A PROSPECTIVE STUDY OF PARASUICIDERS ADMITTED IN A TERTIARY CARE MEDICAL COLLEGE HOSPITAL WITH SUGGESTED REMEDIAL MEASURES FOR ITS PREVENTION

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Abstract

Parasuicide (Greek "παρά", *para*-, "near" or "resembling", + suicide) refers to suicide attempts or gestures and self-harm where there is no actual intention to die. It is considered to be a serious public health issue. Parasuicide is an indicator for a future successful suicide attempt. Parasuicide is sometimes preferred to be called "Deliberate Self – Harm (DSH)" because this term is unprejudiced and communicates more understandable and definite description. The current article deals with a prospective study that was conducted to analyze the spectrum of suicide attempters, admitted to Shri. Chhatrapati Shivaji Maharaj Sarvopchar Rugnalaya, general hospital, Solapur, India, over a period of two years (1st Dec 2001 to 30th November 2002). The study comprised a total sample population of 225 cases, of whom 57 died and 168 survived the attempt. These 168 people were taken as study subjects. The results were tabulated, analyzed & discussed in this article.

Key words: Parasuicide, attempted suicide, pseudocide, morbidity & mortality.

Introduction

It is a proven fact that all the living organisms on this earth fight for survival and existence. What then makes the man to risk his own life? The tragedy of self-inflicted death has always attracted the attention of the medical as well as the legal fraternity. Although it is quite obvious that one has to 'attempt' suicide in order to 'commit' it, it could be held that the event of attempting suicide need not always have death as its objective. Parasuicide is thus defined as a 'conscious and voluntary act which the individual has undertaken in order to injure oneself, and which the individual could not have entirely be certain of surviving, but where the injury has not led to death'. The term 'Parasuicide' is used synonymously with 'attempted suicide' to express the fact that it is a phenomenon which is close to or similar to suicide but nevertheless different.[1]

Parasuicide or attempted suicide is a grave problem and a major concern to the society, which sometime or the other affects the lives of a significant proportion of the population. It could not be taken casually, for it may prove as equally dangerous as suicide itself and sometimes more than that because of the residual temporary or permanent disability.

The incidence of parasuicide is influenced by the differences in age, sex, race, religion, culture, marital status, habitat, climate and social systems.[2] Most of them are psychologically

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upset. Often they ingest drugs to overcome or end their life. Sometimes it acts as a way of expression of feelings which they are unable to express in other harmless ways.

Material & methods

The study designed was a hospital based one; a prospective study conducted in the general hospital, Solapur during 1st Dec 2001 to 30th November 2002. The study was conducted on patients admitted for attempted suicide. The patients were interviewed with the help of a predesigned proforma and were followed till discharge. The proforma consisted general particulars, family history, mental makeup of individual, stress factors if any, method employed, etc. Those who died during the treatment were excluded from the study. Doubtful cases and accidental cases were also excluded. There were 225 cases of suicide, of which, 57 died while undergoing treatment. The survivors 168 cases were considered to be parasuicide cases which were included in the study.

Observations & results

Of total 225 cases reported, 75% survived the attempt of suicide and 25% succumbed to it. Men (74%) outnumbered women. This is consistent with the studies of Osama A & Lonquist, , Eferakeya & Howtan et al.[3,4,5] But this is in contrast with the observations of Bhatia et al., Tuzun et al., Blumenthal, Platt et al., Wunderlich et al. [6,7,8,9,10]

Majority of the victims (33.9%) belonged to 25-34 years age group. The young people are much more prone to get shattered by the turbulence of life easily, hence, they opt for deliberate self-harm over trivial issues and make non-fatal suicidal attempts, where the intention to kill may be lacking.[1,11,12,13]

Twenty four percent had education up to primary School. Low education is considered as an important risk factor.[8,14] The result of chi-square test for literacy status in our study was highly significant ($x^2 = 26.8$, df = 4, $p<0.001$).

Manual laborers topped the list (52.6%). This could be explained on the grounds that, manual laborers, due to illiteracy, ignorance and poverty, attempt suicide more often than the other sectors of the society. Our findings are consistent with those of Bhatia et al and Singh et al.[6,15] But Tan observed that skilled and administrative professionals are at a higher risk of attempting suicide.[16]

People belonging to lower economic class comprised about 58.3%. By virtue of their hand to-mouth existence, they fail to nurture their dreams, end up attempting suicide due to desperation. Their problems may be compounded by unemployment, failure in crucial examination or love affair etc.

Majority of the cases were married (54%) consistent with Indian literature.[6,15] But contrast with most of the Western studies where highest incidence of parasuicide was observed among unmarried and lonely individuals.[17-20] Our study shows that, in Indian set up, different psychological factors related to marital or family life might be operating for parasuicide.

About 64% percent of the victims belonged to nuclear families. The demanding nature of nuclear families, coupled with stress, strains and there is no one to shoulder their agony, causes these people to attempt suicide more often compared to their counterparts who are somewhat 'secured' in the joint families. The

people living in undivided families have psychological and financial support making an individual more balanced and stable who can face crisis amicably.

Discussion

Very less information is available in the literature regarding the parasuicdes. One of the reasons could be that, not all parasuicidal acts are reported officially. They visit the hospital only when there is a serious threat to life but often without registering cause for their attempt. This is to avoid various medico-legal hassles.[21]

The important risk factors for parasuicide are lower socio economic status, unemployment, singletons during adolescence, widow or widower and the people in the geriatric age group.[22] The lifetime risk for suicide is about 2 to 4 times higher for men than for women, whereas women are 3 to 9 times as likely to attempt suicide compared to men.[23] Wunderlich U. points out males to be more success oriented who tend to show more aggressive, risk taking and injury producing behaviour than their female counterparts.[23] It was also pointed out that adolescent males use more lethal suicide methods, which increases the probability of completed suicides and at the same time decreases the likelihood of humiliation, which probably would correspond with a failure of the suicide.[23]

It has been observed that the female suicide attempters showed suicidal thoughts and suicide attempts significantly more often, and at a much younger age than the males. Furthermore, the females experienced sexual abuse followed by anxiety disorders much more often, which in turn makes them vulnerable for attempting suicide. Some studies have indicated suicidal tendency during menstrual period due to hormonal changes resulting in mood fluctuations. On the other hand, the male suicide attempters showed higher rates of alcohol disorders and financial problems.[23] The other factors precipitating parasuicide as per various studies are relationship problems such as 'live in relation', physical disability, disturbing chronic ailments, neglected & abused by near and dear and legal problems, etc.

Various studies have shown gender differences in suicide attempters with regard to the type and extent of mental and addiction disorders. One such study points out that panic disorders and depressive syndrome were the major risk factors for suicide attempts in females than in the males. Alcohol dependence and illegal drug consumption was found as nearly twice the rate in men than in women.[23] However, in a study conducted on alcohol dependent patients, females attempted suicide more often than males.[24] The methods adopted for parasuicide were poison consumption (78.6%) and burns (21.4%). The method of choice adopted by males was poison consumption (organophosphorous, followed by organochlorines and aluminum phosphide) as they are easily available. Still about 70-80% people reside in rural & suburb areas. Many earn their livelihood by agriculture and pesticides are available to them easily. Thus pesticide poisoning is a major public health hazard in India. However, method of choice adopted by females was burns, may be because they were often housewives and confined to indoors. Attempt to suicide is often an impulsive act and a house wife may opt for burns or hanging using any available material at home. Sedatives are commonly used in cosmopolitan cities due to

awareness, abuse and easy availability. In UK 90 % cases of parasuicide are by drugs (anti-depressants, followed by paracetamol, asthmatic agents, benzodiapines and anti-epileptics).[25]

The rates of parasuicide and successful suicide are increasing, especially among young men. Despite research and awareness campaign, we are no closer to stopping this phenomenon. There may be number of reasons; however, two issues are probably central. First, suicidal behaviour should be considered along a continuum, as much of the work carried out to date views deliberate self-harm and completed suicide as separate phenomena, or at best as overlapping population. As a result, research into these areas has been polarized to some degree and has not benefited from an integrated standpoint. For example, somewhere in the region of 40 per cent of completed suicides have a history of self-injury, irrespective of whether, at attempt, they intended to kill themselves. For this reason itself suicidal behaviour should be considered in terms of a continuum. Second, suicidal behaviour remains stigmatized especially in India and is still firmly rooted in the domain of 'abnormal' behaviour. At the very best this is unfortunate, and at the worst, this represents a hindrance to those who are vulnerable to suicide, who will not seek help from the healthcare services for fear of stigma. Suicidal behaviour, irrespective of how you define normality, should not be considered abnormal. So far, research has focused on suicide as a disease, reinforcing the notion that mental illness is a precursor to all suicidal behaviour. But, it now seems that more of those who kill themselves have not acquired a psychiatric diagnosis or been in contact with the healthcare services.[26]

As per Section 309 of the IPC, 'whoever attempt to commit suicide and does any act towards the commission of such offence, shall be punished with simple imprisonment for a term which may extend to one year, or with fine, or with both'. In many countries, attempt to commit suicide is regarded more as a manifestation of diseased condition of mind deserving a treatment and care rather than as an offence to be visited with punishment. In this context, the constitutional validity of Section 309 IPC was challenged and the Supreme Court observed that the provision for punishing the attempt to commit suicide is irrational. It also held that the act of attempted suicide neither has any baneful effects on the society, nor is harmful to others. However, this decision was subsequently reversed and it has been held again that the provision for penalizing the attempt to commit suicide is not unconstitutional. The person who attempts requires psychiatric counseling and a sincere attempt to address his/her precipitating factors. But it is unfortunate that Indian law proceeds to prosecute a survivor. As a result of this the dejected and depressed person may attempt much more vigorously to end life. The psychiatric counseling must be made mandatory to all those who survive a suicidal attempt.

Conclusion

In the present study, of 168 cases, men (74%) outnumbered women, majority of the victims (33.9%) belonged to 25-34 years age group, primary school constituted the major bulk (24%) of the study population, manual laborers topped the list (52.6%), subjects from lower class attempted suicide more often (58%), married people(54%) outnumbered unmarried, 64%

percent of the victims lived in nuclear families. The result of chi-square test for literacy status in our study was highly significant ($x^2 = 26.8$, df = 4, $p<0.001$).

It needs to be emphasized that easy and quick accessibility to various means of suicide attempts increases the number of attempts. In India, counter sale of sedatives, hypnotics and pesticides without prescription & scrutiny worsen the situation. Parasuicidal acts are powerful predictors for both further suicide attempts and for completed suicides. Hence the investigation of risk factors for suicide attempts is of paramount importance, particularly for issues pertaining to prevention of further such attempts and also completed suicides. There is a need for serious thinking for abolishing section 309 IPC and stringent laws to curb unlawful sales of dangerous drugs and pesticides.. Parasuicide also affects relatives, friends and those involved in investigation and treatment. They may suffer from post traumatic stress disorders. Hence it can be considered as a public health issue which needs to be tackled much more seriously by law makers, law abiding officers and health authorities.

Table 1:
Age & sex wise distribution of patients

Age (years)	Male(%)	Female(%)	Total(%)
15-24	33(19.6)	11(6.5)	44(26.1)
25-34	41(24.4)	16((9.5)	57(33.9)
35-44	13(7.7)	7(4.2)	20(11.9)
45-54	23(13.7)	4(2.4)	27(16.0)
>54	15(8.9)	5(3.0)	20(11.9)
Total	125(74.3)	43(25.7)	168(100)

Table 2:
Socio-demographic profile of patients

Occupation	Number of patients	Percentage
Agri-labourer	82	52.6
Non-agri-labourer	19	12.2
Self employed	13	8.3
Unemployed	17	10.9
Housewife	25	16

Table – 3: Rural-Urban distribution

Region	Number of patients	Percentage
Rural	133	79.1
Urban	35	20.9

Table – 4: Literacy status

Literecy status	No. of patients	Percentage
Illiterate	61	36.3
Literate	107	63.7
Primary	40	23.8
Secondry	27	16
PUC	15	8.9
Graduate	12	7.1
Post-graduate	13	7.7

Table – 5: Socio-economic status

Socio-economic status	No. of patients	Percentage
Upper middle	11	6.6
lower middle	46	27.3
Upper lower	98	58.3
Lower lower	13	7.7

Table – 6: Marital status

Marital status	No. of patients	Percentage
Married	90	53.6
unmarried	56	33.5
Widow/divorced	22	13.1

Table – 7: Type of family

Type of family	No. of patients	Percentage
Nuclear	107	63.7
Joint	39	23.2
Three generation	22	13.1

Table – 8: Distribution of patients according to the method used.

Method	Male(%)	Female(%)	Total(%)
Poison	119(70.8)	13(7.7)	132(78.6)
Burns	6(3.6)	30(17.9)	36(21.4)
Total	125(74.4)	43(25.6)	168(100)

Table – 9: Distribution of patients according to the kind of poison preferred.

Poison	Male(%)	Female(%)	Total(%)
Organophosphates	99(75)	10(7.6)	109(82.6)
Organochlorines	16(12)	2(1.5)	18(13.6)
Aluminium phosphide	4(3)	1(0.8)	5(3.8)
Total	119(90.2)	13(9.8)	132(100)

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