

# DELIBERATE SELF HARM: A LOCAL PERSPECTIVE

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## INTRODUCTION

Deliberate Self Harm has been defined as 'parasuicide' in the WHO/Euro Multi-Centre Study on Parasuicide, "an act with non-fatal outcome in which an individual deliberately initiates a non-habitual behavior, that without intervention from others will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognized dosage, and which is aimed at realizing changes that the person desires via the actual or expected physical consequences"<sup>1</sup>.

There are no official data on deliberate self harm and suicide from Pakistan. Data on suicide is not included in the national annual mortality statistics. As a result, national rates on suicide are neither known nor reported to the WHO<sup>2</sup>. In recent years a large number of patients have been admitted to medical wards with the act of DSH. But a small minority have the intention to take their lives, rest have other motives for their actions or suffer from a psychiatric disorder<sup>3</sup>. Distinction between suicide and DSH is not absolute. There is an important overlap. Some people don't have an intention to die but fail to revive from the effect of over dosage. Others who intend to die are revived<sup>2</sup>.

Modes of DSH have been found to vary in different regions of Pakistan. However self poisoning has been found to be the most common mode. Benzodiazepines, bleach/bathroom cleaner organophosphorus compounds, rat pills, lice powder, dettol and varnish have been used commonly.

Family disputes, interpersonal conflicts with opposite sex, marital problem, chronic illness, unemployment financial difficulties have been found to be common precipitating factors in various studies. Legal, social and economic discrimination, low socioeconomic status, chronically poor physical health and being unmarried are common risk factors for deliberate self harm.

Deliberate Self Harm is an important predictor of suicide in an individual. Many studies have been done on the subject at various centers Pakistan. The objec-

tive of our article was to search various studies and try to formulate a broader perspective on deliberate self harm in Pakistan.

## METHODOLOGY

Literature was searched for available data of deliberate self harm in Pakistan. Four electronic databases (PubMed, CINAHL Plus, MDCConsult, PakMediNet) were searched and 23 studies were reviewed. Study period stretched between 1996 and 2008. All the studies were of non- interventional descriptive variety. This included a total of 1100 patients with 481 males and 619 females.

All the studies done on deliberate self harm from 1996 till 2008 now were included. These studies were done on different methodology and parameters so homogenized analysis of all studies were not possible so those of 8 which found on similar methodology were analyzed in detailed. Studies done on Suicide alone were excluded while studies on both suicide and Parasuicide were also included. All the selected studies were studied and analyzed.

## RESULTS

According to a study conducted in a tertiary care hospital in Karachi 95% used self poisoning for DSH. Of which 47.3% used benzodiazepines for self poisoning<sup>4</sup>.

Another study conducted in same hospital, shows that medication overdose is 73%, followed by organophosphate insecticide ingestion 20%, physical method were used by 7%. Among medications benzodiazepine as a single drug account for 60% of the cases, but also featured in almost all cases of multiple drug overdose 5%. Tricyclic antidepressant and antipsychotic each account for 4% of cases. In this study we also find that female (59%) outnumbered males (41%) with the age group ranged from 12-76 years and (69%) were under the age of 30 years. Married women (32%) form the largest group followed by single women (25%), single men (24%) and married men (16%). The number of divorced and widowed individuals in both groups was negligible<sup>5</sup>.

Another study conducted in JPMC, Karachi in which 150 pts were included, results were found that 86(57%) were females and 64(43%) were males, mean age was 20 years +5 years. 71 patients (47%) were unmarried and 72 patients (48%) were married. 100 patients had a monthly income of 6000 or less<sup>6</sup>.

However, study done in Lahore found wheat pills to be the most commonly used poison (33%) followed

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by bleach/bathroom cleaner(25.7%). Benzodiazepines were used by 19% whereas other modes of DSH included copper sulfate, organophosphorus compounds, rat pills, lice powder, dettol and varnish. Two patients presented after hanging. This study also shows that 55% were male and 45% were females who presented in emergency after suicidal attempts<sup>7</sup>.

Another study conducted in same hospital benzodiazepines was found to be the most commonly used substance for DSH (28.57%). Second most common was wheat pills (21.42%) followed by copper sulfate poisoning (11.43%) and organophosphate Poisoning (5.72%)<sup>8</sup>.

According to a study done in emergency department in hospital of Lahore, majority of patients were young (62%) and preponderance was of females (60%) and more in married females. Lower social class is predominant (60%)<sup>9</sup>.

There is a very limited data on DSH from the other part of the country. One study done in Bolan Medical College, Quetta included only those patients which deliberately self harm themselves by organophosphate. All patients were females. Maximum number of patients was between 15 to 35 years age group. Highest prevalence (65.21%) was in females of 16-25 years and in lower socioeconomic group (91.30%)<sup>10</sup>.

Those who urban background mostly ingested household chemicals, whereas those with rural background used wheat pills.

## DISCUSSION

About a million people die by suicide each year worldwide<sup>11</sup>. Deliberate self harm is the important predictor of suicide.

The Indian subcontinent comprises eight countries (India, Pakistan, Bangladesh, Nepal, Sri Lanka, Afghanistan, Bhutan, and the Maldives) and a collective population of more than 1.3 billion people. 10% of the world's suicides (more than 100,000 people) take place in just three of these countries, viz. India, Sri Lanka, and Pakistan<sup>12</sup>.

Pakistan is an Islamic country where suicide and attempted suicide are considered criminal offenses. National suicide statistics are not compiled nor are suicide mortality statistics reported to the World Health Organization (WHO). There are strong religious sanctions against suicide; there are no clear principles against attempted suicide in Islam. Despite this, Pakistan, like many other Islamic countries, has punitive laws against attempted suicide. This has led to both suicide and attempted suicide being under studied, under diagnosed and underreported.

Where it is difficult to estimate incidence in general population we do get some important indications for example according to a study conducted in a tertiary care hospital in Karachi female (59%) outnumbered

males (41%) with the age group ranged from 12-76 years and (69%) were under the age of 30 years. Married women (32%) form the largest group followed by single women (25%), single men (24%) and married men (16%). The number of divorced and widowed individuals in both groups was negligible<sup>4</sup>.

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Higher incidence in youth and in particular females indicate the higher socioeconomic suppression suffered by them. Relation of Low socioeconomic status is also evident in above examples.

## Causes of DSH:

Causes of DSH can be divided into three categories i.e. precipitating factors, predisposing factors and psychiatric illnesses.

In comparison with general population people who deliberately harm themselves four times as many stressful life problems in the 6 months before the act.

A study done in a tertiary care hospital in Karachi found conflict with family, marital problem, chronic illness and unemployment as precipitating factors<sup>3</sup>. Interpersonal conflict with the opposite sex was the most common precipitating cause in another study conducted in a university hospital Karachi<sup>13</sup>.

The domestic situation was the main reason followed by financial difficulties in a study done in a Jinnah hospital Lahore<sup>8</sup>.

A study on DSH due to organophosphates in Quetta discovered that 43.47% females with history of disrupted family relationships<sup>9</sup>. In west quarrel with spouse, girl friend or boyfriend is particularly common. Other events include separation from or rejection by a sexual partner, the illness of a family member, recent personal physical illness and a court appearance<sup>2</sup>. These factors however have not been explored specifically in Pakistan.

Precipitating factors act on a background of long term problems and characteristics which may be called predisposing factors.

Few predisposing factors have been studied in Pakistan. In Pakistani society legal social and economic discrimination predisposes to psychological distress and subsequent suicidal behavior<sup>14</sup>. Risk factors for DSH in-

cluded young age (less than 35), being married and low socioeconomic status, reported in a study<sup>15</sup>. It indicates impulsiveness, unpredictability and an acute stress reaction. Preponderance of females show restriction, less privileges and gender discrimination is present in our community values. 8% graduate or less while 20% graduate or above. It was also high in patients of low socioeconomic group (19.30%)<sup>8</sup>. Predisposing factors found common in western society such as chronically poor physical health, early parental loss or a history of parental neglect or abuse have not been explored in detail in local studies. There is also evidence of poor skills in solving interpersonal problems and in planning for the future.

Studies done in Pakistan do not provide a deep insight into the presence and pattern of psychiatric problems in cases of DSH. A study conducted in a tertiary care hospital of Karachi found major depressive illnesses to be the common diagnosis<sup>16</sup>.

Another study, done in a tertiary care hospital Karachi, showed co morbid psychiatric disorder to be present in 76.4% patients<sup>3</sup>.

A study done in Bolan Medical Complex Quetta found that 78.2% patients had a history of depression while 30.43% were using antidepressants. And 4.34% had a history of previous self harm<sup>8</sup>. A few studies have found that depressed females were more prone to DSH<sup>17,18</sup>. Psychiatric disorders have been detected in about 90% of DSH patients seen in hospital. Although many DSH patients have affective symptoms few have psychiatric disorder<sup>2</sup>.

Depressive disorder is the most frequent diagnosis followed by alcohol and drug dependence. Among women anxiety disorder are in second place<sup>2</sup>. Personality disorder is more common in DSH patients as is alcohol dependence but little data is available on these factors in Pakistan.

Modes of deliberate self harm are numerous. 90% DSH reported in UK involve a substance use such as paracetamol, aspirin, psychotropic. 10% of self harm is self injury i.e., self laceration, commonly on forearm. Other forms are burning, jumping from heights, or in front of a vehicle, shooting, drowning, and hitting them<sup>2</sup>.

Modes of deliberate self harm appear largely to be related to the easy availability and access of agents. For example in big cities and more educated groups use of benzodiazepines and sleeping pills is more common while in rural settings wheat pills, bleach, bathroom cleaners etc are more common. According to a study conducted in a tertiary care hospital in Karachi 95% used self poisoning for DSH. Of which 47.3% used benzodiazepines for self poisoning<sup>3</sup>.

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## LIMITATIONS

As deliberate self harm is under searched area in Pakistan overall very limited of data is available. Those researches which we found were also done on different parameters and on very different methodology so even comparability of these was a difficult task. All these data is not at all representative of all part of country and majority of data is belonging to urban population although majority of population of our country is belonging to rural areas.

## CONCLUSION

Deliberate self harm is an important predictor of suicide. Suicide is existing on an alarming scale in local context with a pattern comparable to the changing trend in the developing world. Improving awareness about suicide and suicidal behavior including deliberate self harm is becoming the reason for comparatively more reporting of DSH now a day. There is a need for urgent measures in this direction including compilation of culturally specific scientific data at a national level. A multicentre study with homogenous parameter on different issues of deliberate self harm may be design to achieve the nationwide data which will be helping

in order to understand the problem of deliberate self harm.

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