

AN EXAMINATION OF FACTORS AFFECTING ON SELF INGESTION OF POISON

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INTRODUCTION

Self ingestion of poison is overdosing with a medicine or swallowing a poisonous substance (Dorland, 2012). Self ingestion of poison (SIP) is a very common way of committing suicide worldwide. It is the most common way to cause self harm and Sri Lanka is among the countries which have the highest rates of self poisoning, in the world (Ganeshwaran, Subramaniam, & Mahediwan, 1984). In 1991, Sri Lanka had the distinction of being the country with the highest suicide rate (47/100,000 population) in the world. The highest rate of self ingestion of poison as a means of self harm or attempted suicide has been seen in Thanamalwila, in the Monaragala district, in Uva province (Ministry of Health, 1997).

Jeyrathnam (1990) stated that the worldwide incidences of poisoning are as high as three million cases per year with 220000 deaths each year. Internationally, self poisoning with agricultural pesticides is the commonest cause of hospital death especially in rural districts. This number is higher than the number of admissions of all cardiac diseases and all tropical diseases (Ministry of Health, 1997). Even in the United Kingdom, deliberate self poisoning is one of the commonest reasons for hospital admissions and it represents a considerable economic burden. Gratz (2003) stated that self ingestion of poison is the most common form of non suicidal self injury behavior. Self ingestion of poison occurs in individuals of all age, regardless of gender, ethnicity or socio-economic status.

This self ingestion of poison is a huge health and social problem in Sri Lanka especially, in the Uva province which leads to increased health care cost. This wastage of health care expenditure can be reduced by preventing self ingestion of poison. Health care providers should take every possible measure to prevent unnecessary deaths and reduce the burden on health resources. In this context, an investigation of the factors affecting self ingestion of poison could be useful. Therefore, this study focuses on “examining the factors affecting attempted suicide by self ingestion of poison” using survivors of self poisoning admitted to three hospitals in Uva province namely General Hospital (GH), Monaragala, District Hospital (DH), Bandarawela and District Hospital (DH), Thanamalwila.

METHODOLOGY

This study employed a quantitative approach and descriptive design. This study was conducted in the natural settings of three hospitals at Monaragala, Bandarawela and Thanamalwila. The sample was purposive and consisted of 150 survivors of deliberate self poisoning, who were admitted to the above three hospitals during 1st of September in 2012 to 31st of January 2013. They were invited for voluntary participation and later informed consent was obtained. The patients transferred to other hospitals or intensive care units being blind, dumb and deaf, and patients who were illiterate were excluded from the sample.

Since there are no ethical reviews boards at Monaragala, Bandarawela and Thanamalwila hospitals, ethical approval was obtained from the Ethical Review Board at Lady Ridgway Hospital (LRH) and permission to gain access to the settings was obtained from the authorities of Monaragala, Bandarawela and Thanamalwila hospitals.

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The tool was developed by the research team and the final version of the English questionnaire was translated to Sinhala and Tamil languages. These translated versions were back translated to confirm the accuracy. The questionnaire consisted of 25 questions with multiple answers and aimed at gaining demographic data, motivation towards self poisoning, prior experiences of the sample to identify the childhood history, and recent past incidents for self poisoning. Questionnaires were distributed personally by the research team and were available for clarifications. The response rate was 100%.

RESULTS AND DISCUSSION

Demographic data: The sample consisted of 44% of males and 56% of females. A similar situation was identified in the study conducted by Eddleston et al. (1998). In contrast, Ariyanada (2009) revealed that more males have died in the Southern Province of Sri Lanka in comparison with females. Majority (52.6%) were married and they were the bread winners of the family.

Age group is an affecting factor on committing suicide. According to the data analysis, their age ranged from 10 to 51 years and 35.6% are teenagers and 37.6% are in their second decade.

A total of 73.2 were below the age of 30. According to these results younger people had attempted SIP than others. Eddleston *et al.* (1998) also found that many patients were very young (mean age 24.8 years).

The analysis of data according to religion showed that the majority of them (89.3%) were Sinhala Buddhist and 12% were Tamil Hindus, 2% were Catholic and 1.3% was Muslim Islam (Fig. 1). According to Islam religious law, self harm or Self ingestion of Poison is prohibited, so this religious law may be a cause for the low number of Muslims in this group. Religion seems to partially contribute to control of self ingestion of Poison.

Education level is another major factor that affects SIP. Life skills are based on educational level. The educational level was very low and 38.7% had primary education and another 46% had studied up to GCE ordinary level. They seem to be lacking in the necessary capability to make correct decisions during stressful situations.

Economic factors may be playing a considerable part on SIP. Majority of the sample were laborers or unemployed (figure -2). The monthly income of 32.6% was less than 5000 rupees and another 42.6% have an income between 6000- 10,000 rupees. It is a total of 75.2% of the sample. This income might not be sufficient in fulfilling their daily requirements thus leading to economic problems.

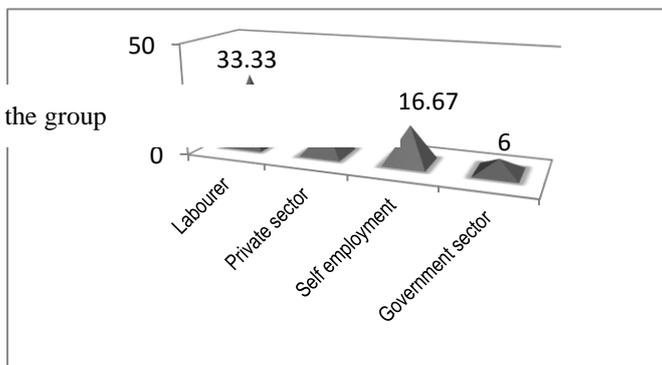
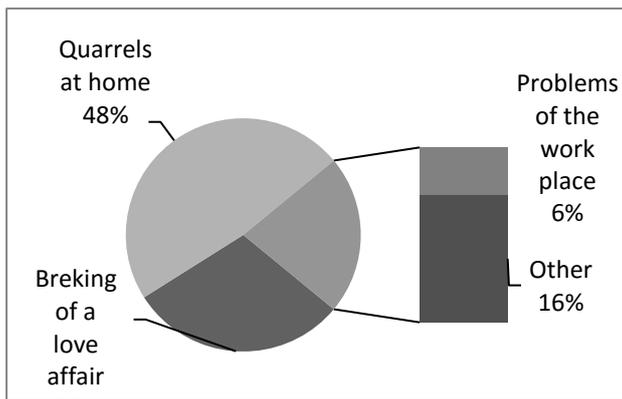


Figure 2 Employment of the group

In their study, Hettiarchchi and Kodituwakku (1992) also identified that financial problems were a common cause for attempting suicide by males than females. In addition, Monaragala, Bandarawela, and Thanamalwila are farming areas, people are used to storing poisonous liquids in their living places without following proper safety measures. Hence poisonous

substances are easily accessible by anyone.



Reasons for motivation for Self Poisoning : The data revealed that the majority of the sample had taken poison as a reaction to grief. Of the sample of 150, 131 attempted suicide by SIP without any prior planning.

Figure 3 Reasons for Self Poisoning

They had access to poison within easy reach immediately after they had faced a stressful situation. Therefore, the

availability of poison within easy access seems to be another leading factor affecting SIP in the Uva province. Similar findings have been identified by Hettiarachchi and Kodithuwakku (1992).

Thanamalwila and Monaragala areas are tropical areas that grow cannabis. Most of males are addicted to cannabis as it is easily available. In addition, most of them are smokers and alcohol dependents. These males are not capable of making correct decisions. According to participants, family arguments and quarrels are very common due to alcoholism. Data revealed that drug and alcohol abuse is major factor affecting SIP in Uva Province. Children of those families have bad experiences due to unpleasant family environment. Some of the subjects of the study sample were under the influence of alcohol at the time of attempting suicide. Moreover, it was identified that single parent families are more common in those areas which leads to an unpleasant family environment for children. So, parenting problems seem to be a common feature of this sample. Experiences during childhood may be a relative factor affecting self ingestion of poison.

Table-1: Experiences during Childhood

Experience	Percentage
Sexual abuse	2%
Neglected by parents	14.6%
Unpleasant family environment	48.6%
Single parent family	8%
Family alcohol abused	46%

Regarding childhood experiences, every subject had experiences of abuse as a child in various ways (table 1). Majority (48.6%) had an unpleasant family environment, another 46% had alcohol addicted families, parents neglected 14.6% of them, and 8% had a single parent. Out of the sample, 2% revealed sexual abuse. Silva and Senevirathna (2003) stated that conflicts between spouses affect self ingestion of poison. These findings of the present study also revealed that domestic violence is a significant factor affecting SIP. There were no diagnosed mentally ill patients included in the sample but research findings revealed that they have some mental stress. These tensions may be forcing them to take poison for self harm. Abesinghe (2009) discovered depression, alcohol dependence and stresses arising within families as the three leading causes of attempting suicide.

CONCLUSION AND RECOMMENDATIONS

The main aim of the study was to examine the factors affecting attempted suicide by self ingestion of poison. The sample was survivors who had ingested poisons and admitted to three hospitals at Monaragala, Bandarawela and Thanamalwila in Uva province. Data revealed that low literacy and low educational level, low economic status were some of the major reasons for attempting suicide. In addition, lack of skills in managing anger/ stress due to younger age, inability to cope with situations such as breakage of romantic relationships were also identified as other important factors. Moreover, data revealed that mal-adaptive

behavioral problems such as use of alcohol, domestic violence, as well as availability of poison within easy reach were other reasons.

Although many other studies (Silva & Senaviratna, 2003; Eddleston et al.1995) identified undiagnosed psychiatric illnesses of the sample, the evidence of this study did not support that. Probably this could be due to lack of screening for mental illnesses such as depression, delusional disorders, and alcohol dependence in the community. However, most of the sample had features suggestive of depression at the time of poisoning. As measures to reduce attempted suicide by SIP, this study would like to recommend the following.

Counseling programs for adolescents are necessary to improve life skills; handling stressful situation and decision making. The general public should be educated on taking precaution in storing poisons under lock and key, to improve parenting skills among parents, to reduce childhood hardship such as unpleasant family environment, negligence by parents and harmful use of alcohol within the family. Risk groups should be screened for psychiatric illnesses such as depression and alcohol dependent delusional disorders that lead to domestic violence.

Further studies are needed in other areas in the farming industry. As this is a social problem, it will be more useful if these studies focus on the issue from different perspectives in addition to the perspective of the person who attempts suicide by ingesting poison. By doing so, the study will become an awareness raising program.

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