sensitivity range was larger for the non-English papers (English language EPDS 82-100%; non-English language EPDS 60-100%). At a diagnostic threshold of 12-13, both the sensitivity and specificity ranges showed a more marked difference depending upon language of administration. Sensitivity values for English language EPDS studies ranged from 76 to 100% and for non-English language EPDS studies from 49 to 100%. Specificity values for English language EPDS papers ranged from 70 to 99%, whilst for non-English language EPDS studies the range was from 34 to 100 % (Gibson et al, 2009). Therefore validation of the EPDS in particular population is highly recommended before the instrument can be used for screening PPD.

Thus, the aim of the present study was to validate Gujarati translation of EPDS to identify PPD in Gujarati postpartum women, during their well baby visits up to postpartum period of one year. This is an important research as there are currently no validation studies using self-reported scales to identify postnatal depression in Gujarati population. It would present health professionals with the opportunity to incorporate the scale into their routine work and assist the identification of mothers thought to be at risk.

**MATERIALS AND METHODS**

The present study was conducted at Well-baby clinic of pediatrics department, New Civil Hospital, Surat. 200 women were randomly selected and requested to participate in the study.

**Tools**

*Edinburgh Postnatal Depression rating Scale (EPDS)*: EPDS was created specifically for postpartum women by Cox et al (1987) for screening of depression. It is a 10-item self-rated questionnaire used extensively for detection of PPD. It has been found to be having high sensitivity, specificity and accuracy. Each item offers a choice of four responses, ranging from 0 to 3 according to severity with the total score ranging from 0 to 30. A score of 12 or more on EPDS or an affirmative answer on question 10 (presence of suicidal thoughts) requires more thorough evaluation (Cox et al, 1987).

EPDS focuses on the cognitive and affective features of depression rather than somatic symptoms. EPDS assesses rating of anhedonia and reactivity. (I have been able to laugh and see the funny side of things; I have looked forward with enjoyment to things) self blame, anxiety, panic, coping (things have been getting on top of me), insomnia (due to unhappiness) sadness, tearfulness and self harm. Cut off point 12 has been suggested for PPD (Cox et al, 1987).

**Translation**: A Translation of the EPDS into Gujarati was followed by a back-translation into English by different researchers associated with the study. This procedure was done twice.

DSM IV Diagnostic criteria for Major depressive disorder (American Psychiatric Association, Diagnostic and statistical manual of mental disorders, 2000)

**Inclusion criteria**: All Gujarati postpartum women above 18 years who visited the well-baby clinic for the vaccination of their child up to postpartum period of one year.

**Exclusion criteria**: Women, with difficulty in communication due to language barrier (Non-Gujarati women).
Procedure

After a brief introductory phase informed consent from the subjects was taken after explaining the nature and purpose of the study. EPDS was given for self reporting. Care was taken to avoid the possibility of the mother discussing her answers with others while self reporting the scale. Illiterate Gujarati women were assisted by the research personnel to complete the questionnaire. Then all the women were interviewed by a psychiatrist (blind to their EPDS scores). Using semi-structured performa (Note: Semi structured performa was made by authors, it was not SCID. Validation of the EPDS was done against the Gold Standard DSM IV criteria for Depression) including demographic data, history, mental status examination data was gathered and DSM-IV diagnostic criteria for major depression were applied. Both EPDS and psychiatric interview were performed during the same day for each woman.

Statistical analysis

Descriptive statistics like mean, standard deviation (SD), proportions etc were used to present the distribution of the data. Sensitivity, specificity and predictive values (positive and negative) of EPDS Gujarati version with respect to DSM -IV criteria (gold standard) were calculated for validation. Also the internal consistency (Cronbach’s alpha) for the Gujarati version of EPDS was calculated. Receiver operating characteristic (ROC) curve analysis was done to find the cutoff value for the Gujarati version of EPDS using the software Statistical Package for the Social Sciences-version 14 (SPSS 14).

RESULTS

200 women were studied for their depression status during their wellbaby visits. The age ranged from 18-35 years with mean age of 23.84 years. All women were married at the time of interview and all spoke and understood Gujarati well. Majority of the women (85%) were Hindu. Around 30% women were illiterate, 50% of women belonged to joint families, 65.5% had urban background, 62% of the women had monthly income less than 3000 rupees and majority (89.5%) were unemployed (housewives) (Table 1).

The prevalence of major depression was 12.5% (25/200) through a structured clinical interview which included DSM-IV diagnostic criteria of major depressive disorder. The women in their first postpartum year were interviewed. 157 (78.5%) women were interviewed within their first 6 months postpartum period (Figure 1).

Table 1: Socio-demographic characteristics of the sample population

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Depressed n=25 (n %)</th>
<th>Non-depressed N=175 (n %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24 years</td>
<td>12 (48)</td>
<td>101 (57.8)</td>
</tr>
<tr>
<td>25-29 years</td>
<td>10 (40)</td>
<td>49 (28)</td>
</tr>
<tr>
<td>&gt; 30 years</td>
<td>2 (8)</td>
<td>18 (10.3)</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>2 (1.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 (1)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Education</td>
<td>9(36)</td>
<td>50(28.5)</td>
</tr>
<tr>
<td>1-7 standard</td>
<td>10(40)</td>
<td>48(27)</td>
</tr>
<tr>
<td>Higher secondary</td>
<td>6(24)</td>
<td>61(34.5)</td>
</tr>
<tr>
<td>Further qualifications</td>
<td>0</td>
<td>6(3.5)</td>
</tr>
<tr>
<td>(Courses after 10th)</td>
<td></td>
<td>6(3)</td>
</tr>
<tr>
<td>Degree/Graduate</td>
<td>0</td>
<td>7(4)</td>
</tr>
<tr>
<td>Higher Degree/Post Graduate</td>
<td>0</td>
<td>3(1.5)</td>
</tr>
<tr>
<td>Domicile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>15 (60)</td>
<td>116 (66.3)</td>
</tr>
<tr>
<td>Rural</td>
<td>10 (40)</td>
<td>59 (33.7)</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>19 (76)</td>
<td>151 (86.3)</td>
</tr>
<tr>
<td>Muslim</td>
<td>6 (24)</td>
<td>22 (12.6)</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>2 (1.1)</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td>12 (48)</td>
<td>88 (50.3)</td>
</tr>
<tr>
<td>Nuclear</td>
<td>13 (52)</td>
<td>87 (49.7)</td>
</tr>
<tr>
<td>Monthly income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1000</td>
<td>0</td>
<td>2 (1.1)</td>
</tr>
<tr>
<td>1000-2000</td>
<td>4 (16)</td>
<td>48 (27.5)</td>
</tr>
<tr>
<td>2000-3000</td>
<td>14 (56)</td>
<td>56 (32)</td>
</tr>
<tr>
<td>&gt; 3000</td>
<td>7 (28)</td>
<td>69 (39.4)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>22(88)</td>
<td>157(89.7)</td>
</tr>
<tr>
<td>Employed</td>
<td>3(12)</td>
<td>18(10.3)</td>
</tr>
</tbody>
</table>

Figure 1: Distribution of participants as per their time of interview
Table 2: Sensitivity and specificity for different thresholds of the EPDS against the standards of the DSM-IV

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>.50</td>
<td>1.000</td>
<td>0.17</td>
</tr>
<tr>
<td>1.50</td>
<td>1.000</td>
<td>0.29</td>
</tr>
<tr>
<td>2.50</td>
<td>1.000</td>
<td>0.45</td>
</tr>
<tr>
<td>3.50</td>
<td>1.000</td>
<td>0.58</td>
</tr>
<tr>
<td>4.50</td>
<td>1.000</td>
<td>0.69</td>
</tr>
<tr>
<td>5.50</td>
<td>1.000</td>
<td>0.79</td>
</tr>
<tr>
<td>6.50</td>
<td>1.000</td>
<td>0.82</td>
</tr>
<tr>
<td>7.50</td>
<td>1.000</td>
<td>0.9</td>
</tr>
<tr>
<td>8.50</td>
<td>1.000</td>
<td>0.95</td>
</tr>
<tr>
<td>9.50</td>
<td>1.000</td>
<td>0.97</td>
</tr>
<tr>
<td>10.50</td>
<td>1.000</td>
<td>0.98</td>
</tr>
<tr>
<td>11.50</td>
<td>.960</td>
<td>0.99</td>
</tr>
<tr>
<td>12.50</td>
<td>.840</td>
<td>1</td>
</tr>
<tr>
<td>13.50</td>
<td>.760</td>
<td>1</td>
</tr>
<tr>
<td>15.50</td>
<td>.650</td>
<td>1</td>
</tr>
<tr>
<td>17.50</td>
<td>.480</td>
<td>1</td>
</tr>
<tr>
<td>18.50</td>
<td>.360</td>
<td>1</td>
</tr>
<tr>
<td>19.50</td>
<td>.200</td>
<td>1</td>
</tr>
<tr>
<td>20.50</td>
<td>.080</td>
<td>1</td>
</tr>
</tbody>
</table>

A cut-off of 11.5 would decrease the sensitivity 96% while the specificity would be increased to 99%. Therefore as a screening tool for PPD using the Gujarati version of EPDS, 10.5 is the most suited cutoff with maximum sensitivity and negative predictive value.

**DISCUSSION**

In this study we included 200 married Gujarati women above 18 years of age as that is the legal age for marriage in India, within their first postpartum year. All women attending the well baby clinic came for vaccination of their child. They are not aware about their mental health status. Majority of women (78.5%) were within their first six months of postpartum period.

The prevalence rate of depression was found to be 12.5% through a structured clinical interview which included DSM-IV diagnostic criteria for major depressive disorder. O’ Hara and Swain (1996) did meta-analysis of 59 studies and estimated that the average prevalence rate of PPD was 13%. In the study of validation of the Turkish version of the EPDS among women within their first postpartum year, prevalence of depression was 14.4% through a structured diagnostic interview for DSM-IV axis I disorders (Aydin et al, 2004).

This study validated the Gujarati version of the EPDS using DSM-IV criteria as a gold standard for diagnosis of depression. The overall reliability of the scale was good. Cronbach’s alpha of the total scores was 0.87 for the Gujarati EPDS. The internal consistency coefficients are similar to those reported by Cox et al (1987) in the first validation study (0.87) for the English EPDS and other validation studies for Punjabi (Werret & Clifford, 2006) and Norwegian version of the EPDS (Berle et al, 2003).

The optimum threshold for screening was 10.5 using Receiver Operator Characteristics (ROC) method which is the preferred method to determine optimal cut-off values for a test. The area under the curve was 0.999. The ROC curve of a test displays the relationship between sensitivity (true positive rate) and one-specificity (false negative rate) in a sample. The ROC result indicates that EPDS has very good psychometric properties in discriminating between cases and non-cases.

Based on this score, 28 women were identified as cases of post partum depression. The prevalence of PPD amongst Gujarati women assessed by EPDS screening test is 14%. This finding is comparable with study of PPD at the University of Arizona.
wellbaby visits, which found 14.6% of participants were likely suffering from clinically significant depression at cut-off ≥12 (Freeman et al, 2005).

Measures of validity are not easy to compare as other validation studies used differing comparative standards. However, our calculated values for sensitivity (100%), specificity (98%), positive predictive value (89.29%) and negative predictive value (100%) are comparable with Nepalese study. Regmi et al (2002) reported EPDS threshold 13 compared with DSM-IV criteria as ‘gold standard’ test for depression in a group of postpartum Nepalese women, the sensitivity, specificity, positive predictive and negative predictive values were 100%, 92.6%, 41.6% and 100% respectively. Cox et al (1987) documented an optimal threshold for screening PPD as 12/13 with a sensitivity of 86% and a specificity of 78% for English version.

The Konkani version reported a threshold of 11/12 with a sensitivity of 85% and specificity of 92% respectively (Patel et al, 2002). The Assamese version reported cutoff score of 13 with a sensitivity of 88.89% and specificity of 85.37% (Kalita et al, 2008). The Tamil version reported the optimal threshold for the EPDS was 8/9 with a sensitivity of 94.1%, specificity of 90.2% and the area under the curve (AUC) was 0.921 (Benjamin et al, 2005). A recent systemic review of studies by Gibson et al (2009) validating the EPDS in postpartum women showed Sensitivity range from 34 to 100%, specificity from 44 to 100% and positive likelihood ratios from 1.61 to 78. They concluded that heterogeneity among study findings may be due to differences in study methodology, language and diagnostic criteria used. Therefore validation of the EPDS in particular population is highly recommended before the instrument can be used for screening PPD.

In this study the women who were EPDS positive but negative by DSM-IV criteria are difficult to categorize; they presumably fall in the continuum between 'normal' and 'depressed'. The scale was found fully acceptable to post-partum women and was completed within 5 minutes. The instrument was easy to translate and administer as it was brief and did not contain technical terms. It was observed that screening for PPD in the well-baby clinic was feasible and relatively well accepted by participants.

Thus, Gujarati EPDS is a good, easy to administer and quick screening tool for post partum women attending well-baby clinics who were unaware of their ill mental health.

Limitations
For generalization of the findings, an epidemiological study with larger sample size at the community level is desired. Other limitation of the study was use of semi structured performa which did not evaluate other psychiatric illnesses.

CONCLUSION
The Gujarati version of the EPDS has high sensitivity and specificity for the identification of PPD. The ease of administration of EPDS makes it a valuable tool for screening of PPD. It can be applied in routine well-baby clinic as well as postnatal clinic by health professionals to improve early detection, assessment and treatment for mothers with high scores.

REFERENCES


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Appendix 1

STUDY OF POSTPARTUM DEPRESSION

Name:

Age:

Education:

Domicile:

Religion:

Family: Joint/Nuclear:

Occupation:

Income:

No. of Total Deliveries:

Age and Sex of Younger Child:

Illness after Last Delivery:

Present complaints:

Past History of Psychiatric Illness:

Family History of Psychiatric Illness:

Time Since Delivery at the Time of Interview:

Time Since Delivery when First Manifestation began:

Total Duration of Symptoms:

Mental Status examination:

Criteria for Major Depression (DSM-IV)

A. Five (or More) of the following Symptoms have been present during the same 2 weeks Period and represent a change from previous functioning, At least one of the symptoms

Is either (1) Depressed Mood or (2) loss of interest or pleasure.

Note: Do not include symptoms that are clearly due to a general medical condition, or mood incongruent delusions or hallucinations.

1. Depressed mood most of the day, nearly every day.
2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day.
3. Significant weight loss when not dieting or weight gain.
4. Insomnia or hypersomnia nearly every day.
5. Psychomotor agitation or retardation nearly every day.
6. Fatigue or loss of energy nearly every day.
7. Feelings of worthlessness or excessive or inappropriate guilt nearly every day.
8. Diminished ability to think or concentrate, or indecisiveness.
9. Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, suicide attempt, a specific plan for committing suicide.

B. The symptoms do not meet the criteria for other psychiatric conditions.

C. The symptoms cause significant impairment is usual functioning at work, school and social activities.

D. The symptoms are not due to the direct effects of a substance or a general medical condition.

E. The symptoms are not better accounted for by bereavement due to the loss of a loved one.

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We are thankful to: J L Cox, J M Holden, R Sagovsky, Dept. of Psychiatry, University of Edinbargh.

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DISSOCIATIVE EXPERIENCES AND SOMATOFORM DISSOCIATION IN NON PSYCHOTIC PATIENTS ATTENDING OUTPATIENT SERVICES

Santosh. K. Chaturvedi¹, Preeti Sinha²

ABSTRACT

Objective: To assess the magnitude and patterns of both psychological and somatoform dissociative experiences in non-psychotic patients visiting the outpatient services of a psychiatric hospital in India and compare these with a non-clinical sample of healthy relatives, and to examine the relationship of these experiences with demographic and clinical variables. Method: The study took place in psychiatry out-patient setting of a tertiary health care centre and included 85 participants in clinical group and 52 participants in non-clinical group. These were assessed on Dissociative Experiences Scale-Revised version (DES) and Somatoform Dissociation Questionnaire (SDQ). Those in clinical group were also evaluated for ICD-10 based psychiatric diagnoses. Besides, a set of demographic and clinical data were collected independently. Results: Both psychological and somatoform dissociation (p=0.000 for DES and SDQ) were significantly greater in clinical sample. SDQ score significantly varied between various diagnostic groups (p=0.01 for Kruskal-Wallis H), with highest in Depressive spectrum disorder. There was a negative correlation of SDQ with education. Females were found to have higher SDQ scores than males (p= 0.015). No significant correlation was found with DES. Conclusion: The DES score (3.69 ± 4.58) was much less compared to other studies and similar picture was there for SDQ (25.21 ± 6.21), but to minor extent. There may be fundamental difference in magnitude and patterns of dissociation in India and other developing countries compared to developed countries. Analysis of frequency and duration of dissociative symptoms signified moderate severity of dissociation. The differences from past studies needs to be resolved with further research, especially focusing on cultural issues.

Key Words: Dissociation, somatoform dissociation, depression, depressive spectrum

INTRODUCTION

According to DSM-IV (American Psychiatric Association, 1994), the essential feature of dissociation is a disruption of the normal integrative functions of consciousness, memory, identity, or perception of the environment. Yet, patients with Dissociative Disorders (DD) report many somatoform symptoms, and many meet the DSM-IV criteria of somatisation disorder or conversion disorder and vice-versa (Nijenhuis et al, 1999; Sar et al, 2000a; Espirito Santo & Pio-Abreu, 2008; Sar et al, 2009). Pierre Janet, in his dissociation theory (Van der Hart & Friedman, 1989), also talked about both somatoform and psychological components. According to Nijenhuis, they represent phenomenologically different aspects of dissociation and are highly related but not identical phenomena (Nijenhuis et al, 1996).

There are studies from India focusing on dissociation in clinical setting. Study on out-patients showed that ICD-10 classification is more satisfactory for Indian patients with DD, thereby putting emphasis on somatoform dissociation (Saxena et al, 1986; Das & Saxena, 1991). On demographic pattern, most have supported female preponderance (Saxena et al, 1986; Deka et al, 2007; Chaturvedi et al, 2009) and younger age (Deka et al, 2007), and found dissociative symptoms as an important comorbidity with conversion disorder (Saxena et al, 1986). Recent retrospective study in 2009 reviewed cases of 10 years and noted dissociative disorder diagnosis in 1.5 and 15.0 per 1,000 out-patient (Chaturvedi et al, 2010). This chart review again indicates under-diagnosis in clinical situation. The prevalence of hysteria in rural area according to the study conducted in 1992 came out to be 3.15/1000 (Nandi et al, 2000). To our knowledge, there is no prospective study which looked into dissociation patterns or ICD-10/DSM-IV based DD in general population or clinical setting in India.
MATERIAL AND METHODS

Aims and Objectives

This study was conducted to assess the magnitude and patterns of both psychological and somatoform dissociative experiences in non-psychotic patients visiting the outpatient services of a psychiatric hospital in India and compare these with a non-clinical sample of healthy relatives, and to examine the relationship of these experiences with demographic and clinical variables.

Participants

All consecutive patients presenting first time to the out-patient department of psychiatry at National Institute of Mental Health And Neurosciences (NIMHANS), Bangalore on Wednesdays [the team’s clinic day] were screened for recruitment in the study. The non-psychotic patients in the age range of 18-65 years of either gender were approached, while those with acute psychosis or mania / acute agitation/ history of seizure disorder in the past five years/substance abuse (except nicotine) in the past five years/ hypoglycemic spells/ transient ischemic attacks or mental retardation were excluded. The diagnosis was made according to ICD-10 (Diagnostic criteria for research) by a qualified psychiatrist. Written informed consent was taken from those who agreed to participate. The participants in non-clinical group were recruited from the sample of healthy relatives who accompanied the patients and gave consent. The persons who have any psychiatric illness (assessed by clinical interview)/substance abuse (except nicotine) in the past five years/ hypoglycemic spells or transient ischemic attacks were excluded.

Procedure

Participants of both groups were asked to complete individually DES-II and SDQ-20 with the best of their understanding. Queries related to the particular items were clarified in the post-test period. Those who scored more than 0 in DES or more than 20 in SDQ were asked about frequency and duration of dissociative experience. Furthermore, a set of demographic and clinical data including patients’ sex, age, marital, family and vocational status, income, background, religion, other medical illness and details of psychiatric treatment were collected independently and blindly with regard to ratings of DES and SDQ. The psychiatric treatment was grouped into Antidepressant, Antipsychotics, Benzodiazepine, Antidepressant + Benzodiazepine and Mood stabiliser + Benzodiazepine.

Instruments

1. Dissociative Experiences Scale-Revised version (DES-II) (Carlson & Putnam, 1993): It is a self-report measure consisting of 28 dissociative experiences. These include experiences of amnesia, gaps in the continuity of awareness, depersonalization, derealization, absorption, and identity alteration. Each item is rated on a 0%-100% scale, based on percentage of subject’s life-time the given examples of dissociative experiences occur. And the sum of the 28 items, divided by 28, gives total score ranging from 0 to 100. It showed good convergent validity with other dissociation questionnaires and interview schedules, good predictive validity and construct validity with high internal consistency (Dubester & Braun, 1995; van Ijzendoorn & Schuengel, 1996).

2. Somatoform Dissociation Questionnaire (SDQ-20) (Nijenhuis et al, 1996): It is a 20-item self-report questionnaire. It measures phenomena such as sensory losses and alterations, motor problems, pain, anaesthesia, and loss of consciousness. Each item is rated on a five-point Likert scale. Higher total score indicates greater levels of somatoform dissociation. The scale has satisfactory psychometric characteristics, including internal consistency, concurrent validity, and construct validity (Nijenhuis et al, 1998; Nijenhuis et al, 1999). It is significantly differentiated among diagnostic groups in the order of increasing somatoform dissociation, even after controlling for general psychopathology (Nijenhuis et al, 1999).

Both the questionnaires were translated in Kannada, Tamil, Telugu and Hindi. These, along with the English version were used for the present study.
Statistical Analysis

Non-parametric methods were used as data didn’t follow normal distribution. Participants of both groups were compared on socio-demographic variables as well as scores of DES and SDQ by using chi-square (categorical variables) and Mann Whitney U (scale variables). Significance level was set at p<0.05. Kruskal-Wallis-H test was used to compare DES and SDQ scores of various psychiatric diagnostic groups followed by post hoc Least Significant Difference (LSD) test. Spearman’s rho correlation coefficient was calculated to examine any association of DES or SDQ scores with quantitative and ordered categorical demographic variables. Mann Whitney U test was used to compare groups based on sex, marital status, background and family type separately for SDQ and DES.

RESULTS

There were 85 patients (mean age = 36.4 years ± 12.1; range = 18-62) who participated in the study and 61% of them were females. Total 52 participants (mean age = 37.9 years ± 11.8; range = 18-65) completed the study in non-clinical group and 29% of them were females.

Both DES and SDQ scores were significantly greater (p=0.000) in clinical group (DES=3.69±4.58, SDQ=25.21±6.21) than non-clinical group (DES=0.19±0.68, SDQ=20.46±1.39). Clinical group had significantly more females than non-clinical group (p=0.000). As well, participants in clinical group were more frequently housewives (40% vs 21%, p=0.047 for occupation), while those in non-clinical group were more involved in business or higher occupation (33% vs 16%). The age, background, religion, marital status, family type, education, income and presence of other medical illness didn’t differ significantly between the two groups.

Depressive spectrum disorder group was the most common primary psychiatry diagnosis assigned to participant (62%). It included major depressive disorders, recurrent depressive disorders, dysthymia, and depressive episode of bipolar disorder. The distribution of other psychiatry diagnosis included somatoform disorder (16%), dissociative disorder (8%), anxiety-related disorder (8%) and OCD (6%). Treatment details followed the same pattern with 63% on only antidepressant and additional 27% on combination of antidepressant and benzodiazepine. Comparison of DES and SDQ scores between various diagnostic groups revealed significance only for SDQ (see table-1). Post hoc LSD comparisons indicated that persons with depressive spectrum disorder scored significantly higher than those with anxiety related disorder or OCD on SDQ.

<table>
<thead>
<tr>
<th>Measure</th>
<th>DSD</th>
<th>SD</th>
<th>DD</th>
<th>ARD</th>
<th>OCD</th>
<th>Kruskal- Wallis H</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDQ score</td>
<td>26.04±6.46</td>
<td>25.86±6.3</td>
<td>124.43±6.6</td>
<td>21.14±1.08</td>
<td>20.40±0.89</td>
<td>13.27</td>
</tr>
<tr>
<td>DES score</td>
<td>4.25±5.09</td>
<td>3.11±4.04</td>
<td>2.25±2.1</td>
<td>1.07±1.08</td>
<td>4.29±4.40</td>
<td>3.387</td>
</tr>
</tbody>
</table>

*P<0.05 is statistically significant
Post hoc LSD (Least Significant Difference) for SDQ
DSD > ARD (p=0.044) and OCD (p=0.046)
Depressive spectrum disorder-DSD, Somatoform disorder-SD, Dissociative disorder-DD, Anxiety related disorder-ARD

In 59% of the subjects, dissociative symptoms lasted less than few minutes and in 28% people, it extended up to few hours. 35% of them had frequency of dissociation of 1-3/ month. 18% had dissociation with average of 1-3/6months and equal number had 1-3 episodes/ week. The frequency of dissociative symptoms was found to be positively correlated to DES (see table-2). It was also moderately correlated to duration of dissociative symptoms (spearman rho= 0.273, p=0.029).

By Spearman correlation analysis, there was negative correlation between education and SDQ (see table-2). On Mann Whitney U test, females were found to have higher SDQ scores than males (z= 2.438, p= 0.015). None of the demographic variables reached to significant correlation with DES score.

<table>
<thead>
<tr>
<th>Variable</th>
<th>SDQ (r)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.102</td>
<td>0.355</td>
</tr>
<tr>
<td>Education</td>
<td>-0.292</td>
<td>0.002***</td>
</tr>
<tr>
<td>Occupation</td>
<td>-0.13</td>
<td>0.244</td>
</tr>
<tr>
<td>Income</td>
<td>-0.19</td>
<td>0.861</td>
</tr>
<tr>
<td>Duration of dissociative symptoms</td>
<td>0.020</td>
<td>0.874</td>
</tr>
<tr>
<td>Frequency of dissociative symptoms</td>
<td>0.318</td>
<td>0.010**</td>
</tr>
<tr>
<td>Frequency of dissociative symptoms (for DES)</td>
<td>0.421</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

**P<0.01 is statistically significant, ****P<0.001 is statistically significant

DISCUSSION

The present study supports the presence of greater level of both psychological and somatoform dissociation in psychiatric out-patients than non-clinical population. The use of control, inclusion of both types of dissociation experiences in out-patient setting and its evaluation as the primary aim, and cross cultural comparison are some of its strengths. These have led to some important differences in results compared to past studies.

The mean DES score of our clinical sample was 3.69 ± 4.58 which is much less compared to other studies of both inpatient
Both highlight the moderate severity of dissociation in majority of them had 1-3 dissociative episodes per week to per month. Similarly, about half functioning of individual. Most of the people experienced study however, describes dissociation in terms of severity and various types of dissociative disorder. This description of dissociation in studies till now is related to the diagnosis and various types of dissociative disorder. This study however, describes dissociation in terms of severity of symptoms which is supposed to be related more to the functioning of individual. Most of the people experienced dissociation up to few minutes to few hours. Similarly, about half of them had 1-3 dissociative episodes per week to per month. Both highlight the moderate severity of dissociation in majority of individuals. Although DD was not the primary diagnosis in most of them, dissociation may be a cause of concern to many of them. It was also noted that those who had higher frequency of dissociative symptoms scored higher on SDQ. Since SDQ and DES also trap severity of dissociation along with number of symptoms, this may be the basis of finding its moderate correlation with frequency of dissociative symptoms. But, this needs to be explored further, as it does not explain the lack of correlation with duration of dissociation.

Though DES and SDQ ratings were low, the clinical group maintained clear distinction (p= 0.000) from non-clinical group for both psychological and somatoform dissociation. This was in keeping with the other studies (Sar et al, 2000a; Lipsanen et al, 2004; Espirito Santo & Pio-Abreu, 2008). There were two other significant differences between the two groups. Females outnumbered the males in clinical group and vice-versa in the other group. The reason for this could be the modest but significant correlation of female sex with SDQ scores, which was higher in clinical group. This higher ratio of females might be the explanation for the presence of more number of housewives in clinical group, leading to significant difference in occupation status of both groups.

Our third objective was to look for association of DES and SDQ with other variables. Here, it was noted that the participants who were females and less educated indicated higher scores on SDQ. The similar finding was observed in previous studies (see appendix-2) related to both out-patient setting (Espirito Santo & Pio-Abreu, 2008) as well as general population (Maaranen et al, 2004). Few studies have found correlation of SDQ with female sex only (El-Hage et al, 2002; Nijenhuis et al, 2002), but many other variables including education were not examined in these studies. Unlike our study, older age and low income were associated with higher SDQ in 2 studies (Sar et al, 2000; Maaranen et al, 2004). There are few studies related to both out-patient (Waller et al, 2000) and general population (Maaranen et al, 2005) where no association was found. These wide variations in the findings can be due to variation in size and universe of sample chosen, method of analysis (such as division into high and low SDQ (Maaranen et al, 2005), DD and Non-DD(Sar et al, 2000a), exclusion of DD(Waller et al, 2000)), primary aim of the study and lack of inclusion of many variables for analysis (El-Hage et al, 2002; Nijenhuis et al, 2002). In our study, this was one of the primary aims and hence, most of the variables were assessed for it. We tried to recruit all non-psychotic out-patients and analysis was done as a whole without any further division.
In our study, SDQ score significantly varied between different diagnostic groups. It was evident particularly for depressive spectrum disorder group whose SDQ score was greater than anxiety-related disorder group and OCD group. This is in contradiction to the findings of past studies (see appendix-2) where DD, CD and PTSD groups have exceeded the other psychiatry diagnostic groups including depressive disorder and anxiety disorder (Nijenhuis et al, 1999; Sar et al, 2000b; Amaral do Espirito Santo & Pio-Abreu, 2007; Espirito Santo & Pio-Abreu, 2008). This may be due to the different distribution of various psychiatric disorders in our study, compared to past studies. Or else, depressive patients in India have more dissociative symptoms compared to others. It is unlikely that these depressive patients appreciate their somatic symptoms wrongly as the dissociative symptoms. If this is the case, then somatoform disorder group should also have exceeded others in SDQ scores, which was not actually.

The other major finding was the absence of any significant finding in relation to DES. The result was negative for association with any socio-demography variable or psychiatry diagnostic group. Compared to other studies, DES scores in our study were very low and it might not have been possible to get significant result.

There are studies to indicate that dissociation is quite prevalent in general population (Mulder et al, 1998; Maaranen et al, 2004; Maaranen et al, 2005). But still, DD are among the under-diagnosed psychiatric disorders (Saxe et al, 1993; Horen et al, 1995; Foote et al, 2006). The dissociative processes is a critical element of not only dissociative disorder, but also of several complex psychiatric disorders that are equally difficult to treat effectively such as, post-traumatic stress disorder and borderline personality disorder. Dissociation also appears to underline many cases of intractable impulsive behaviours, such as self-harm, substance misuse and bulimia (Vanderlinden & Vandereycken, 1997; Zlotnick et al, 1999; Lochner et al, 2004). Hence, there is a need to understand dissociation further and apply it clinically.

The findings of this study need to be viewed in light of studies which were conducted in clinical settings to emphasize the relative importance of dissociation. However, most of the studies assessed the psychological dissociation and focused on in-patient setting (appendix-1). The larger clinical population in the form of out-patients has been relatively ignored (appendix-1). The studies assessing somatoform dissociation didn’t try to examine the profile of out-patient as a whole (see appendix-2) and focused on validity of SDQ or SDQ-5 in different languages (Nijenhuis et al, 1998; Nijenhuis et al, 1999; Sar et al, 2000b; Amaral do Espirito Santo & Pio-Abreu, 2007), childhood trauma (Wallier et al, 2000; Nijenhuis et al, 2002), general population (Maaranen et al, 2004; Maaranen et al, 2005) or specific psychiatry diagnostic group (Espirito Santo & Pio-Abreu, 2008; Espirito-Santo & Pio-Abreu, 2009). One study done by El-hage et al examined consecutively admitted out-patients, but focus of study was PTSD and validity of French version of SDQ (El-Hage et al, 2002). It is difficult to infer directly from them. However, association of various demography variables, childhood trauma and psychiatric comorbidity with somatoform dissociation extrapolated from them is shown in appendix-2. Similarly, appendix-1 shows the factors associated with psychological dissociation. The wide methodological differences in terms of different settings and population, sample size, structured interview, cut-off score of DES, and different types of control and varied aim of the studies might have caused wide range of results.

Few limitations need to be kept in mind while interpreting the above findings. The most important is application of translated version of SDQ and DES without testing its validity and reliability. There are so many different languages speaking patients coming to our out-patient department that it would have been a very big task of testing these questionnaires. Keeping this in mind, these translations were done by people expert in the respective languages. The use of structured interview like DDIS and SCID which would have validated our diagnosis, however, since, our aim was to study dissociation and not DD, these were not included. Trauma-related information which is an important part of dissociation could not be collected. To validate some of the findings such as association with psychiatric disorder, bigger sample size would have been appropriate.

CONCLUSION

Dissociation is an essential component of clinical presentation, particularly in depressive spectrum disorder in out-patient department, but may get overlooked. In this study, somatoform dissociation was found to be much more common than psychological dissociation and was associated with poor education and female sex. Majority of people had moderate severity of dissociation with occurrence of 1-3 episodes per month or week. These features are especially important in treatment-resistant patients and can be an important part of management. Some of its findings were contradictory to past studies and needs more studies to establish the dissociative profile of out-patients in Indian psychiatry setting and the role of culture.
REFERENCES


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Appendix

Appendix 1: Studies on Dissociation using DES among psychiatric patients

<table>
<thead>
<tr>
<th>Study</th>
<th>Place (Sample Universe)</th>
<th>DES</th>
<th>Structured interview</th>
<th>Control</th>
<th>Demographic factors</th>
<th>Co-morbidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ross et al (1991)</td>
<td>Canada (In-patients)</td>
<td>299</td>
<td>80 (DDIS + CI)</td>
<td>-</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>Saxe et al (1993)</td>
<td>USA (In-patients)</td>
<td>110</td>
<td>17 (DDIS)</td>
<td>17 (age and sex matched DES=5)</td>
<td>NC</td>
<td>MDD, PTSD, Substance abuse, BPD</td>
</tr>
<tr>
<td>Horen et al (1995)</td>
<td>Canada (In-patients)</td>
<td>48</td>
<td>14 (DDIS + SCID)</td>
<td>-</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>Modestin et al (1996)</td>
<td>Germany (In-patients)</td>
<td>207</td>
<td>207 (DDIS)</td>
<td>-</td>
<td>Younger</td>
<td>Borderline, schizotypal, antisocial &amp; dependent personalities</td>
</tr>
<tr>
<td>Tutkun et al (1998)</td>
<td>Turkey (In-patients)</td>
<td>116</td>
<td>21 (DDIS + CI)</td>
<td>19 (age and sex matched DES&lt;10)</td>
<td>Younger</td>
<td>Depression, BPD &amp; somatisation</td>
</tr>
<tr>
<td>Sar et al (2000)</td>
<td>Turkey (Out-patients)</td>
<td>150</td>
<td>20 (DDIS + CI)</td>
<td>18 (age and sex matched DES&lt;10)</td>
<td>NC</td>
<td>Depression, somatisation &amp; BPD</td>
</tr>
<tr>
<td>Gast et al (2001)</td>
<td>Germany (In-patients)</td>
<td>115</td>
<td>15 (SCID-D)</td>
<td>-</td>
<td>Absent</td>
<td>DD, Personality Disorder</td>
</tr>
<tr>
<td>Lipseran et al (2004)</td>
<td>Finland (In-patients)</td>
<td>34</td>
<td>34 (DDIS)</td>
<td>-</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Maaranen et al (2005)</td>
<td>Finland (General population)</td>
<td>1585</td>
<td>Not Done</td>
<td>Not Applicable</td>
<td>Younger</td>
<td>Depression &amp; suicidality</td>
</tr>
</tbody>
</table>
Appendix 2: Studies on dissociation using SDQ among psychiatric patients

<table>
<thead>
<tr>
<th>Study</th>
<th>Focus on</th>
<th>Sample Universe</th>
<th>Sample Size</th>
<th>Structured interview</th>
<th>Result</th>
<th>Control</th>
<th>Demographic factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nijenhuis et al (1998) Netherlands</td>
<td>SDQ-5 Out-patients (psychiatry diagnosis group)</td>
<td>31 (DD)+ 45 (successive OP pts)</td>
<td>-</td>
<td>DD (10%)</td>
<td>-</td>
<td>NC</td>
<td></td>
</tr>
<tr>
<td>Nijenhuis et al (1999) Netherlands</td>
<td>DD Out-patients + In-patients (psychiatry diagnosis group)</td>
<td>44(DD)+ 47(SD)+ 50(ED)+ 23(BPAD)+ 45 (successive OP pts)</td>
<td>23 (SCID-D)</td>
<td>DD&gt; DDNOS&gt; SD (including CD)</td>
<td>-</td>
<td>NC</td>
<td></td>
</tr>
<tr>
<td>Sar et al (2000) Turkey</td>
<td>Validity of SDQ-turkish Out-patients (psychiatry diagnosis group)</td>
<td>50 (DD) + 94 (non-DD)</td>
<td>50 (SCID-D)</td>
<td>DD&gt; Non-DD&gt; Control</td>
<td>175</td>
<td>Older, less educated, less income</td>
<td></td>
</tr>
<tr>
<td>Waller et al (2000) UK</td>
<td>Childhood trauma Out-patients (exclude DD)</td>
<td>72</td>
<td>72 (CI)</td>
<td>SDQ score b/w DD and Non-DD</td>
<td>-</td>
<td>Absent</td>
<td></td>
</tr>
<tr>
<td>Maaranen et al (2004) Finland</td>
<td>Link between both kinds of dissociation General population</td>
<td>1585</td>
<td>Not Done</td>
<td>High SDQ and DES- depression, poor social &amp; financial support</td>
<td>Not Applicable</td>
<td>Older, female, less education, unemployment</td>
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</tr>
<tr>
<td>Espirito Santo &amp; Pio-Abreu (2008) Portugal</td>
<td>DD Out-patients (psychiatry diagnosis group)</td>
<td>37 (DD)+ 26(CD)+ 59(SD) + 50(PTSD)+ 174(other)</td>
<td>346 (LEAD)</td>
<td>CD,DD, PTSD &gt; SD &amp; others</td>
<td>159</td>
<td>Females, Less educated</td>
<td></td>
</tr>
<tr>
<td>Espirito Santo &amp; Pio-Abreu (2009) Portugal</td>
<td>DD and CD Out-patients (psychiatry diagnosis group)</td>
<td>38 (DD)+ 26(CD)+ 40 (SD) +46 (others)</td>
<td>-</td>
<td>DD &amp;CD&gt; SD &amp; others</td>
<td>-</td>
<td>Absent</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations for above tables:
- BPAD- Bipolar Affective Disorder
- BPD- Borderline Personality Disorder
- CAPS- Clinician-Administered PTSD Scale for DSM-IV
- CD- Conversion Disorder
- CI- Clinical Interview
- DD- Dissociative Disorder
- DDIS- Dissociative Disorders Interview Schedule
- DID-Dissociative Identity
- EA- Emotional abuse
- ED- Eating disorder
- LEAD- Longitudinal Evaluation by Experts using All Data available
- MDD- Major Depressive Disorder
- NC- Not commented (statistical analysis not done)
- PA- Physical abuse
- PD- Pathological Dissociation
- PTSD- Post Traumatic Stress Disorder
- SA- Sexual Abuse
- SCID-D- Structured Clinical Interview for DSM-IV Dissociative Disorders
- SD- Somatoform Disorder
- TEC- Traumatic Experiences Checklist
MOBILE PHONE AND PSYCHOLOGY: DO THEY RUN PARALLEL OR THEY INTERSECT?

Sayani Datta¹, Deepshikha Ray²

ABSTRACT

Background: The use of the mobile phone has evolved from emergency use to daily use and from specific instrumental to more expressive communications. It has been suggested that use of new technologies always has subjective effects and can change the perception we have of our identity. In the backdrop of globalization and rapidly growing post-liberalized market, mobile phones and related technological gadgets have become dominant items of consumption for the Indians. It is very important to know how the subtle psychological constructs are affected by the pervasiveness of technology vis-à-vis mobile phones in daily life, changing priorities and perception of self in relation to this change. Methods: The study consisted of 100 young adults (50 Male and 50 Female) who had a minimum educational qualification of Higher Secondary and a mean age of 23 years (M=22.86). The participants were assessed on Mobile Usage Scale (constructed for the study), University College of Los Angles Loneliness Scale and Subjective Well-Being Inventory. Results: There exists significant difference between male and female young adults in terms of 'enjoyment' (p<.041), 'perceived safety' (p=.000), 'perceived autonomy and intrinsic motivation' (p<.032), 'loneliness' (p<.003) and 'subjective well-being' (p<.029). Male participants scored higher in 'enjoyment' and 'perceived autonomy and intrinsic motivation' and 'loneliness'. Female participants scored higher in 'perceived safety' and 'subjective well-being'. Conclusion: The findings were interpreted in the light of the dichotomy between the obvious benefits of technological advancement and the not so obvious yet crucial impact such advancement has on the subtle aspects of human psychology. Key words: Mobile Phone use, enjoyment, perceived utility, perceived safety, perceived autonomy.

INTRODUCTION

Technology, in particular, the mobile phone has bridged the gap between home and work situation. The mobile phone has been defined as "the most radiative domestic appliance ever invented" (Coghill, 2001). By extending the reach and immediacy of communication, the mobile phone has changed the scope of interpersonal interaction (Plant, 2000). Mobile phone is not only used as a communication tool for business and social purposes, but also as a symbol of status, security and identity. The direct connection to a person via a mobile phone not only affects the personalization potentials of mobile media content but also the personal relationships of users. With evolutions in mobile communications there has been a shift of the emphasis from place-to-place connectivity to person-to-person connectivity and emerging personalized social networks. Mobile devices enable a form of networked individualism, being in immediate and direct contact with one's social networks and shifting rapidly between them. Person-to-person connectivity can affect the intensity of relationships and the roles users take in social networks. Mobile communications and mobile services allow for more intensive forms of social interaction and instrumentality in social networks. Mobile communications also increases users' opportunities to demonstrate participation in several social networks maintaining different roles. Use of mobile phones have enabled instant, ubiquitous access to precise information to suit immediate needs thereby fostering or accelerating people's pursuit of their individual goals.

The use of the mobile phone has evolved from emergency use to daily use and from specific instrumental to more expressive communications. There is an increase in socio-emotional functions of mobile communications that affects the way we perceive and present ourselves in social networks. Identity
representation in social networks is one dimension which is affected by mobile communications. Mobile communications and its use have a lot to do with self-perception and influence on how others should perceive the self. Mobile communications’ use is related to self-perception and to influence on how others should perceive the self. It has been argued that as mobile phones are objects that are carried on or near the body, they become closely involved with the processes of self conscious display. However, from a psychological point of view the omnipresent effect of mobile technology need not be always evaluated positively. In other words, more communication does not necessarily lead to better communication. Mobile phones seem to fragment and isolate the self. Some researchers have focused on how mobile phones reduce people’s self reliance which in turn erodes ability to react adaptively to unpredictable encounters. According to Geser (2003), mobile phones can lead to blunting of development of certain social competencies. This is because the constant availability of external communication partners (as sources of opinion and advice) as mobile phones enable people to retain primary social relationships over distance. This affects people’s self-reliance, making them unable to operate alone and leaving them dependent on the mobile as a source of assistance and advice.

It definitely seems very far-fetched to relate the two concepts of loneliness and subjective well-being which describe one’s most private feelings with a concept as practical as mobile usage. Where loneliness, on one hand, refers to the feeling of unwanted solitude, subjective well-being on the other refers to an overall evaluation of one’s life. Considering the fact that mobile phones and the underlying technology has almost intruded into the social and psychological sphere of individuals who use them, it becomes necessary to determine how and to what extent individual users of mobile phones perceive themselves in terms of loneliness and wellbeing. With the advent of newer and more economically viable technology, the purchase and use of mobile phones and related accessories have become dominant consumer behaviour in India, irrespective of the diversity in social, cultural and economic backgrounds. The use of mobile phones among the Indians has inevitably impacted their social and self perceptions and redefining their priorities.

In the wake of globalization there has been a re-emergence of the process of exploring the diverse facets of self in relation to a rapidly changing society. Self perception in India has always been pluralistic; as determined by an individual’s relationship with others as well as individualistic; due to the uniqueness of individual experience. It thus becomes relevant to investigate how the long-term and persistent use of “Mobile Phone” is related to “Loneliness”, “Subjective Wellbeing” in young men and women.

**METHODOLOGY**

**Participants**

The participants were selected based on an inclusion and exclusion criteria. This was done based on the subjects' responses on an information schedule that focused on demographic information such as age, sex, education etc and also history of significant medical or psychiatric condition. The method of sampling was purposive. The subjects were selected from various parts from Kolkata. The participants were divided into two groups based on their sex. Each group consisted of 50 participants. All the subjects were of the age range of 20-25 years and had a minimum educational qualification of class XII. All the subjects had a mobile phone and they were using it for a minimum of six months. None of the subjects reported any history of significant medical or psychiatric illness or any disability.

The subjects were debriefed about the objectives of the study and were assured of confidentiality regarding their responses. Individuals who gave informed consent were selected as participants. In the present case, all the participants who were initially approached after screening on the basis of the inclusion and exclusion criteria voluntarily participated in the study. Thus participants comprised of 100 healthy young adults.

**Measures**

a) **Information Schedule**: Information schedule was prepared to collect the demographic data such as subject’s name, age, sex, address, contact number, educational qualification, occupation, religion, marital status, currently living with, history of loss of parent due to separation/divorce/death of a parent, number of siblings, number of members in the family, family income, history of significant physical illness, history of significant psychiatric illness, approximate number of hours and amount of expenditure on account of mobile phone, etc.
b) **Mobile Usage Scale**: Mobile usage scale was constructed for the purpose of this study using the rules given by Thurstone and Chave (1929). Mobile Usage Scale was operationally defined as the one assessing "degree to which young adults use mobile phone for utilitarian and hedonic purposes, for timely access to help and support, to nurture social relationships, to feel personal safety, and personal independence." The operational definition of four domains included in the scale are:

- **Enjoyment, Relaxation purpose**: the extent to which interaction with a mobile is enjoyable in its own right apart from any performance consequence.
- **Perceived Utility**: instrumental value attributed to the technology, easy access to information or support in form of resource and knowledge, convenience in reaching out to others, messaging, etc.
- **Perceived Safety**: timely access to support or help in case of need, improving the user's feeling of personal and family security.
- **Perceived Autonomy and Intrinsic Motivation**: the extent to which the individual attributes emotional and social value on mobile phone usage. The steps undertaken for the construction of the scale are as follows:

  Statements whose mean was ≥ 4 and standard deviation was ≤ 1.5 were included. Thus 33 were judged 'relevant' and 7 were rejected.

  There were 24 statements which were relevant but could not be placed in any domain. So they were again given to 5 judges with the instruction of ticking under that domain which they think is most appropriate for that item. Thus each of 24 statements was included in that domain which received maximum frequency of agreement for that item.

The final questionnaire was made consisting of 50 statements.

Based on available literature, 64 statements were made under the 4 mentioned domains of "enjoyment", "perceived safety", "perceived utility" and "perceived autonomy and intrinsic motivation".

The statements were given to 5 judges with the instruction of rating the items on a 5-point scale where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree and also to judge whether the items are relevant to be included in the specific domain.

Mean and standard deviation of the given ratings were calculated for each statement.

d) **UCLA (University College of Los Angles) Loneliness Scale**: The revised UCLA Loneliness Scale (Russell et al, 1980) was used as the measure of loneliness because of its strong internal consistency (alpha = 0.94), reliability (r = 0.79). This is a 20-item scale out of which ten are descriptive feelings of loneliness and ten are descriptive feelings of satisfaction with social relationships. Participants respond on a four point scale (3=often; 2=sometimes; 1=rarely; 0=never).

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The final questionnaire was made consisting of 50 statements.

### Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Reliability</th>
</tr>
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<tbody>
<tr>
<td>General well-being positive affect</td>
<td>0.87</td>
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<tr>
<td>Expectation-achievement congruence</td>
<td>0.65</td>
</tr>
<tr>
<td>Confidence in coping</td>
<td>0.81</td>
</tr>
<tr>
<td>Transcendence</td>
<td>0.51</td>
</tr>
<tr>
<td>Family group support</td>
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</tr>
<tr>
<td>Social support</td>
<td>0.51</td>
</tr>
<tr>
<td>Primary group concern</td>
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</tr>
<tr>
<td>Inadequate mental mastery</td>
<td>0.63</td>
</tr>
<tr>
<td>Perceived ill-health</td>
<td>0.64</td>
</tr>
<tr>
<td>Deficiency in social contacts</td>
<td>0.56</td>
</tr>
<tr>
<td>General well-being negative affect</td>
<td>0.58</td>
</tr>
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</table>

### Statistical Analysis

Descriptive statistics such as frequency, mean and standard deviation were computed. Paired sample t test was computed between young adult males and young adult females in terms of mobile usage (enjoyment, perceived utility, perceived safety, perceived autonomy and intrinsic motivation), loneliness, and subjective well being.

### RESULTS

The distribution of socio-demographic characteristics of male and female participants with regard to their educational qualification and marital status has been provided in Table 1a. It can be seen that all the male participants (100%) and all
the female participants (100%) were educated above Higher Secondary level (Class XII). 100% of male participants and 98% of female participants were unmarried. Chi-square test reveals that there was no significant difference between male and female participants in terms of educational qualification and marital status.

As can be seen from Table 1b, the mean age of the male participants was 22.86 years (S.D.=1.53) and the mean age of the female participants was 22.86 years (S.D.=0.97). t-test reveals no significant difference between male and female participants in terms of age.

To determine if male and female participants differ with respect to their responses in the mobile usage scale, t-test was used. The mean scores ± S.D., t-values and level of significance of the male and female participants in different dimensions of mobile usage scale have been provided in Table 2. As depicted in the table, male (Mean=22.84, S.D.=4.72) and female (Mean=22.12, S.D.=3.50) participants differed significantly on their responses in the domains of "enjoyment" (t=2.07, p<0.05). Significant differences were also seen between male (Mean=47.66, S.D.=7.63) and female (Mean=44.02, S.D.=9.06) participants on the domain of "perceived autonomy and intrinsic motivation" (t=2.17, p<0.05). In the domain of "perceived safety", significant difference was present between male (Mean=35.80, S.D.=4.48) and female (Mean=39.04, S.D.=3.90) participants (t=3.81, p<0.001). As is evident from the mean scores, male participants scored higher in the domains of "enjoyment" and "perceived autonomy and intrinsic motivation" whereas female participants scored higher in the domain of "perceived safety".

Subsequently, t-test was computed to determine whether male and female participants differed in terms of loneliness and experience of subjective well being. There was significant difference between male and female participants in terms of loneliness (Male: Mean=24.36, S.D.=8.18; Female: Mean=19.06, S.D.=9.31, t=3.02, p<0.05) and but not on Subjective Wellbeing (Male: Mean=84.32, S.D.=8.99; Female: Mean=88.30, S.D.=8.91; t=2.22, p>0.05). Male participants scored higher on loneliness and lower on subjective wellbeing as compared to females.

### Table 1a: Frequency and percentage of educational qualification and marital status of male and female young adults

<table>
<thead>
<tr>
<th></th>
<th>Males (N=50)</th>
<th>Females (N=50)</th>
<th>Chi-value</th>
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<td>Educational qualification</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>H.S.</td>
<td>0</td>
<td>0</td>
<td>2.041</td>
<td>.153</td>
</tr>
<tr>
<td>Above H.S.</td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
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<tr>
<td>Marital status</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
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<td>1</td>
<td>0.51</td>
<td>.660</td>
</tr>
<tr>
<td>Unmarried</td>
<td>50</td>
<td>49</td>
<td></td>
<td></td>
</tr>
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</table>

# H.S.= Higher Secondary

### Table 1b: Mean and standard deviation of age of male and female young adults

<table>
<thead>
<tr>
<th></th>
<th>Male (N=50) Mean±SD</th>
<th>Female (N=50) Mean±SD</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>22.86±1.53</td>
<td>22.86±0.964</td>
<td>22.86</td>
<td>0.960</td>
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</table>

### Table 2: Comparison between male and female in terms of mobile usage

<table>
<thead>
<tr>
<th></th>
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<th>Female N=50</th>
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<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoyment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>22.84±4.72</td>
<td>2.070</td>
<td>.041*</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>21.12±3.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived autonomy and intrinsic motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>47.66±7.63</td>
<td>2.173</td>
<td>.032*</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>44.02±9.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Utility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>57.86±6.14</td>
<td>1.440</td>
<td>.153</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>59.60±5.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>35.80±4.48</td>
<td>3.816</td>
<td>.000***</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>39.04±3.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile usage score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>164.16±16.46</td>
<td>0.112</td>
<td>.911</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>163.78±17.55</td>
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</tbody>
</table>

*P is significant at 0.05 level, ***P is significant at 0.001 level

### Table 3: Comparison between males and females in terms of loneliness

<table>
<thead>
<tr>
<th></th>
<th>Male N=50</th>
<th>Female N=50</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50</td>
<td>24.36±8.18</td>
<td>3.02</td>
<td>.003*</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>19.06±9.31</td>
<td></td>
<td></td>
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</table>

*P is significant at 0.05 level

### Table 4: Comparison between male and female in terms of subjective wellbeing

<table>
<thead>
<tr>
<th></th>
<th>Male N=50</th>
<th>Female N=50</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50</td>
<td>84.32±8.99</td>
<td>2.68</td>
<td>.32</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>88.30±8.91</td>
<td>2.22</td>
<td>.29</td>
</tr>
</tbody>
</table>

*P is significant at 0.05 level
DISCUSSION

There exists significant difference between male and female young adults in terms of 'enjoyment' ($p<.041$), 'perceived safety' ($p<.001$), 'perceived autonomy and intrinsic motivation' ($p<.032$) and 'loneliness' ($p<.003$). Male participants scored higher in 'enjoyment' and 'perceived autonomy and intrinsic motivation' and 'loneliness'. Female participants scored higher in 'perceived safety' and 'subjective well-being'.

Research reveals that women are social support providers more often than men (Belle, 1982; Fischer, 1982). Moreover, females consistently report seeking and receiving higher levels of emotional support than men do (Ashton & Fuehrer, 1993; Hirsch, 1979; Stokes & Wilson, 1984). Research consistently reveals that females find a greater number of family members support than males (Allen & Stoltenberg, 1995; McFarlane et al., 1981; Stokes & Wilson, 1984). Thus it is evident that females have a better ability to make adaptive use of interpersonal and social exchanges. Perhaps this can be attributed to the "gendered" socialization process where females are expected to be nurturing, compassionate, sensitive to feelings of others and emotionally expressive. For males, in contrast, cultivating the intimate and emotional aspects of social relationships is underemphasized; the masculine role is more focused on independence, competitiveness and self-reliance (Deaux & LaFrance, 1998). Thus the "masculine" patterns of socialization might be expected to produce feelings of loneliness and poor subjective well-being in males. As they do not approve expressing their fears, insecurities, need for succorance, they have to rely on external and more tangible objects.

Since its inception, society has been more stringent regarding rules for females as compared to males. These restrictions often pervade a person's perception of self, social learning and also on individuals' perception of the external world. Autonomy could be conceptualized by a combination of self-confidence and personal safety. If "perception of safety" can be conceptualized as complimentary to "perception of threat" then females are 'brought up' to fear the unknown more than males. With modernization, females have been able to come out of rigid rules, but perhaps they have not been able to unlearn the process of 'fearing' to be 'afraid of the new and the unknown'. Hence it may be logically assumed that along with their newly found independence, females have always sought to find something to rely on, in case of a sudden perception of threat. In this new age technological advancement, "Mobile Phones" now act as a 'safety buffer' for females. However it should be remembered that 'threat' may not always be physical but may also be 'socio-emotional' in nature. Hence safety requirement may also involve a demand for social support which is more asked for and received by women. In a study by Katz and Aakhus (2002) it was found that participants, usually female participants used their mobile to ask for help from parents especially when they were in a difficult situation. Rakow and Navarro's (1993) study focused on mothers using the mobile phone to parent children from remote distances. People actively used their mobile phones to contact family members and close friends (De Gournay, 2002; Ling, 2004; Lasen, 2005; Kim, 2006). Young Japanese mobile phone users were found to connect with people with whom they identified closely, such as family and friends (Matsuda, 2005). Palen et al (2000) and Ling (2004) found that the mobile phone allowed parents and children to retain connections during periods of spatial distance. People preferred to use mobile to communicate with their family members, because with their voice contacts, they had more capacity to articulate personal emotions (Sawhney & Gomez, 2000). This obviously gave them much emotional support.

Thus, technological advancement has no doubt contributed to the betterment of lifestyle. In societies with relatively less technological advancement, improved technology has often served to facilitate access to tangible and intangible resources. However continuous involvement with a tangible gadget that creates a virtual world may often lead to estrangement from the apparently discrete yet subtle aspects of human psychological interaction. Studies have shown that uses of mobile phones are related to social isolation. The mobile phone provides a free choice for its user to isolate himself or herself to disconnect from one person for another person or one location to the other location (Fox, 2006). Mobile phone users have often been found to utilize their phone to avoid unwanted people. Cooper (2001) commented that mobile phone users created their own private space in public by avoiding the gaze of others and avoiding interaction. Thus mobile phone often allows users to make active choice regarding interpersonal exchanges. At the same time it makes an individual create their own private space, suiting their unique needs while disconnecting them from others. In this connection Harper (2005) and Koppoma (2000) also reported that adolescents make use of caller identification device to reject parents' mobile phone calls and often make excuses (e.g., out of battery, did not hear mobile phone ring) when they did not want to talk.
CONCLUSION

Thus the interface between an individual's psyche and the external world (in this case a technological gadget) consists of a two way process whereby, individuals' social learning and the collective influence of the society in which he has grown up influences how he/she perceives the utility of a technological gadget and to what extent he/she allows the tangible process to pervade into his/her intrinsic psychological processes.

REFERENCES


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DIFFERENCES AMONG MAJOR MENTAL DISORDERS IN DISABILITY, QUALITY OF LIFE AND FAMILY BURDEN: A SHORT TERM STUDY

Satabdi Chakraborty¹, Harpreet Mehar², Triptish Bhatia³, Smita N Deshpande⁴

ABSTRACT

Background: Major psychiatric disorders such as Schizophrenia (SZ), Bipolar Disorder (BPD) and Major Depressive Disorder (MDD) cause morbidity and impair activities of daily living to different extents. This results in deteriorated quality of life (QOL) for patients and burdens their caregivers. The aim of this study was to assess the relationship between disability and QOL of patients diagnosed with SZ, BPD and MDD and consequent burden on their family caregivers over a one month period. Material and Method: As part of a larger research project, consenting patients (N= 125) diagnosed with SZ (n=58), BPD (n=27) and MDD (n=40) were recruited. All subjects were assessed on disability using the World Health Organization-Disability Assessment Schedule (WHO-DAS) and Quality of Life-BREF (WHO-QOL-BREF) scale. Their caregivers were evaluated for perceived burden of care, using the Burden Assessment Schedule (BAS) for the last one month. A period of one month was selected to minimize memory bias. Scores were compared across different diagnostic groups on QOL, BAS and DAS. Results: No significant difference was found over the short term on disability and QOL scores among the three diagnostic groups. Family burden perceived by the primary caregiver was also similar. The caregivers of married patients reported more burden irrespective of the diagnosis. Key words: Quality of Life, burden, disability, schizophrenia, bipolar disorder, major depressive disorder

INTRODUCTION

Major mental disorders like schizophrenia (SZ), bipolar disorder (BPD) and major depressive disorder (MDD) lead to a great deal of morbidity and disability in developing countries (Patel & Andrade, 2003). BPD is the sixth leading cause of disability among illnesses worldwide (Murray & Lopez, 1996). MDD is the fourth leading cause of disease burden (Ustun et al, 2004)). All three disorders are complex, difficult to treat, and cause restrictions in the execution of psychological or social role functioning (Wiersma, 1996). Even after the acute phase has been treated, residual symptoms cause significant functional impairment.

While all three disorders lead to disability, the degree of disability may not be comparable. Studies reported greater disability including social in SZ than in BPD or schizoaffective disorder (Bowie et al, 2010; Bottlender et al, 2010).

Quality of life (QOL) measures are potentially useful methods to demonstrate the impact of mental illnesses and the possible benefits of therapeutic interventions (Berlim & Fleck, 2003). Diagnosis does not predominantly play a role in QOL. QOL depends on extra-psychiatric variables, principally marital status and income (Kovess-Masfety et al, 2006). Disability leads to deteriorating QOL of both patients and their family members, and increases caregiving burden on the latter. QOL, which is a subjective construct, also varies from person to person. While some authors reported better QOL in BPD than in SZ (Chand et al, 2004), others differed. QOL was markedly impaired in patients with BPD, even when clinically euthymic (Michalak et al, 2005). On the other hand, MDD patients may report poor QOL even after the episode has resolved (Angermeyer et al, 2002), sometimes due to insomnia (Sunderajan et al, 2010).
Providing care to family members dealing with chronic illness results in feelings of burden or strain for caregivers (Sales et al, 2009). In SZ, severity of psychotic symptoms and degree of disability are related to higher levels of family burden (Ochoa et al, 2008). Burden was higher when patients' symptoms and disability were more severe, especially for BPD ((Magliano et al, 2009) where family members experienced more burden than with MDD (Chakrabarti et al, 1992). Caregiver-related factors such as emotional over-involvement and burden of care are also associated with a reduction in patients' Quality of Life (Cotton et al, 2010).

In the present study, an attempt was made to compare the degree of disability and Quality of Life among three diagnostic groups, SZ, BPD and MDD and to evaluate family burden perceived by their care givers over a short period of time (one month). This period was chosen to control for memory bias. All three groups were recruited simultaneously.

METHODOLOGY

The study was conducted between May, 2006 and August, 2009 in the Department of Psychiatry, PGIMER, Dr. Ram Manohar Lohia Hospital (RMLH), New Delhi, a tertiary care government hospital which offers free services. This sample forms a subgroup from a larger study on effect of yoga in major mental disorders.

After approval by the Ethics Committee (RMLH), subjects fulfilling inclusion criteria were informed about the study by their treating physicians and referred to research workers who obtained written informed consent after detailed study description. Those who met DSM IV criteria (APA, 1994) for SZ, BPD and MDD were eligible for inclusion. Those with organic causes, substance abuse or below average intelligence were excluded.

Thereafter, they were interviewed using the Diagnostic Interview for Genetic Studies (DIGS) (please see below), usually along with the caregiver (a family member). Some of these patients were coming for yoga daily along with family members and some for psychoeducation to family members. Hence, either a family member or a caregiver was available. While subject completed the QOL and the DAS, the caregiver completed the BAS himself or herself, away from the subject. All the psychiatric diagnoses were made by consensus diagnosis after presentation and discussion by the research team (psychologists and psychiatric social workers) along with board certified psychiatrists. All participants were between 18-60 years of age.

The period of time considered for all three questionnaires was last 30 days only. DAS measures the disability of the patients for the last one month as per DAS manual. The same time period was decided for both BAS and QOL reference period, to match with DAS. Moreover, one month is the period where patient and care givers can recall all the details better. Therefore, for operational purposes, one month was taken as the period of study. Total sample consisted of 125 subjects, SZ (N=58), BPD (N=27), MDD (N=40).

Tools

Diagnostic Interview for Genetic Studies (DIGS): Originally developed by Nurnberger et al (1994) and translated into Hindi by Deshpande et al (1998), the DIGS is a semi-structured clinical interview especially constructed for assessment of major mood and psychotic disorders and their spectrum conditions. The Hindi version (Deshpande et al 1998) was used for the index study. The duration of illness for all three diagnostic groups was measured by OPCRIT Question No. 2 from the DIGS. The total duration of illness was measured in weeks.

Global Assessment of Functioning Scale (GAF) (Endicott et al, 1976) (part of the DIGS): The Global Assessment of Functioning Scale is a 100-point scale that measures a subject's overall level of psychological, social, and occupational functioning on a hypothetical continuum. This is divided into ten quartiles of 10 scores each for simplicity. Global Assessment of Functioning is used for reporting the clinician's judgment of the individual's overall level of functioning and for carrying out activities of daily living. This information is useful in planning treatment and measuring its impact, and in predicting outcome. The GAF is a part of the DIGS. GAF scores were calculated for the last month, as per instructions in the DIGS. The scores were discussed and finalized after presenting DIGS information in diagnostic meetings.
**WHO Quality of life-BREF (Hindi) (Saxena et al, 1998):**
The WHO-QOL-BREF contains a total of 26 questions. These questions cover four domains of quality of life. These are: physical health, psychological health, social relationship and environment. In addition, two items from the overall quality of life and general health facet were included.

**WHO Disability Assessment Schedule II (Janca et al, 1996):**
The WHO-DAS II provides a profile of functioning. The items are measured by a five-point likert questionnaire. The questions are: understanding and communicating with the world (cognition), moving and getting around (mobility), self-care (attending to one’s hygiene, dressing, eating and staying alone), getting along with people (interpersonal interactions), life activities (domestic responsibilities, leisure, and work), and participation in society (joining in community activities).

**Burden Assessment Schedule (Thara et al, 1998):**
BAS is a 40-item structured instrument to assess both subjective and objective burden on the caregiver. Each item is rated on a three-point scale, "not at all, to some extent, very much". The items of the schedule are categorized under nine domains: 'spouse-related factors; 'physical and mental illness'; 'external support; 'caregiver routine; 'support of patient'; 'taking responsibility'; 'other relations; patient's behaviour and caregiver's strategy. Although the manual does not mention calculating total burden, to obtain a single score for comparison, we calculated total BAS score by adding all individual domains.

**Statistical Analysis**
We used descriptive statistics and univariate ANOVA for comparing three diagnostic groups for demographic and clinical variables and different domains of QOL, BAS and DAS (Table-1). Regression analyses were used separately for analyzing association between different clinical and demographic variables with four domains of QOL. The independent variables included were gender, age, marital status, education, GAF (both at worst point and for last month), age at onset, DAS score and nine domains of burden.

**RESULTS**

**Table 1: Demographic and clinical details of subjects**

<table>
<thead>
<tr>
<th>Variable</th>
<th>SZ (n=58) Mean±SD(n%)</th>
<th>BPD (n=27) Mean±SD(n%)</th>
<th>MDD (n=40) Mean±SD(n%)</th>
<th>x²/F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>30.81±9.13</td>
<td>33.07±3.64</td>
<td>40±13.31</td>
<td>7.56</td>
<td>0.001***</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>38(65.5)</td>
<td>17 (63)</td>
<td>22(55)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>20 (34.5)</td>
<td>10 (37)</td>
<td>18 (45)</td>
<td>1.13</td>
<td>0.567</td>
</tr>
<tr>
<td>School (yrs)</td>
<td>11.03±4.12</td>
<td>9.86±4.5</td>
<td>9.7±4.11</td>
<td>1.154</td>
<td>0.319</td>
</tr>
<tr>
<td>Ever Married</td>
<td>27 (47.36)</td>
<td>18 (66.6)</td>
<td>36 (90.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>31 (52.6)</td>
<td>9(33.3)</td>
<td>4(10)</td>
<td>18.88</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever Employed</td>
<td>25(47)</td>
<td>11(44)</td>
<td>12 (44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Employed</td>
<td>23(53)</td>
<td>12(25)</td>
<td>22 (46)</td>
<td>1.39</td>
<td>0.498</td>
</tr>
<tr>
<td>GAF score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past month</td>
<td>29.86±11.14</td>
<td>42.63±20.63</td>
<td>41.5±12.86</td>
<td>10.90</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Worst point</td>
<td>23.4±4.44</td>
<td>23.88±5.95</td>
<td>35.14±6.01</td>
<td>20.03</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Duration of illness (wks)</td>
<td>333.38±295.55</td>
<td>50.81±43.73</td>
<td>76.39±165.60</td>
<td>21.56</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Physical health</td>
<td>34.1±2.14</td>
<td>41.6±2.33</td>
<td>38.3±21.10</td>
<td>0.312</td>
<td>0.733</td>
</tr>
<tr>
<td>Psychological health</td>
<td>35.4±20.9</td>
<td>38.4±28.1</td>
<td>35.3±15.03</td>
<td>0.210</td>
<td>0.811</td>
</tr>
<tr>
<td>Social relation</td>
<td>32.0±27.1</td>
<td>39.1±23.8</td>
<td>39.1±27.9</td>
<td>1.071</td>
<td>0.346</td>
</tr>
<tr>
<td>Environment</td>
<td>37.9±22.1</td>
<td>40.6±24.5</td>
<td>38.0±17.8</td>
<td>0.720</td>
<td>0.489</td>
</tr>
<tr>
<td>Total score</td>
<td>140.3±82.12</td>
<td>154.6±89.9</td>
<td>151.5±87.9</td>
<td>0.568</td>
<td>0.569</td>
</tr>
<tr>
<td>Spouse related factor</td>
<td>5.5±4.5</td>
<td>5.3±4.1</td>
<td>5.5±4.1</td>
<td>0.015</td>
<td>0.985</td>
</tr>
<tr>
<td>Physical &amp; mental illness</td>
<td>9.7±15.2</td>
<td>10.5±4.5</td>
<td>8.8±3.5</td>
<td>0.958</td>
<td>0.306</td>
</tr>
<tr>
<td>External support</td>
<td>7.7±3.9</td>
<td>7.8±3.4</td>
<td>7.2±4.4</td>
<td>0.278</td>
<td>0.788</td>
</tr>
<tr>
<td>Caregivers routine</td>
<td>6.8±3.4</td>
<td>6.1±3.3</td>
<td>6.1±3.6</td>
<td>2.712</td>
<td>0.070</td>
</tr>
<tr>
<td>Support of patient</td>
<td>5.1±3.2</td>
<td>5.5±2.4</td>
<td>4.6±2.7</td>
<td>1.026</td>
<td>0.362</td>
</tr>
<tr>
<td>Taking responsibility</td>
<td>7.2±4.5</td>
<td>7.6±3.4</td>
<td>6.9±3.6</td>
<td>0.312</td>
<td>0.733</td>
</tr>
<tr>
<td>Other relations</td>
<td>6.8±2.5</td>
<td>6.8±2.2</td>
<td>3.9±3.4</td>
<td>0.972</td>
<td>0.361</td>
</tr>
<tr>
<td>Patient's behavior</td>
<td>6.6±3.4</td>
<td>6.7±3.1</td>
<td>5.5±3.2</td>
<td>1.848</td>
<td>0.197</td>
</tr>
<tr>
<td>Caregivers strategy</td>
<td>6.9±3.4</td>
<td>7.1±2.6</td>
<td>6.2±3.4</td>
<td>0.870</td>
<td>0.421</td>
</tr>
<tr>
<td>Total BAS scores</td>
<td>60.2±28.2</td>
<td>63.2±24.5</td>
<td>54.8±28.2</td>
<td>0.842</td>
<td>0.433</td>
</tr>
<tr>
<td>DAS scores</td>
<td>14.0±10.16</td>
<td>13.2±10.5</td>
<td>32.3±10.5</td>
<td>0.087</td>
<td>0.935</td>
</tr>
</tbody>
</table>

# Total duration of illness was taken as per OPCRIT- DIGS criteria. Current episode may have been shorter.
*P<0.05 is statistically significant

MDD group was the oldest on average age. Although the sex ratio was not significantly different among all three groups, there were more females in the MDD group. While the groups did not differ significantly in years of education, SZ subjects were educated up to two years more, on an average, than BPD and MDD. As expected 52% SZ subjects were unmarried, which was significantly different from the other two diagnostic groups. Also, quite surprisingly, there was no significant difference among all three groups in employment status (which included housewives and students).

Duration of illness was significantly different (p<0.001), with SZ subjects ill for the longest period (333 weeks) while BPD were ill for less than one year on an average (adding all BPD episodes of illness as per OPCRIT criteria). GAF scores at worst point of
illness were similar for BPD and SZ, indicating that these two groups had experienced severe illness although not necessarily in the past month. During the last month (period of evaluation), BPD functioned significantly better than SZ. Although both BPD and SZ groups had improved from the worst points of their illness, the change was much greater for the BPD group. MDD group was the best functioning at both times, and their improvement from worst point to last month was intermediate.

None of the three diagnostic groups were significantly different on disability as measured by DAS and quality of life as measured by WHO-QOL scores for the last thirty days. All domains of DAS and WHO-QOL were compared separately and globally between themselves but there was no significant difference. Similarly, family burden perceived by the primary care giver was also not significantly different among these three groups in all factors of family burden scale (Table 2).

Regression analysis was carried out to find association of demographic variables (age, sex, education, marital status) and clinical variables (Diagnosis, GAF scores for both last month and worst point of illness, duration of illness) on BAS and QOL domains separately. There were multiple predictors and multiple outcome variables so different regression analyses were carried out. The following variables were significant irrespective of age, sex and other clinical variables. Association between BAS and WHO-QOL variables, and GAF (worst point and last month) were significantly different only for three domains (Table 2).

The QOL domain 'physical health' was significantly associated only with GAF at worst point of the subjects' illness (β=0.214, p=0.020) but not for GAF at past month. Better the 'physical health' domain of QOL, less severe the illness in terms of GAF. GAF was also associated with environmental domain of WHO-QOL (β=0.181, p=0.021) and social relations domains of WHO-QOL (β=0.371, p=0.001). The environmental domain of WHO-QOL indicates financial resources, health and social care, home environment, leisure activities etc.. Higher education of subjects resulted in better 'social relationship' domain scores (β=0.31, p=0.003); psychological health (β=0.223, p<0.001) and environment (β=0.224, p=0.020). Those with higher education (a variable which may be a proxy for higher intelligence) had better social, emotional and informational support.

Higher age was associated with 'Spouse related' domain of BAS (β=0.227, p=0.001) irrespective of their diagnosis, education and severity of illness. Education (β=0.222, p=0.009) and GAF at worst point of illness (β=0.313, p=0.001) were also associated with spouse related domain of BAS. If the subject was educated and severity laws less then spouse related burden was reportedly lower.

**DISCUSSION**

Our study included three major psychiatric illnesses, thus enabling a comparison between these illness on disability, quality of life and family burden. Though our sample was randomly recruited, it may not have been representative of the patient population as a whole. The type of subjects this tertiary care, government funded free public hospital caters may be different. Patients had to be stable enough to provide informed consent either to participate in yoga training for 21 days or be willing to attend follow up sessions as controls. More educated subjects may have agreed to present themselves for recruitment in a research study. The proportion of females was larger in the MDD group. The SZ subjects were slightly more educated on an average than the other two groups yet their marriage rate was lower than the other two groups. The schizophrenias patients in this sample were those who agreed to consider participating in the yoga project and who then consented to be interviewed.
Thus they may have been a special subset of schizophrenia patients as a whole and may have been better educated.

The comparatively higher marriage rate of schizophrenia in this sample is perhaps because of their higher level of education. Majority of the MDD participants were married as the mean age of this group was higher than other diagnostic groups and GAF scores were also higher, suggesting less severe illness. This may also be because age at onset of MDD is higher than SZ and BPD (Sadock et al, 2009). Duration of illness (higher) and GAF scores (lower) of SZ subjects were significantly different from the other two diagnostic groups, as also reported by others (Pacheco et al, 2010).

There was no significant difference among the various diagnostic categories on QOL, DAS and BAS, at least for the short term of last one month. This is in contrast to the study conducted by Bottlender and colleagues who reported that problems in social functioning were more common in schizophrenia subjects (64%) than in subjects suffering from affective or schizoaffective disorders (Bottlender et al, 2010). However, Jenkins and Schumacher (1999) concluded that regardless of diagnosis or ethnicity, 'subject misery' may be the most burdensome and distressing factor.

SZ and BPD have reported similar quality of life, while depressive symptoms were associated with lower QOL (Saarni et al, 2010). SZ subjects had worse GAF scores than the other two groups. On regression analysis severity alone (GAF) was associated with three domains of QOL and spouse related domain of BAS. Similar burden experienced by caregivers of three diagnostic groups may be attributed to the socio-occupational impairment in functioning present in all the three disorders, especially during periods of acute illness. BPD and MDD subjects in this study, perhaps reported when they were seriously symptomatic and at that time caregivers may have perceived higher burden. A large number of subjects (44%), irrespective of diagnosis, were unemployed and were dependent on their family members economically, so irrespective of it being SZ, BPD or MDD burden was similar.

We found that less severe the illness in terms of GAF scores, better the score on physical health domain of QOL. Physical health domains measured the activities of daily living, dependence on medical aids, energy and fatigue, pain and discomfort, sleep and work capacity. Thus a less disabled mentally ill person could not only look after herself better, but slept better and suffered less from daily aches and pains. GAF score was also associated with environmental domain of QOL which measures financial resources, health and social care, home environment, leisure activities etc.

Greater symptom severity was associated with reduced QOL in depression (Trivedi et al, 2006). In a study (Sung & Yeh, 2007), the best predicting factors for quality of life are the degree of depression. Among other factors, more severe positive and negative symptoms are correlated with poorer QOL in schizophrenia (Savilla et al, 2008).

'Social relationship' domain of QOL which measures social relationships and social support was predicted by subject's education in the total sample. Premorbid social and intellectual functioning was more impaired in schizophrenia than the general population in many studies (Cannon et al, 1997). The social relations of educated persons were more impaired, may be their premorbid social relations were better than less educated persons. Skantze and coworkers (1992) found that patients with higher levels of education perceived lower life quality. Lehman's QOL interview data (Lehman et al, 1993) also support the notion that educational level is negatively correlated with QOL.

Thus it seems that in terms of quality of life and burden on family, the degree of disablement may be the best measure rather than diagnosis or duration. Other social factors such as education and marriage may also predict burden and quality of life. If the patient is less severely ill, he is less physically dependent on caregivers, and enjoys better quality of life.

However our results need to be qualified by the type of patient group recruited in this small study. The short period of evaluation needs to be supplemented by longer term follow ups, when the subjects are less (or more) symptomatic. None of our subjects suffered from major physical comorbidity, all of them were physically fit enough for yoga. This may not be representative of these diagnostic groups as a whole. The tertiary care facility
at RMLH may have influenced the type of patients accessing care here. Also more educated and/or severely ill patients may have agreed to participate in yoga training. These and other drawbacks need to be addressed in future studies.

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MARRIAGE AFTER INFIDELITY: A CASE ANALYSIS

Chetna Duggal¹, Jyotsna Agrawal², Anisha Shah³

ABSTRACT

Background: The face of Indian marriages is changing with time. With couples living in nuclear set ups, women becoming economically independent and social inhibitions getting fewer, boundaries in relationship are getting diffused and relationships outside marriage common. This article looks at extra-marital involvement when it involves sexual and emotional involvement with a partner outside marriage and its impact on marriage through a specific case report. The article outlines the discovery of infidelity in one partner and the consequent process of rebuilding the marriage in the context of couple therapy. As the process of therapy unfolds the role of therapist's assessment, handling disclosures, therapeutic intervention, dimensions of change in rebuilding marriage, and managing breach of trust during therapy are explored.

Key Words: Extra-Marital involvement, infidelity, couples therapy, India

INTRODUCTION

Infidelity in marriages is one of the most damaging relationship events. Disclosure or discovery of infidelity in one or both partners usually precipitates an emotional crisis that leads couples to seek therapeutic help. Though infidelity has never been uncommon in India, but it is only now that more and more couples are seeking therapy for issues around infidelity. This is a new therapeutic trend in India, driven by changing social and cultural norms and increasing empowerment of women. As a result of employment and economic independence women have more power and are not helpless victims any longer (Mathadil & Sandhu, 2008).

Blow and Hartnett (2005) define extra-marital involvement (EMI) as "a sexual and/or emotional act engaged in by one person within a committed relationship, where such an act occurs outside of the primary relationship and constitutes a breach of trust and/or violation of agreed upon norms (overt and covert) by one or both individuals in that relationship".

Disclosure of infidelity by a partner may cause feelings of deep pain, hurt, anger and resentment in the non-offending partner and feelings of guilt, shame and loss in the involved partner. To help couples to move from this emotional crisis to rebuilding their relationship is in no way an easy task. Therapists have acknowledged that working with couples with issues of infidelity can be extremely challenging (Fife et al, 2008; Whisman, et al, 1997). As Scheinkman (2005) points out "it is important to not only focus on the trauma caused by the experience, but also the motives, contextual factors, and cultural ideas that might have contributed to the extra-marital relationships".

This paper focuses on a single case study where a couple came in for couple therapy after the disclosure of infidelity by one partner. The case highlights how disclosures of EMI can precipitate a crisis in the marriage, and how the therapist can facilitate to rebuild the relationship after this crisis, as well as when new breaches of trust happen during the process of therapy.

An integrated approach to couple therapy was utilized to help this couple. Gordon et al, (2005) suggest that in such therapies phase-I is usually devoted to the impact of interpersonal trauma on both. In general, therapist's sensitivity to frequent chaotic negative interactions as well as periods of lull is crucial. Emotional processing of experiences, behavioural change to decrease destructiveness and cognitive work to help conceptualize affair as a traumatic event are all equally important in therapy. Individual as well as conjoint sessions...
can be judiciously used towards these goals guided by the immediate therapeutic needs of each partner.

**Background Information**

Jay and Maya were referred for therapy by a psychiatrist. Maya was seeking help from a religious teacher to tide over the crisis in their marriage until the teacher felt that she needed professional help and referred her to a psychiatrist friend, who subsequently referred her for therapy. Maya made the first contact and sought appointment for a joint session.

**The Clients**

Maya is a 40 year old media professional, petite and pretty and dresses conventionally. She chooses her words well and speaks slowly. Jay is a 44 year old media professional, he is in a senior position in one of the biggest media companies. He is smart, charming and his dressing style is very contemporary. He is very spontaneous and has a way with words. They have been married for the last 18 years and have a 16 year old daughter, who is unaware of the crisis in her parents’ marriage.

**The Therapist**

The therapist is a 31 year old female practicing psychotherapy for the last four years.

**The First Session**

Maya came in for the first session visibly distressed and did most of the talking. She narrated that Jay had been in a relationship for the last one and a half years outside their marriage with a family friend Tina. This relationship began when Jay had taken up work in another city and was staying away from the family. Maya had got to know when Tina’s husband Vik had found out through the messages on her phone. Vik and Tina had a very turbulent relationship and they were separated from each other and waiting to start the divorce proceedings. Vik was very close friends with Jay and Maya and was devastated when he found out about Jay and Tina’s relationship, and wanted to know from Maya if she knew about it.

From the time that Maya had found out she had been constantly asking Jay questions about when, how, where and what, as she wanted to know all the details about the relationship. She was extremely disturbed by the fact that she was not able to sense that Jay was cheating on her and also that she had suggested that Tina stay with Jay when both of them were in another city for work trusting both of them blindly. What was even more distressing was that apart from the emotional bond that they had, Jay and Tina had also been physically intimate over several occasions in the last one and a half years. Despite feeling let down by Jay, Maya felt that she had given a lot into this marriage and wanted to make it work. She wanted to be sure that Jay also wanted to be in this marriage as much as she wanted to be in it with him. Maya also wanted to understand how she could rebuild her trust in Jay.

Jay was calm and helped Maya to collect herself each time she broke down during the session. He agreed to all the facts that Maya related and said he would try his best to help both of them find answers to questions around what led to his involvement outside their marriage. Jay was visibly guilty about what had happened but what was striking was he never lost focus of his commitment to make things work with Maya.

The therapist assured them of confidentiality and support in trying to tide over the crisis and also admitted that there might be some questions that might remain unanswered. The focus would be to help them build their relationship.

On assessment the therapist felt that although Maya was extremely distressed she did not have any anxiety or depression symptoms that would warrant clinical attention.

**The Highlight**

Despite the huge crisis that the couple came with, at no point in the session did they raise their voices or accuse each other. They were both completely convinced that they wanted to stay in this marriage.

**Formulation**

The case was formulated using the dimensions of the clinical framework of infidelity outlined by Allen & Atkins (2005) as mentioned below:
**Predisposing factors**

Before a potential affair partner has even been met, there are "preinvolvement" factors that may increase (or decrease) the likelihood of infidelity occurring.

Intrapersonal (Qualities of the individual engaging in the affair important to the development of the affair) - Jay's need for thrill and excitement and his risk-taking nature.

Spouse/primary partner (Qualities of the spouse or the injured partner) - Maya's controlling and unappreciative nature, her tendency to be reactive and nagging.

Marriage/primary relationship (Characteristics of the primary relationship that contribute to the development of an affair and factors that are systemic between the partners) - Breakdown in communication due to busy schedules, lack of sexual intimacy, lower marital quality.

In terms of the deficit model, EMI could have resulted as the primary relationship was lacking in some areas and alternative partner was quite attractive (Thompson, 1983; Drigotas, et al, 1999).

**Approach**

After the stage is set in terms of predisposing factors, various elements may encourage (or discourage) progression into infidelity - Tina's friendship with the couple and Maya allowing Jay and Tina to share the apartment in a different city created opportunity and a facilitative context.

**Initial involvement**

Multiple factors may promote crossing the line and engaging in infidelity - For Jay being alone and away from his spouse, his need for emotional and physical intimacy and availability of a willing partner in Tina.

**Maintenance**

Factors that serve to maintain the affair - The thrill and excitement of an affair, the attention and appreciation that Jay received, fulfillment of needs of physical intimacy that Maya was not able to fulfill. His increasing attachment to Tina and his feeling that he would be unfair to her if he left her when she was going through a divorce contributed to his decision to continue the affair. Apart from that the fact that Maya never suspected or questioned him led him to feel that he would never be discovered.

**Response**

The factors that affect the responses of each of the individuals and of the marital relationship to the EMI - The couple decided to work on their relationship and continue the marriage despite the EMI. The fact that it was a long-standing relationship and they had invested a lot into it, along with the fact that they had a 16-year-old daughter who required to have a stable home kept them going.

**The Meaning making Phase**

The next three sessions involved discussing the nature of Jay's relationship with Tina, their level of emotional and physical involvement and the factors that led to Jay's engagement in this relationship. Maya wanted all the answers and would compare herself constantly to Tina. She had begun to feel that she was not good enough for Jay. Jay, however, patiently tried to answer her questions with all the details and admitting when there were really no answers. Jay would reassure her that in his mind he never compared her to Tina. The therapist facilitated the process of sharing and Maya started feeling better when she felt she was being able to express herself adequately and her anger and disappointment were getting validated.

At this stage the therapist initiated the process of helping the couple understand what this meant to their relationship. Although Maya began negatively, she saw this as a crisis that they had to tide over and she wanted Jay to take responsibility and resolve it. Jay, on the other hand, admitted he had fallen short and was willing to do all that was needed to make things work.

To be able to move forward it also became important to understand what could have led to this crisis. Maya spoke of breakdown in communication due to their busy schedules, lack of sexual intimacy and also brought up issues around her
tendency to be very reactive at home, being very controlling and nagging Jay (something she was working on by attending spiritual classes for the last few years). She also coined the term ‘mother-sister phenomenon’, which she thought was responsible in facilitating Tina and Jay’s relationship. She felt that Jay’s sister and mother both think that he can do no wrong and Jay himself is very self-centered, ambitious and ‘full of himself’. Maya has always been the person who grounds him and gives him the reality check. These both of them admitted was something that Jay was extremely unhappy about, because whatever he achieved was never good enough for Maya. He never felt appreciated in the marriage, whereas Tina worshipped the ground he walked on.

This stage of therapy essentially looked at achieving two broad goals:

1. Facilitating catharsis so Maya and Jay could express what they were experiencing and to rebuild trust:

   Facilitating exploration and expression of feelings to restore trust, normalizing hurt feelings, and validation of feelings of non-involved partner by involved partner are crucial to therapeutic work while working with infidelity (Spring, 1996; Lusterman 2005). Fife et al, (2008) assert that the first phase in therapy for couples with infidelity is crisis management and should focus on helping the couple express their emotions, get stability and order, allow for appropriate fact finding by the betrayed partner, assess for commitment of both partners to make things work and assess for risk factors that could have led to the EMI. De-escalation of crisis, understanding the meaning of affair and rebuilding attachments and commitment have been identified as important interventions by Dupree et al, (2007).

2. Develop an understanding of what could have led to the crisis in the marriage and the development of the EMI:

   Allen & Atkins (2005) point out that the key task in working with couples in which there has been an affair is to help both partners gain an understanding of why the affair occurred. They propose that the therapist can guide the couple in constructing a narrative of the factors that the couple perceives contributed to the affair and identify changes that are needed to buffer the relationship from future infidelity.

The Savouring Experience/Relationship Building Process

In the next three sessions the therapist steered the discussion towards the beginnings of their relationship to go back to what brought them together and to explore the foundations of their relationship. During these sessions the couple enjoyed narrating to the therapist how their relationship which began as a friendship in their teens culminated in marriage. The therapist helped them to focus on what it was that brought them together and what kept them together. The bitterness and distress was getting replaced by fondness and moments of joy. They began sharing personal anecdotes and jokes they had shared, with the therapist. However, in their marriage they had seen difficult times, Maya’s rough relationship with her mother-in-law, their daughter’s difficulties in school, etc. The therapist focused on how they tided over these difficulties and the bond that they had formed over these years.

Although Maya still felt that it would take her a while to rebuild the trust that she had in Jay, she was willing to forgive and work on the issues. The therapist reassured her that she could take her time and that Jay would play his role to help her rebuild her faith.

These discussions highlighted what they liked most about each other and what this relationship was giving them. They were able to see what led to a crisis in their marriage and the sequence of events that contributed to the disconnect between them. The awareness that communication breakdown was one of the major reasons for them falling apart led to increased time together to talk about their feelings.

In this stage of therapy the therapist helped the couple look back at how their relationship had evolved and in the process helped them realize how they valued each other, at the same time help the couple identify areas that they needed to work on to strengthen their relationship. Fife et al, (2008) point out that reflecting on moments of love, memories and goals can facilitate commitment and hope in a couple and lead to forgiveness and healing.
Consolidation and Moving Forward

As therapy progressed the therapist encouraged the couple to spend time talking about their feelings. Communication became a lot better between Jay and Maya. Whereas Maya was given feedback to tone down her reactivity and work on her low frustration tolerance, Jay was suggested to be more patient towards her. It was also recommended that Jay spend quality time with the family and he decided to take a transfer to be in the same city as his family.

They were due to move into their new house and the therapist urged them to start planning the work for setting up the house. Common goals around setting up the house, calling friends and family over brought them together. With Jay back in the house full time and contributing to household responsibilities, his level of engagement in the family began increasing. In the background, physical intimacy improved between them during this phase.

This phase has been identified by therapists as a phase of rebuilding the relationship (Spring, 1996), as the ‘rapprochement phase’ where couples move towards a better marriage (Lusterman, 2005), as the phase which involves moving forward with one’s life, with a new set of relationship beliefs (Gordon, et al, 2005). Some studies show a small percentage of couples improve their relationship after an EMI and there may be specific positive outcomes like increased assertiveness, better communication in marriage. (Charny & Parnass, 1995; Olson et al, 2002).

Termination by Chance

At this point due to Jay and Maya travelling and also moving into their new house they were unable to continue with therapy sessions. Maya called in a couple of times to let the therapist know that things were fine and getting back on track.

Crisis Again

Six months later, the therapist heard from Jay saying that he wanted to seek an appointment. This time Maya wanted Jay to come alone as she had again discovered from Vik that Jay and Tina were in touch over the phone. She wanted him to decide if he really loved her and wanted to be with her or whether he would rather be with Tina. She also made him write a letter to Tina telling her that he would not keep in touch with her and also got him to change his mobile number so she could not get in touch with him.

A Personal Journey

When Jay came in he was completely sure he wanted to stay in the marriage and though Maya wanted him to discuss his commitment to the marriage in the sessions he wanted to understand why he had failed Maya again. The fact that the therapist was accepting and was not harsh on him for breaking Maya’s trust helped him talk about the things that had been bothering him about Maya. Jay felt that this time he had kept in touch with Tina mostly to help her during difficult times she experienced while her divorce progressed. He felt that he had not mentioned this to Maya because he felt that she would react strongly and not trust him. Because he was sure he wanted to stay in this marriage the therapist suggested that some time could be spent understanding what was making him breach the boundaries of this relationship. Also to understand in that context what the relationship with Tina gave him.

Jay felt that he was by nature a person who enjoyed thrill and excitement and the relationship with Tina certainly had that element. His relationship with Maya, on the other hand, had become somewhat monotonous. He felt that he was a person who enjoyed taking risks (e.g., gambling on holidays, taking high-risk decisions at work) and was impulsive. He felt that he may need to suppress this side of him. The therapist, however, helped him see that the same shades of his personality were helping him achieve targets professionally and get to places where his contemporaries were nowhere close. However, in therapy it might be important to understand how in relationships this could be creating a problem for him.

Jay discussed with the therapist how his sexual relationship with Maya had completely died down and after he rediscovered it with Tina it had got a lot better. He felt that this could be a potential area where Maya and he could work together.

At this stage in therapy it was important for the therapist to help Jay identify the reasons that were leading him to engage with Tina. There are many possible reasons for an EMI - Romantic charm involved in EMI, as EMI is intensive while marriage is extensive, presence of long-term dissatisfaction within marital
relationship (Ables & Brandsma, 1977), pursuing excitement and stimulation, receiving affection, feeling validated, (Linquist, 1989), yearning for a particular kind of emotional connection (Weil, 2003). Jay was able to identify many of these as factors that drew him to Tina.

At this point the therapist felt that Jay remained preoccupied with his relationship with Tina and his attachment or relationship style seemed to be based on looking at only the positive things in his relationship with Tina. The therapist then initiated discussion about what if he was to take the decision to be with Tina what would be the future of the relationship. During this discussion Jay was able to see how their relationship would not last and how Tina would change once she was sure about her place in his life, just the way she did with Vik.

The therapist then asked Jay to think about what were the things that his relationship with Maya would not give him. Primarily, so he can accept it and not look for it outside and also to help him find some other more acceptable way to get those things. Jay came back with two things: thrill and excitement and transparency. Over the discussions, it was felt that the thrill and excitement could be generated in the marriage through things that they did together (they had not taken a single holiday by themselves after their daughter was born) and also by Jay trying to engage in activities (he started playing badminton regularly and started going for kick boxing classes). The issue of transparency was handled by a two way process. Firstly, by Jay sharing information with Maya without worrying about how she would react and secondly, by reinforcing her positively each time she was not dismissive or aggressive towards him when he made a disclosure.

Finally, the issues around boundaries and the value of trust in a marriage were discussed. The therapist felt that preparedness on Jay’s part about how he would react to such a situation if it happened again would prevent him from being impulsive and just go with the flow. Also the fact that he valued his relationship with Maya a lot he needed to make an effort to be transparent so he could disclose and discuss things with her immediately.

The Test

Maya had been sure that Tina would get in touch with Jay once her divorce proceedings would be through and was constantly asking Jay if he had heard from Tina. Just when the closure session was being planned Jay received a very emotionally charged mail from Tina telling him how much she loved him and how much she wanted him back in her life. Jay came into the session with the letter wanting to know how he should go about disclosing this to Maya. Although it seemed clear that Maya should be told that he had heard from Tina he was not sure how she would handle the content of the mail and whether he should forward it to her. The therapist focused more on his feelings after getting the mail and how he felt being so wanted by another person and not being able to reciprocate and left the questions around disclosure open-ended. Jay reported in the next session that he had showed Maya the mail the same day and although she was disturbed by its content she felt that this act of Jay had helped her regain her trust back in him. Jay felt that having dealt with his feelings in the session he was more confident disclosing to Maya Tina’s attempt to get in touch with him.

Closure

The closure session focused on consolidating the work done in therapy, reviewing what helped to tide over this crisis and areas that they needed to continue working on to help their relationship grow.

THERAPIST’S CHALLENGES AND DISCUSSION

At the time of referral the psychiatrist who had referred the couple informed the therapist that the couple had apprehensions about the therapist being younger than them. This helped the therapist identify age related processes in the sessions, which were then tackled by utilizing more explicit collaborative stances. Also both Maya and Jay were bright and insightful individuals and made connections quickly. The sessions required the therapist to be thinking one step ahead and also be able to use their potential for insight in the therapeutic process. The fact that even slight nudges could translate into great change was extremely gratifying for the therapist.

The sessions were emotionally charged and a lot of disclosures were made that required to be contained so the clients could leave the session feeling unburdened. The real challenge was to do that effectively without passing judgments or providing answers. When there was a breach of trust on the part of Jay...
there was a high chance that all the progress that was made in therapy would lose meaning and the relationship between Jay and Maya would fall apart. At this stage the therapist needed to look beyond just the breach by being accepting towards Jay and helping him in a process of self discovery, help him develop trust in himself and also be able to communicate that trust to Maya.

Isaac (2004) found that marital therapy was effective and therapeutic alliance was the strongest process predictor of outcome. Usually in EMI couples, balanced therapeutic alliance is difficult yet that was achieved and sustained throughout therapy. Maya was also emotionally strong in facing the relationship crisis. Perhaps, present day women are less vulnerable to helplessness than earlier generations. Maya gave Jay a fair chance, was not always fearful and anxious, and remained open to reasonable negotiations from time to time though unreasonable demands also continued for some time.

Couples pre-EMI communication and intimacy quality also makes them emotionally stronger to face such a crisis. In addition to what the marital relationship holds in the face of EMI, family and systemic components could also be relevant though may be hidden from therapeutic discourse often. Moreover, social changes suggest that EMIs no longer need to remain as unspoken secrets within families. For this couple, their responsibility towards their daughter to provide her an intact family along with their maturity and responsibility towards oneself and their partner, due to 18 years of married life could have contributed to a strong commitment to continue.

Helping couples with EMI is full of dilemmas and requires new thinking at every step. This case brings to attention some of the challenges in psychotherapeutic work with such couples.

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FAMILY ENVIRONMENT AS A FACTOR IN TENSION TYPE HEADACHE
Lovleen Kaur¹, Vivek Rustagi², Vibha Sharma³, T.B. Singh⁴

ABSTRACT

**Background:** Limited literature exists on role of family environment in tension type headache. The present study investigated the severity of headache, associated depression and anxiety and perceived family environment in tension type headache. **Method:** A sample of 30 patients, both male and female, between the age range of 20 to 40 years, diagnosed with tension type headache was selected from Institute of Human Behaviour and Allied Sciences (IHBAS). Migraine Disability Assessment Questionnaire (MIDAS), Beck Depression Inventory (BDI-II), The Institute of Personality and Ability Testing (IPAT) Anxiety Scale and Family Environment Scale were used for data collection. **Results:** Moderate degree of headache, high degree of anxiety and moderate degree of depression were found in patients with tension type headache. Control was perceived as the most prevalent family environment and cohesion was perceived as the least prevalent family environment by the patients with tension type headache. **Conclusion:** Family environment plays an important role in causation and perpetuation of tension type headache.

**Key Words:** Tension type headache, family, depression

INTRODUCTION

Tension type headache is the most common headache problem seen, both alone and in conjunction with other types of headache. Tension type headache is essentially characterized as head pain devoid of migrainous characteristics. Features ascribed to this disorder are a bilateral location, a tendency to wax and wane throughout the day, a heavy pressing and tight quality, an association with contracted muscles of the scalp and neck and occurrence in relation to emotional conflict (Ziegler, 1985).

International Headache Society (IHS) classifies tension type headache into episodic and chronic, based on the duration and frequency of headache. Patients with tension type headache may also have emotional difficulties such as anxiety, tension and depression. Anxiety and depression are recognized comorbidities present among patients with tension type headache (Matta & Filho, 2003).

The biobehavioural model, which guides treatment of headache, states that the likelihood of any individual experiencing headache depends on specific pathophysiological mechanisms that are "triggered" by the interplay of one's physiological arousal, environmental factors, individual's ability to cope and consequential factors that may serve to reinforce and thus increase the person's chance of reporting headache (Martin & Rome, 1967).

Tension type headache patients were more likely to describe their families as emphasizing clear organization, structure and overall control, but less likely to encourage emotional expression.

There is a paucity of research studies on the role of family environment in tension type headache. Keeping this in mind, the present study was conceptualized, with the goal of exploring how family environment contributes and results in tension type headache.

MATERIAL AND METHOD

Sample Characteristics

The present work was a cross-sectional, hospital based study conducted at the Institute of Human Behaviour and Allied Sciences (IHBAS), Delhi. Thirty patients between 20 to 40 years of age, of both sexes, diagnosed with tension type headache based on International Headache Society (IHS, 2004) were included in the study. Patients suffering from some other major psychiatric, neurological illness or having migraine, posttraumatic headache, cluster headache and other forms of headache were excluded from the study. Informed consent was obtained from the patients who fulfilled the inclusion criteria. Consenting male and female patients meeting the inclusion and exclusion criteria were taken up by purposive sampling.
Tools Used

Migraine Disability Assessment Questionnaire (MIDAS) (Stewart et al, 1995): MIDAS Questionnaire consists of 5 questions pertaining to the intensity and disability due to headache. The subject is required to rate how painful the headache is, on a 0-10 scale, with 0 as no pain at all and 10 as bad as it can.

Beck Depression Inventory (BDI-II) (Beck et al, 1996): The BDI-II was a 1996 revision of the BDI. BDI-II contains 21 questions, each answer being scored on a scale value of 0 to 3. Participants are asked to rate how they have been feeling for the past two weeks, as opposed to the past week as in the original BDI.

The Institute of Personality and Ability Testing (IPAT) Anxiety Scale (Cattell, 1973): The Anxiety Questionnaire consists of 40 questions and each question has three possible answers. This estimates the total level of anxiety by identifying and distinguishing unconscious or latent anxiety from manifest symptomatic anxiety.

Family Environment Scale (FES) (Moos & Moos, 1974): The scale comprises of 90 statements to which the subject is required to give response as “yes/no”. Family environment is composed of 10 subscales that measure the actual environment of the families.

RESULTS

Age and sex included bivariate tables were prepared for mean scores of all three scales applied. Student's t-test and ANOVA were applied to verify the significance of difference in mean scores between age and sex. For multiple comparisons Tukey test was used, when ANOVA result was significant. Trend analysis was done to obtain the trend of family environment as perceived by tension headache patients. Graphical method like bar chart was used to depict the results.

Thirty patients were taken in the present study. 36.6% of the patients had moderate degree of headache. Forty three percent of the patients had severe depression and 56.6% of the patients had high degree of anxiety. There was no statistical difference among male and female tension type patients in terms of degree of headache and anxiety. Depression was found to be significantly more in females (p=0.04) as compared to males (Table-1). Significant statistical difference was found between the age groups of 20-24 years, 25-30 years and 31+ years, with 25-30 years age groups having severe depression.

Table 1: Sex and Scale wise mean score distribution between male and female patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male (n=13)</th>
<th>Female (n=17)</th>
<th>Total (df=28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDAS</td>
<td>18.3±9.92</td>
<td>16.1±6.81</td>
<td>17.1±8.21</td>
</tr>
<tr>
<td>IPAT</td>
<td>7.3±1.37</td>
<td>7.65±1.49</td>
<td>7.56±1.43</td>
</tr>
<tr>
<td>BDI-II</td>
<td>24.54±10.03</td>
<td>33.35±12.21</td>
<td>29.53±11.99</td>
</tr>
</tbody>
</table>

P<0.05 is statistically significant

Fig 1: Trend Analysis of Family Environment Scale

Males were found to perceive more of cohesion (mean SD; 38.85, 8.08) and females more of control (mean SD; 62.06, 8.47) oriented family environment (Figure-1).

DISCUSSION

The first objective of the study was to assess the severity of headache among the tension type headache. Findings showed that the patients had moderate to severe degree of headache. Patients with tension type headache had significantly higher scores on measures of anxiety, depression and hostility as compared to controls (Bag et al, 2005).

The second objective was to assess the associated symptoms of anxiety and depression among tension type headache patients. Results showed that tension type headache patients had average to high degree of anxiety. The anxiety may be expressed in the form of palpitations, restlessness and other forms of its manifestation.

The findings in the present study revealed that females have severe degree of depression compared to males. Females
have tendency to internalize anger and are susceptible to depression because of gender differences in roles, which have led to the differences in the experience of life stress (Kimberling & Ouimette, 2002). Men are usually socialized to be emotionally inhibited, assertive and independent. The multiple comparison among the three age groups revealed that 25-30 years age group had severe depression. During this period, people are trying to settle down both at the professional and personal front. A number of responsibilities are to be taken into account often leading to stress, burnout and brings down the coping abilities.

The third objective of the study was to study prevalent family environment of tension type headache patients. Results revealed that control has been perceived as the most prevalent family environment, with patients perceiving their families having set rules and procedure to run the family life. Whereas cohesion i.e. degree of commitment, help and support family members provide for one another was the least prevalent perceived family environment. It indicates that open discussion of disagreements was more common than a supportive family. Patients in more supportive families reported less pain, anxiety and depression, whereas more family conflict and control were associated with more pain, discomfort and depression (Faucette, 1993). Female patients were found to have more of control and organization oriented family environment, which can be one reason for their depression and anxiety also, whereas male patients were found to have more of cohesive, achievement oriented and moral religious oriented families.

CONCLUSION

Patients with tension type headache were found to have moderate to severe degree of headache and average to high degree of anxiety. Females have severe degree of depression compared to males. Control has been perceived as the most prevalent family environment, whereas cohesion the least prevalent family environment. Female patients were found to have more of control and organizational oriented family environment, whereas male patients were found to have more of cohesive, achievement oriented and moral religious oriented families.

However, the sample size of the study is too small, for the findings to be generalized. Socioeconomic status as an important correlate has not been considered in the present study.

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SUICIDAL IDEATION AMONG SCHOOL GOING ADOLESCENTS

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ABSTRACT

Background: The probability of suicide increases in both males and females as children grow older, with adolescents ages 15 to 19 years being at higher risk than youth ages 10 to 14 years. Suicidal ideation has been viewed as an initial stage on a continuum of suicidality. This study examined suicidal ideations in adolescent boys and girls and its relationship to depressive and anxiety symptoms in them. Methods: A total of 259 students with age range of 13-19 years and of class X, XI and XII from three schools of Ranchi were screened for suicidal ideation by Suicidal Ideation Questionnaire and the level of anxiety and depression was assessed by Hospital Anxiety Depression Scale. Results: Overall 44.8% adolescents had suicidal ideation where the girls (57.4%) exceeded boys (35.8%) significantly (χ²=11.93, p<0.01). There was a significant positive correlation of suicidal ideation in adolescent boys with anxiety (r=0.401, p<0.001), depression (r=0.213, p<0.01), or anxiety and depression together (r=0.359, p<0.001). Similarly there was a significant positive correlation of suicidal ideation (SIQ total score) in adolescent girls with anxiety (r=0.603, p<0.001), depression (r=0.501, p<0.001), or anxiety and depression together (r=0.608, p<0.001). Conclusion: The adolescents as a whole with girls in particular are at increased risk of suicidality and symptoms of depression and anxiety are related to the risk. There is a need for school based intervention programs to highlight this common but ignored problem.

Key Words: Suicidal ideation, adolescents, depression, anxiety, school

INTRODUCTION

Suicidal behaviour represents one of the most significant problems among youth today. Suicide and suicidal behaviour in adolescents are major concerns of the educational system and general community. The probability of suicide increases in both males and females as children grow older, with adolescents ages 15 to 19 years being at higher risk than youth ages 10 to 14 years (Berman et al, 2006).

Among various risk factors for youth suicide include biological deficits in serotonin functioning, social isolation, limited access to mental health facilities, poor problem-solving and coping skills, low self esteem, problematic parenting or family environments, parental psychopathology, cultural or religious beliefs, access to lethal weapons, and repeated engagement in or exposure to violence (Brock et al, 2006; Joiner, 2005; Lieberman et al, 2008). Suicidal ideation has been viewed as an initial stage on a continuum of suicidality and a primary marker for future suicidal behaviour (Pfeffer et al, 1991; Pfeffer et al, 1988; Smith & Crawford, 1986; Kessler et al, 1999). Children and adolescents who exhibit milder forms of suicidal behaviour (e.g., suicidal ideation) but who are under-treated or not treated for it (e.g., not receiving antidepressant medication or psychotherapy) are also at increased risk for suicide (Miller & Eckert, 2009).

Based upon this and the perspective that suicidal ideation in youngsters may be considered maladaptive and a target for intervention, the formal assessment of suicidal ideation using measures such as the Suicidal Ideation Questionnaire (SIQ; Reynolds, 1988) has been proposed as a formal component of school-based suicide prevention programs for early identification of at-risk youngsters (Eggert et al, 1995; Reynolds, 1988; 1991).

Although research in the area of youth suicidal behaviour has steadily progressed, there remain several important gaps in the literature, including a need for more research on effective and acceptable methods for the early identification of mental health problems and potential suicidal behaviour through school-based screening and assessment (Levitt et al, 2007). In a recent study by Bansal et al (2009) prevalence of depression and distress was found to be around 20% and 15% respectively in adolescents of a public school in India.

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The risk relationship between depressive symptomatology and suicidal ideation has been found to be different for adolescent males and females. The results indicate that even moderate levels of depressive symptomatology can be associated with suicidal ideation (especially among young females) and that for these young people a suicide risk assessment is required (Allison et al, 2001).

Keeping all these points in mind, this study was conducted to compare suicidal ideations in male and female school going adolescents and to search for important correlates of suicidal ideation like depression and anxiety.

MATERIALS AND METHOD

Sample

Sample consisted of 259 school going adolescents from X to XII standards. They were selected through stratified random sampling method from three different private as well as government schools of Kanke, Ranchi, Jharkhand (India).

Study design

It was a school based cross-sectional one time observational study using simple screening instruments for detecting suicidal ideation along with depression and anxiety in school going adolescents.

Inclusion criteria

1. Adolescents of both sex studying in Xth, Xth and XIth class with age range of 13-19 years

2. Understanding English and Hindi languages

Exclusion criteria

1. Any medical or psychiatric illness requiring medication at present

2. All students who had taken any such screening tests before

3. Any past history of diagnosed mental illness

Tools

1. **Socio-demographic performa (self prepared)**: This was a self prepared semi structured performa especially designed for this study. It contained information about socio-demographic characteristics like age, sex, race, standard (education), living pattern, domicile and socio-economic status.

2. **Suicidal Ideation Questionnaire (SIQ; Reynolds, 1988)**: The SIQ is a 30-item self-report questionnaire that is used to screen for frequency of suicidal ideation in adolescents. The item response format of the SIQ ranges from 0 (I never had this thought) to 6 (almost every day). Each item addresses a specific suicidal cognition (e.g., "I thought about how others would feel if I killed myself." "I thought about how I would kill myself." "I thought that killing myself would solve my problems"), and evaluates the frequency of the cognitions during the past month. The SIQ is scored in a pathological direction, with higher scores indicating greater severity of suicidal ideation. The psychometric properties of SIQ have been supported in several clinical and nonclinical adolescent samples. For the total SIQ score, the recommended raw cutoff score indicative of the potential for suicidal risk is 41 (Reynolds, 1988). It is important to recognize that the SIQ and its cutoff score are not designed to be predictive of suicidal behaviours such as attempts, but as indicators of youngsters’ current levels of suicidal ideation.

3. **Hospital Anxiety Depression Scale (HADS; Zigmond & Snaith, 1983)**: This scale is a self assessment instrument for detecting anxiety and depression in vulnerable population. There are 14 items (7 for anxiety and 7 for depression). Each item is rated on 4 points (0-3) rating scale. A score of more than 10 indicates definite presence of anxiety or depression. HADS has been found to a valid screening tool to assess depression and anxiety both in somatic, psychiatric, and primary care patients and in the general population (Bjelland et al, 2002; Abiodun, 1994).

Procedure

The different high schools of Kanke, Ranchi were approached separately and the concerned headmasters of the schools were asked for the study after presenting a request letter issued by the director of the institute in which first author of this study works as a PhD scholar. Only after the consent given by the headmasters, the students of different classes were selected and given the assessment tools like SIQ and HADS. The students were instructed how to fill them in English or Hindi languages. The socio-demographic details were collected in self prepared semistructured performa. The students were instructed not to write their names to maintain confidentiality. Consent was taken from them and they were explained about the study.
Analysis of Data

The data obtained was analyzed using the Statistical Package for Social Sciences version 16.0 (SPSS -16.0) with parametric and non-parametric tests being used as applicable.

RESULTS

Table 1 gives information about the socio-demographic characteristics of all the students of both genders. Statistically no significant difference was observed in two groups in relation to age (range: 13 to 17), standard (class) of education, living pattern, domicile and socio-demographic status of the students.

Table 1: Gender Differences in Socio-Demographic Details of School Going Adolescents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Boys (N=151) Mean±SD</th>
<th>Girls (N=108) Mean±SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td>15.51±1.37</td>
<td>15.37±1.15</td>
<td>.91</td>
<td>257</td>
<td>.37</td>
</tr>
<tr>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>Non-tribal</td>
<td>113 (74.8%)</td>
<td>67</td>
<td>62</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>Tribal</td>
<td>38 (25.2%)</td>
<td>41</td>
<td>38</td>
<td>.60</td>
</tr>
<tr>
<td>Standard</td>
<td>10th</td>
<td>36 (23.8%)</td>
<td>24</td>
<td>22</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>11th-12th</td>
<td>44 (40.7%)</td>
<td>40</td>
<td>37</td>
<td>.21</td>
</tr>
<tr>
<td>Living Pattern</td>
<td>Hostler</td>
<td>16 (10.6%)</td>
<td>6</td>
<td>5.6</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>Day-scholar</td>
<td>135 (89.4%)</td>
<td>102</td>
<td>94.4</td>
<td>.15</td>
</tr>
<tr>
<td>Domicile</td>
<td>Rural</td>
<td>46 (30.5%)</td>
<td>30</td>
<td>27.8</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>Semi-urban</td>
<td>47 (31.1%)</td>
<td>37</td>
<td>34.3</td>
<td>.84</td>
</tr>
<tr>
<td>Socioeconomic Status</td>
<td>Low</td>
<td>26 (17.2%)</td>
<td>10</td>
<td>9.3</td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td>Middle</td>
<td>119 (78.8%)</td>
<td>94</td>
<td>87.0</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>6 (4.0%)</td>
<td>4</td>
<td>3.7</td>
<td>.18</td>
</tr>
</tbody>
</table>

*Significant at p<.05 (2-tailed)

But, non tribal girls were more in number than tribal girls while tribal boys were less in number than nontribal boys ($\chi^2 = 4.865; df=1; p=.027$). Overall, nontribal boys and girls were in majority than the tribal boys and girls. A future study focusing the nontribal adolescent population of both sexes can be performed to know suicidal ideation in them.

Table 2 shows that girls were having significantly more suicidal ideation than the boys ($\chi^2 = 11.93, p<0.01$). Taken together, 44.8% of adolescents had suicidal ideation out of which 57.4% were girls and 35.8% were boys.

Table 2: Gender Differences in Suicidal Ideation (SIQ Total Score: Above Cut-Off of 41) in Adolescents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Boys (N=151) n(%) Mean±SD</th>
<th>Girls (N=108) n(%) Mean±SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absent</td>
<td>97 (64.2%)</td>
<td>46 (42.6%)</td>
<td>143</td>
<td>55</td>
<td>.11</td>
</tr>
<tr>
<td>Present</td>
<td>54 (35.8%)</td>
<td>62 (57.4%)</td>
<td>116</td>
<td>44</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Significant at p<.05 (2-tailed); **Significant at p<.01 (2-tailed); HADS: Hospital Anxiety Depression Scale

Table 3 shows that HADS total score as well as HADS anxiety score were significantly higher in adolescent girls than adolescent boys. However, no significant difference was found on HADS depression score in the two groups.

Table 3: Gender differences in HADs scores (total score, anxiety score and depression score) of Adolescents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Boys (N=151) Mean±SD</th>
<th>Girls (N=108) Mean±SD</th>
<th>Mann-Whitney U</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>HADs total score</td>
<td>13.71±5.74</td>
<td>15.78±7.08</td>
<td>1662.5</td>
<td>.013*</td>
</tr>
<tr>
<td>HADs anxiety score</td>
<td>7.61±3.61</td>
<td>9.49±4.24</td>
<td>6035</td>
<td>.000***</td>
</tr>
<tr>
<td>HADs depression score</td>
<td>6.07±3.18</td>
<td>6.45±3.81</td>
<td>7770</td>
<td>.517</td>
</tr>
</tbody>
</table>

*Significant at p<.05 (2-tailed); **Significant at p<.001 (2-tailed)

Table 4 shows that there was a significant positive correlation of suicidal ideation in adolescent boys with HADS total score ($r=0.359, p<0.001$), HADS anxiety score ($r=0.401, p<0.001$), and HADS depression score ($r=0.213, p<0.01$).

Table 4: Correlation of Suicidal Ideation (SIQ Total Score) with HADs scores (Total score, anxiety score and depression score) in Adolescent Boys (N=151)

<table>
<thead>
<tr>
<th>Variables</th>
<th>r</th>
<th>p</th>
<th>r</th>
<th>p</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidal Ideation</td>
<td>.359</td>
<td>.000***</td>
<td>.401</td>
<td>.000***</td>
<td>.213</td>
<td>.009**</td>
</tr>
</tbody>
</table>

**Significant at p<.001 (2-tailed); ***Significant at p<.01 (2-tailed)

Table 5 shows that there was a significant positive correlation of suicidal ideation in adolescent girls with HADS total score ($r=0.608, p<0.001$), HADS anxiety score ($r=0.603, p<0.001$), and HADS depression score ($r=0.501, p<0.01$).

Table 5: Correlation of Suicidal Ideation (SIQ Total Score) with HADs scores (total score, anxiety score and depression score) in Adolescent Girls (N=104)

<table>
<thead>
<tr>
<th>Variables</th>
<th>r</th>
<th>p</th>
<th>r</th>
<th>p</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidal Ideation</td>
<td>.608</td>
<td>.000***</td>
<td>.603</td>
<td>.000***</td>
<td>.501</td>
<td>.000***</td>
</tr>
</tbody>
</table>

***Significant at p<.001 (2-tailed)
DISCUSSION

The present study found that 44.8% of adolescents had suicidal ideation out of which 35.8% were boys and 57.4% were girls. These findings support those of Allison et al (2001) in that suicidal ideation is different in adolescent males and females with females having increased prevalence of suicidal ideation which is indicative of the potential for suicidal risk in this particular population. Studies have consistently documented that women (Kessler et al, 1999; Klerman, 1987; Spicer & Miller, 2000) and young adults (Kessler et al 1999; Spicer & Miller, 2000; Kuo et al, 2001) are at increased risk for suicidal behaviour. Thus the increased suicidal ideation in female adolescents may be one of several factors which predict risk of increased suicidality in females even at later ages.

Among the various correlates of increased suicidal ideation and suicidality, depression has been consistently mentioned. In our study both depression and anxiety were found to be related to suicidal ideation in both adolescent boys and girls separately. In a recent Indian study, some factors like economic difficulty, physical punishment at school, teasing at school and parental fights were found to be associated with increased depression in adolescents (Bansal et al, 2009). Though the adolescent girls of our study did not differ significantly in terms of harbouring depression but it has been mentioned in previous studies that even moderate levels of depressive symptomatology can be associated with suicidal ideation especially among young females (Allison et al, 2001).

The finding of increased anxiety in adolescent girls than adolescent boys in our study is partially supported by the findings of Bansal et al (2009) in that the adolescents are more prone for distress in their day to day life. The factors like inability to cope up with studies, beating at home and parental fights are some of the common factors which have been found to be associated with increased stress in Indian adolescent population (Bansal et al, 2009). However, we could not find the proper explanation for the gender difference in the level of anxiety in adolescents as well as its implication in predicting suicidality in this population. The increased anxiety and its relation to suicidal ideation in adolescents may be a potential area of future research where emphasis should be given to the individual factors making the adolescent population anxious and at increased risk of suicidality.

There could be a limitation in generalization of the results of these findings in terms of the timing of the study where the students were having comparatively lesser load of study at the time of collecting the data. However, this problem has earlier been discussed in some previous studies of similar nature (Bansal et al, 2009) and so this is unavoidable unless multiple studies are done at different times of the year and averaged out. However the principal gain of our study should not be ignored in that it has surfaced out the issue of existence of gender differences in suicidal ideation as well depression and anxiety in adolescent population.

The evaluation of suicidal ideation has been proposed by a number of investigators and agencies as an important school-based activity for the early identification of youngsters at risk for suicidal behaviours (Eggert et al, 1995; Garfinkel, 1989; Reynolds, 1988; 1991). Now the special emphasis is expected to the issue of gender difference in this area, as highlighted in our study as well as by other researchers (Allison et al, 2001). There should be awareness among the teachers as well parents about this common but ignored problem and intervention based programs are needed to address the needs of this vulnerable group and not to let them suffer silently.

REFERENCES


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3. Dr. Amool Ranjan Singh, Director and Professor of Clinical Psychology, Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS), Kanke, Ranchi- 834006.
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As per the World Health Organization (WHO), suicide is a huge but largely preventable public health problem, causing almost half of all violent deaths and resulting in almost one million fatalities every year, as well as economic costs in billions of dollars. Volumes have been written on this intriguing phenomenon and an obvious question that pops up in the reader's mind is: Does this book offer something different or is it just another addition to a long queue of academic compilations?

The book is divided into two major sections: Theoretical issues related to assessment of suicidal behaviour and assessment of people at risk for suicide. There are nine chapters in the first section.

The opening chapter on the psychological aspects of suicide by O'Connor delves into the biopsychosocial model along with important psychological models like escape, entrapment, cry for pain and socially prescribed perfectionism. Supplementing the theoretical discussion with real life patient accounts goes a long way in enhancing understanding of the theoretical constructs. The second chapter deals with the empirically based methods of assessing suicide risk. The best part of the chapter is how to categorize patients as per the risk of suicide and the empirically validated methods of intervention thereof.

In the third chapter on the neurobiology of suicide, Trivedi and Verma stress on the potential importance of biological and genetic markers in predicting the risk for suicide. The next chapter on deliberate self-harm focuses primarily on impaired problem-solving ability as a cause of such acts. Though limited in its perspective, the chapter details the role of cognitive behaviour therapy as well as problem solving skills training in preventing deliberate self-harm. The next chapter on suicide and homicide describes violence as a common denominator between the two. Based on available evidence, an attempt has been made to show how both these behaviours lie along a continuum. The following chapter explores the role of culture in suicide. While certain risk factors are shared by all cultures, other risk factors may be unique or specific to certain cultures. The author very aptly points out how religious and spiritual factors, despite playing an important role in suicide, have not been given any weightage in suicide assessment scales. The chapter on gender and suicide examines the gender paradox: Why women attempt suicide more frequently though more men die of it. The difference among the genders is explored in terms of socio-economic risk factors, choice of methods, help-seeking behaviour and their implications on treatment. The next chapter provides important insights into varying risk factors across different developmental stages. The mention of differential presentation of risk factors across life span and its impact on assessment of suicide serves an important clinical purpose. The best part of this chapter, however, is description of warning signs common across life span. The final chapter of the first section deals with an important and relevant issue: Impact of the media on suicide. Related concepts like "suicide contagion" and "cultivation theory" are explained lucidly. The chapter ends with a mention of guidelines for the media on how to report suicide.
Section II deals with population groups which are at an increased risk for suicide. The first chapter deals with various available tools for assessment of suicide. The author evaluates the scales, criticizes them for the lack of universal nature and predictive value and finally recommends a battery of direct and indirect measures to assess better the risk of suicidality. The following three chapters deal with three important groups of psychiatric disorders who are vulnerable to suicide—substance abuse, bipolar disorder and depression. The penultimate chapter discusses various protective and risk factors related to suicide in military settings. The concluding chapter deals with a highly vulnerable age group in terms of suicide—adolescents. The chapter looks at adolescent suicidality from an Asian perspective and discusses various risk factors.

The book has several plus points, the two most important ones being lucidity of language while maintaining a continued focus on the practical approach and getting together contributors from various countries providing a global view to a universal problem. Illustrations, wherever necessary, have served to enhance clarity of understanding. However, like all good works, this book is also not free from lacunae. Two major groups of psychiatric disorders in terms of vulnerability to suicide have been left out: Schizophrenia and Personality Disorders. Among special populations, the geriatric group deserved a mention. Like military people, suicide among farmers should have found a place in this book as it is currently assuming greater importance in the Indian context. Related to popular media but having a sizeable impact on today’s generation, the role of internet on suicidal behaviour deserved a detailed discussion. Lastly, suicide among medical professionals across various specialties would have been an interesting entry!

Coming back to the question at the beginning, I would conclude in the affirmative: This book indeed serves what it purported to serve—an overall perspective which is holistic and different. It should be of great help to all those professionals who intend to stop all the hapless souls standing at the edge of the precipice, as depicted in the cover illustration!

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CALL FOR PAPERS

Editor, IJSP Invites Original Papers in the Heading of Review Articles, Original Research Papers, Brief Communication, Case Series and Reports for Publication in IJSP. Please Refer to 'Instruction for authors' for Details
A JOURNEY THROUGH PTSD

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 always considered myself unfortunate for being the loco-pilot of the goods train that collided with the derailed express train. As a result of some mishap with the other train, our train got derailed and few of its coaches were lying on the railway track of where our train was moving. The loco-pilots of the Express train could not warn me and what happened later was a disaster that remained etched in my mind forever. I recollect only a few incidents before the actual collision took place. I had sustained a few injuries. The rescue team arrived and I was taken to a railways hospital by a helicopter. There, I was admitted in the Intensive Care Unit. I remained very afraid during my stay there.

The entire scene of that disastrous accident kept on coming in mind, similar to a movie and, in spite of my wish, I could not stop that movie from running in my mind. The scene was very clear, passengers were crying for help to save their lives, dead bodies laid and human body debris scattered, wailing sounds being heard, the helpless cry of my assistant loco-pilot and his efforts to save his own life - all of these flashed in my mind. I remember the darkness of the night; I also recollect how helpless I felt. I was not able to help anyone when so many people needed help. I would become very distressed whenever these scenes used to flash in my mind. I tried to control these scene coming up in my mind but every time I failed. I began to sense how that accident’s memories came to dominate my mind and affect my life so dramatically. I started losing confidence in myself. In the past, I had witnessed a few minor accidents while being an assistant loco-pilot did not amount to loss of lives. However, this time it was different. I was the loco-pilot and had the full responsibility of my own train and that of my assistant loco-pilot. The shock that I got was not only due to the huge responsibility I had on my shoulders, but also from the fact that I was somewhat responsible for the heavy suffering and loss of many innocent lives. That haunted my mind. I began blaming myself for the entire accident. In the ICU, I was unable to sleep and, though I was given heavy doses of sleeping pills I could hardly sleep. The slightest sound would wake me up from sleep; the slightest noise while I was awake would take me by surprise and made me frightened.

After being discharged from the ICU, my life was even more miserable. I was hardly able to have sound sleep. I would frequently get up from sleep after horrible dreams of the accident to find myself distressed and scared. The moment I would get up I would be in a confused state. I would feel as if I was at the accident site at that unfortunate moment and as if I still had the power to stop things from happening as they had happened. Then, I would see that I was very much in my home and I would find that I had urinated and passed loose stools on the bed without my knowledge of having done so. This began occurring more frequently as the days passed, at times happening about ten-fourteen times in a night. The accident not only hampered my life while I was awake but also started infiltrating into my sleep, and this only increased my helplessness further.

The smallest cues in the form of scenes in movies, newspapers mentioning anything about trains aroused fear in me. I began avoiding people and crowded areas, getting irritated with slightest of the noise. Even when my son would happily laugh aloud and scream while playing I would get irritated and shout at
him, even slapping him at times. I observed that I became angry on my family members for trivial reasons and lost my temper often. I began avoiding my family and kept myself away from them. Gradually, I even stopped going out of home altogether, was unable to travel in vehicles, covering my ears and eyes, and was not able to resume my duties. I was not able to live normally. I lived a life burdened with recurrent fears and with guilt. Finally, my wife and my brother suggested that I take psychiatric help taking into account how my life was affected. I was referred to the psychiatric clinic in the railways hospital. I was given some medicines there, which I took with the hope of recovering. There was no improvement there either, after which I was referred to a tertiary government psychiatric institute.

I was advised to take admission but I refused. However, I changed my mind, under the pressure of my family and after the need for it was explained by doctors there. I had a notion of patients not being well attended to in such hospitals but during my stay there I was proven wrong. The entire mental health team attending to me were not only kind but efficient in consoling me, providing a sense of comfort. Gradually, I felt there was hope when I had lost it all. The medicines were provided after elaborate discussions and I began to see my progress in time. What helped me recover significantly was the labour-intensive therapy and counselling. I was taught to overcome my fears and be positive in my outlook of life during my stay of four months in the institute. After being discharged, I still continue my treatment from that institute, with a sense of gratitude. I now work in the railways in whatever capacity, often dealing with the paper work of the office. I can travel in automobiles, though I need someone's company. I am able to drive my two-wheeler to work now. Though I am unable to resume my job as a loco-pilot, I lead a meaningful life, a life with hope in future and confidence in myself.

Translated and compiled by
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AWARD RULES OF THE INDIAN ASSOCIATION FOR SOCIAL PSYCHIATRY

BALINT AWARD

Institution of Balint Award is made out of an endowment on behalf of the Foundation of Psychosomatic and Social Medicine by Dr. Med. Dr. H.C. Boris Luban-Plozza, CH 6612 Ascona, Collina, Switzerland.

In this IASP members are invited to submit a paper based on their personal experience of relationship with patients.

Four copies of the paper, maximum 10-12 pages of A4 size, typed in double space, must be submitted to the Chairperson, Awards Committee, by the stipulated date.

It must be a single-authored paper. The author must be a member in good standing of the IASP, with a minimum of 5 years of professional experience.

The paper shall be rated on the basis of written manuscript on the following criteria.

1. Exposition: The presentation of a truly personal experience of a therapist-patient relationship (Manuscripts of a former medical thesis or diploma cannot be accepted).

2. Reflection: A description of how a therapist actually experienced such a relationship, either individually or as part of a treating team. This could reflect multiple relations between therapist and the staff of various specialties, and working routine within different institutions.

3. Action: The therapist's perception of the demands he or she felt exposed to and an illustration of how he then actually responded.

4. Progression: A discussion of possible ways in which future medical and paramedical training might enhance the state of awareness for individual care giver, a procedure which tends to be neglected at present.

The paper shall be presented at the Annual IASP Conference. Written text and presentation will carry 60% & 40% marks respectively.

To be eligible for presentation, the written version must score at least 50% (30 out of 60) marks. The paper receiving maximum total marks will be adjudged as winner. The Award winning paper must secure not less than 50 per cent of the full marks. Decisions of judges shall be final. Award shall be won only once by any author.

The judges assessing the paper for Award shall not contest for the Award. Members of the Awards Committee, if desirous of presenting the paper, must secure not less than 50% of the total marks. Decisions of judges shall be final and binding on all concerned.

None of the judges assessing for the award shall be contestant for this award. However, a judge is eligible to contest for any other award.

All the authors of the winning papers shall be considered to have won the award and will be issued certificates. The award money will be shared by the all the authors. The award winning paper shall be accepted for publication in the Indian Journal of Social Psychiatry for which purpose it shall be passed on to the Editor by the Chairman, Award Committee. If the author desires to publish the paper in any other journal he shall be required to obtain a prior permission from the Editor of the Indian Journal of Social Psychiatry.

The announcement of the Awards shall be made at the annual general body meeting. In all the matters pertaining to the Awards, the decision of the Council shall be final and binding on all concerned.

DR N.N. DE ORATION AWARD

(As approved by the Executive Council on 5 January, 1991)

Rules for the award

1. The oration award will be declared one year in advance at every annual conference of the Indian Association for Social Psychiatry.

2. Any member of the IASP can propose the name of any other member of the IASP for the oration award. The proposal including six copies of the bio-data of the nominee must be submitted to the Chairman, Awards Committee by a date determined by the Council of the IASP. The proposal must be accompanied by a written consent of the nominee.
3. A panel of judges shall rate the nominations. The nomination securing the highest total marks (out of 100) shall win the award, subject to ratification by the Awards Committee and the council of the IASP. In case of tie, the concerned nominations shall be re-assessed by another panel of judges. To win an award not less than 50% of the full marks must be obtained by a nominee.

4. The oration paper will become the property of the IASP and shall be published in the Indian Journal of Social Psychiatry with necessary editorial corrections. The speaker will pass on the oration paper to the Editor, Indian Journal of Social Psychiatry as soon after the annual conference as possible for publication in the Journal.

5. The speaker can choose any topic for the oration. He shall intimate the title of the oration to the Chairman, Awards Committee at least three months prior to the Conference.

6. The speaker will be paid a lump sum for the oration. He will also be awarded a suitable scroll.

7. No person shall win the award more than once.

DR. V.K. VARMA AWARD
(As approved by the Executive Council on 9 January, 2009)

Dr V.K. Varma Award was approved by the General Body of the Indian Association for Social Psychiatry held at New Delhi on 29 November 2008. The award has been instituted out of a donation from Professor V.K. Varma, a Past President of the Association. The first award will be given in the year 2009. The award would consist of a scroll and a cash award of Rs.10000/-. The award is open to all the members who have published a paper in psychiatry based on original research in any Indian Journal in the preceding two years (for example, papers published during July 2007-June 2009 for the conference to be held in the year 2009) would be eligible to apply for the VK Varma Award. The first author and 50% of the total authors should be a member of the IASP. For consideration for the award, four copies of the published paper must be submitted to the Chairman of the Awards Committee by a date to be determined by the Executive Council.

None of the judges assessing for the award shall be contestant for this award. However, a judge is eligible to contest for any other award.

All the authors of the winning papers shall be considered to have won the award and will be issued certificates. The award money will be shared by the all the authors.

DR. VENKOBHA RAO ORATION AWARD
(As approved by the Executive Council on 9 January, 2009)

Dr Venkoba Rao Oration Award was approved by the General Body of the Indian Association for Social Psychiatry held at New Delhi on 29 November 2008. The award has been instituted out of a donation from Professor A Venkoba Rao, Founder President of the Association. The award would consist of a scroll and a cash award of Rs.10000/. The oration award will be declared one year in advance at every annual conference of the Indian Association for Social Psychiatry.

All the members of the Indian Association for Social Psychiatry can send nominations for any outstanding mental health professional above the age of 55 years, who has contributed in the field of social psychiatry. The nominee may or may not be a member of the IASP. The nomination would be in form of Curriculum Vitae (CV) of the nominee along with his/her consent. Four copies of the CV of the nominee along with his/her consent must be submitted to the Chairman of the Awards Committee by a date to be determined by the Executive Council.

None of the judges assessing for the award shall be contestant for this award. However, a judge is eligible to contest for any other award.

DR. B.B. Sethi Award was approved by the General Body of the Indian Association for Social Psychiatry held at New Delhi on 29 November 2008. The Award would be given to the best poster presented in the Annual National Conference of the Indian Association for Social Psychiatry. The award would consist of a scroll and a cash award of Rs. 5000/ and Rs. 3000/ for the best and second best posters and be given by the organising committee of the conference.

For any paper to be considered for either award, it must be based on research work done in India on any aspect of social psychiatry. It must not have been published in a scientific journal, not presented at a national and international conference earlier. The principal author and at least 50 percent of all authors must be members of the IASP at the time of the conference. Not more than two papers will be considered from any member, as the principal author for the award.

For consideration for either award, four copies of the full paper must be submitted to the Chairman of the Awards Committee by a date to be determined by the Executive Council. The papers should be prepared in accordance with the "Instruction to Contributors" of the Indian Journal of Social Psychiatry. It or a significantly similar paper must not have earlier received an award of the IASP.

The papers submitted shall be rated both on the basis of written manuscript and the presentation which will represent 75 per cent and 25 per cent, respectively of the total marks of assessment. To be eligible for presentation, the written version of the paper must secure at least 40 per cent of the full marks allotted for the written version (i.e. 30 out of 75). The paper securing the highest total marks shall win the award. Furthermore, the award winning paper must secure not less than 50 per cent of the full marks.

None of the judges assessing for the award shall be contestant for this award. However, a judge is eligible to contest for any other award.

All the authors of the winning papers shall be considered to have won the award and will be issued certificates. The award money will be shared by the all the authors.
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.


**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 for 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.

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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.iasp.org.in 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.
Mr. President and Members

I am happy to present before you the Seventeenth Report of the Association for the period 2009-2010. This is a great occasion that IASP is having its national conference for the first time in the state of Kerala, God’s own country this year, being organized here at Kochi on 19-21 November 2010. We have moved back to the South India after having our two previous conferences in the cities of Delhi and Lucknow in 2008 and 2009 respectively. I would like to put on record my thanks to Dr P Joseph Varghese and Dr K Roy Abraham for inviting this conference in Kochi and for their excellent arrangements. You can access the activities of the Association at its website (www.iasp.org.in), which is updated periodically. You can also access the Indian Journal of Social Psychiatry on the website.

I will be briefing you about all the developments in the Association which have taken place since the time we met the last on 16 November 2009 at Lucknow.

In the last one year, Executive Council of the IASP met at Jaipur on 18.1.2010 and at Delhi on 1.8.2010. The office of Secretary General continues at the All India Institute of Medical Sciences, New Delhi. I am happy to inform you that this year our association has become a voting members of the World Federation of Mental Health (WFMH).

Another grand achievement of IASP has been that Professor K Roy Abraham, our President Elect has been elected Secretary General of the World Association for Social Psychiatry at the XX World Congress of Social Psychiatry, Marrakech, Oct 23-27, 2010.

Amendment process of the Mental Health Act: IASP has been invited to the discussion process on the proposed amendments of the Mental Health Act, 1987. Prof K Roy Abraham, President Elect, IASP and Prof R.K.Chadda, Secretary General attended the consultative meetings organized at Chandigarh and Bangalore respectively by the Ministry of Health & Family Welfare, Govt. of India.

Achievements of members: Many of our members had distinguished achievements in the last year. Prof K Roy Abraham was elected Secretary General of the world association for Social Psychiatry (WASP). Prof Roy Abraham was also the Chairperson, WASP’s New Member Societies Development Committee. Prof T Murali, a senior fellow of the IASP has been elected Vice President of the World Association for Psychosocial rehabilitation for 3 years. Our members Sharita Shah, Rudra Prasad Chakraborty, Arshad Hussain and other received Young Psychiatrist Fellowship for WASP, Marrkech. Prof SD Sharma, Roy Abraham Kallivayalil and JK Trivedi represented IASP at the General Assembly of WASP at Marrakech.

Council meetings held and important decisions taken during the years 2009–2010: During the year under review, two meetings of the Executive Council were held on 18.1.2010 at Jaipur and on 1.8.2010 at Delhi. EC has decided that corpus for various IASP awards should be put as FDs, which has been done for most of the awards. For the rest the corpus needs to be increased and will be put in FDs subsequently. Dr Joseph Varghese and Prof Roy Abraham invited the XVII National IASP conference (NCIASP 2010) to Kochi during the EC meeting held at Jaipur on 18.1.2010, which was duly approved by the Council. The EC meeting of 1.8.2010 discussed about organizational arrangements of the NCIASP 2010.

Indian Journal of Social Psychiatry (IJSP): IJSP is currently being published from Central Institute of Psychiatry, Ranchi with Professor V.K. Sinha as the current editor. The issues from the year 2006 onwards can be freely accessed on the Association’s website.

Prof V.K. Sinha has brought out issues of the journal for the year 2009 and those for 2010 are also ready. All the old issues have been dispatched to the membership. I would like to request the members to send their research work for publication to the Journal. Members who have presented papers in this conference must also send their manuscripts for publication, which could then be peer reviewed for publication. The work done by Prof Sinha is creditworthy and he deserves full appreciation from the membership.

Treasurer office: Dr Adarsh Kohli, Hon Treasurer, IASP has been doing a wonderful job. She has been able to clear the back log of audits of accounts of IASP since 2004, which could not take place earlier as the previous treasurer had not transferred the balance to the new office. IASP has also applied for PAN No. The financial position of the Association has improved a lot under the treasurership of Dr Kohli.

Silver Jubilee Conference of IASP: IASP celebrated its silver jubilee last year in 2009. The Silver Jubilee Year Conference was organized by the Department of Psychiatry, Chhatrapati Sahuji Maharaj (CSM) Medical University at its Convention Centre at Lucknow on 15-17 November 2009 under the leadership of Professor J K Trivedi. Dr Vivek Agarwal and Dr Anil Nischal were the Organizing Secretaries of the conference. The conference was cosponsored by the World Psychiatric Association. The theme of the conference was ‘Mental Health: Prioritizing Social Psychiatry’. The conference was attended by over one hundred and fifty mental health professionals from not only India but also from different parts of the world including USA, UK, Australia, New Zealand, South Africa and Sri Lanka.

Indian Journal of Social Psychiatry (IJSP): IJSP is currently being published from Central Institute of Psychiatry, Ranchi with Professor V.K. Sinha as the current editor. The issues from the year 2006 onwards can be freely accessed on the Association’s website.
Growth of Membership: I wish to inform you that the trend of growth in our membership has been maintained throughout the period under review. As a part of membership drive we have been able to expand our membership to 591. We are paying regular dues to the World Psychiatric Association as a member society. The current membership stands as:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Fellows</td>
<td>366</td>
<td>(Hon. Fellow: 1; Life Fellows: 336; Fellows: 29)</td>
</tr>
<tr>
<td>Associates</td>
<td>225</td>
<td>(Life Associates: 210; Associates: 15)</td>
</tr>
<tr>
<td>Total</td>
<td>591</td>
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The Organizing Committee of the NCIASP 2010 has been gracious enough to bring out the new updated directory of the IASP. Some of our members have not been paying their dues regularly. It is my earnest request to all the defaulting members to pay their dues. I would request them to become life members. I would also request all the members to bring their professional colleagues and friends to the IASP fold, to attend the conferences in more and more numbers and also to contribute to the journal of the Association.

Participation in WPA ICD 11 Survey: IASP participated as a member society in the World Psychiatric Association’s survey of psychiatrists for ICD 11.

Awards: IASP encourages scientific research by the membership. To encourage the research in various fields of social psychiatry, the Association has instituted many awards, number of which has also grown, as the Association is growing. The awards are given every year in the national conference. Last year’s winners for various awards were:

- Dr N.N.De Oration Award (to be delivered in IASP conference, 2010): Prof J.K.Trivedi
- Balint Award: Dr Nitin Gupta for his paper on “The Conundrum of Emotionally Unstable Personality Disorders”
- Dr G.C.Boral Award-I: Dr Mamta Sood, Pratap Sharan, Shivanand K, A Shyamsunder, V Sreeniwas for their paper “Prospective Longitudinal Study on Duration of Untreated Psychosis in Patients with First Episode of Psychosis”
- Dr G.C.Boral Award-II: Dr. KS Pavitra, Dr KR Sridhara for their paper “Culture and depression – a study of change and depression in Havik Brahmin women of South India”
- Dr. B.B.Sethi Award: Dr. Anil Nischal, Dr Himanshu Sareen, Dr J.K. Trivedi for their poster “Burden of care on the key relatives of schizophrenics”
- Dr. V.K.Varma Award: Dr P.N.Suresh Kumar, Biju Thomas for the paper “Family intervention therapy in alcohol dependence syndrome: a follow up study”

Prof J K Trivedi has raised the corpus for Dr BB Sethi Award for the two best posters presented during the national conference. Prof K Roy Abraham has raised the corpus for Dr Venkoba Rao Oration Award. IASP is grateful to them for their efforts.

Committees and Task Forces:

IASP has a number of sub committees, which are chaired by a senior fellow and have at least 5 members. The sub committees include constitution and bye laws committee, programme committee, ethics committee, elections committee, CME committee, awards and oration committee and membership committee. All the committees have been working hard to meet the objectives of the Association. In 2008 conference, it was decided to constitute 3 task forces on ‘Mental health legislation’, ‘Mass media and mental health’ and ‘Mental health policy’. Professor R Srinivasa Murthy, Professor A K Kala and Dr U C Garg respectively are the conveners of these task forces. All the committees and task forces have been working efficiently in their areas.

In the end, I would like to express my sincere gratitude to all the membership, EC, members and officer bearers of the Association for entrusting me with this job and helping me in running the office smoothly. I am especially grateful to Professor R.C. Jiloha, Acting President, Professor K Roy Abraham, President Elect, Professor V.K. Sinha, Editor, Dr Adarsh Kohli, whose regular inputs have helped in rejuvenating the Association. I am also grateful to Professor S.K. Khandelwal, Member Executive Council, whom I frequently trouble for regular guidance. I would also like to thank my other department colleagues especially Prof R Ray, Head, Department of Psychiatry, Professor M Mehta, Professor P Sharan and Dr Rajesh Sagars. I would also like to express my thanks to Dr Mamta Sood, the Assistant Secretary General and Mrs Renu Prashant, my PA who have always been helping me in running this office with full efficiency. In the end I would like to again thank all the membership of IASP, who have entrusted me with this responsibility.

In the end, I would like to again thank all for your guidance and support, which has enabled me to discharge my commitments and responsibilities as your Secretary-General.

November 20, 2010

Prof. Rakesh K Chadda
Secretary-General
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