

## Deliberate Self Harm Cases Presented to the Emergency Unit of Al-Hussein General Teaching Hospital in Karbala/ Iraq

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**الهدف:** لدراسة الخواص الاجتماعية لمرضى إيذاء النفس المتعمد القادمين لردهة الطوارئ في مستشفى الحسين التعليمي في محافظة كربلاء في العراق ودراسة طرق إيذاء النفس التي استخدموها وللتحقق من السبب. **طريقة الدراسة:** من تاريخ (الأول من أيار 2011) حتى (الأول من كانون الثاني 2012) جرى تحويل كل مرضى إيذاء النفس المتعمد القادمين إلى ردهة الطوارئ في مستشفى الحسين التعليمي إلى طبيب نفسي لغرض تقييم حالتهم. جمعنا 113 مريض. بعد تسجيل المتغيرات الاجتماعية والطريقة التي استخدمت لإيذاء النفس، قيم بعد ذلك المرضى من ناحية وجود المرض النفسي من عدمه وسئلوا عن الدافع الذي دفعهم لذلك السلوك. **النتائج:** إيذاء النفس المتعمد شائع لدى النساء أكثر من الرجال بحوالي أربعة أضعاف. معدل العمر للمرضى هو 24.68 سنة. إيذاء النفس المتعمد كان أكثر لدى من يعيشون في الحضر من هؤلاء الذين يعيشون في الريف بحوالي 3.3 ضعف. إيذاء النفس المتعمد كان أكثر لدى العزاب، ثم يأتي في المرتبة التالية المتزوجون، ثم يأتي أخيراً المطلقون. أكثر طريقتين مستخدمتين في إيذاء النفس كانتا تناول الأدوية، وتناول السموم. إيذاء النفس المتعمد لدى الرجال كان متماشياً أكثر مع وجود مرض نفسي مما هو عليه لدى الإناث، بينما إيذاء النفس المتعمد لدى النساء كان متماشياً أكثر مع المشاكل العائلية مما هو عليه لدى الذكور. **الاستنتاج:** إيذاء النفس المتعمد شائع أكثر لدى النساء الشابات. إن الطريقة الأكثر شيوعاً لدى كلا الجنسين هي تناول الأدوية أو السموم. لدى الذكور ميل أكثر لاستخدام طرق عنيفة عدا طريقة حرق الذات التي هي أكثر شيوعاً لدى الإناث. إيذاء النفس المتعمد لدى الذكور مرتبط بوجود مرض نفسي أكثر مما هو الحال عليه لدى الإناث. إيذاء النفس المتعمد لدى الإناث مرتبط أكثر بوجود مشاكل عائلية. هذا يتماشى مع دراسات سابقة أجريت في بلدنا.

**Aim:** To study the socio-demographic characteristics of deliberate self harm (DSH) of patients presented to the emergency unit of Al-Hussein Teaching Hospital in Karbala governorate in Iraq and to study the methods they used and inquiring about the cause.

**Subject and Method:** From the period (1<sup>st</sup> of May 2011) to (1<sup>st</sup> of January 2012) all patients with DSH who were presented to the emergency unit of Al-Hussein Teaching Hospital were referred to a psychiatrist to assess them. We collected 113 patients. Registering the socio-demographic variables and the methods of use, patients then were assessed for the presence of a mental illness. Mental illness diagnosis was based on the Diagnostic and Statistical Manual - IV (DSM-IV). Patients were also asked about their motives from the act.

**Results:** DSH was more common in females than in males in about four folds. The average age of patients was 24.68 years. DSH was more common in those with urban residency than those with rural residency in 3.3 folds. DSH was more common in the single, followed by the married, followed by the divorced. The two most common methods used were ingestion of drugs and ingestion of poisons.

DSH in males was found to be associated with mental illness more than in females, while DSH in females was found to be associated with family problems more than in males.

**Conclusion:** DSH is more common in young females. The most method used by both sexes was ingestion of drugs or poisons. Males got a tendency to use more violent methods except self-burning which is more common in females. DSH in males is more associated with a mental illness than in females. DSH in females is more associated with problems in the family. This goes well with previous studies that were done in our country.

## Introduction

The emergency unit is an important gateway to psychiatric patients. Since in our country there are no emergency psychiatric units, patients with mental illness frequently present to the emergency unit. One of the frequent presentations of psychiatric patients is deliberate self harm. Various terms like "attempted suicide," "deliberate self-poisoning," "deliberate self-injury," and "parasuicide" have been used interchangeably, to define subjects who present with self-harm<sup>(1)</sup>.

Although some of the authors have tried to separate these categories based on the suicidal intent at the time of the act, clinically it is not possible to do so in every case and hence, the most accepted term in recent times to describe such behavior is "Deliberate Self-Harm," which is defined as "self-poisoning or injury, irrespective of the purpose of the act"<sup>(2)</sup>.

We will use the term "deliberate self harm (DSH)" in this study.

The motives for DSH:

In a study in 13 European countries they had found similar reported motives in all the study sites<sup>(3)</sup>. The motives, according to the study are: to die, to get help, to show desperation to others, to get relief, to escape from unbearable anguish, or to change the behavior of others<sup>(3)</sup>.

The psychosocial milieu of the developing countries is different from that of the developed countries. Iraqi society is non-tolerant to suicide, views it as an act of being unfaithful in God and a shameful act, hence the epidemiological data about suicide and deliberate self-harm is not easily available, and this phenomenon can be regarded as hidden because of the "shame" that it brings to the person and to his or her family.

Suicide is a major risk factor for life as one million people worldwide die by suicide each year<sup>(4)</sup>. According to W.H.O report only a few number of suicide are from countries outside western world, especially from Muslim countries<sup>(5)</sup>.

In the Iraqi Mental Health Survey (IMHS) done in 2006 it was found that among those with *any mental disorder*, 68.39% expressed suicidal ideas<sup>(6)</sup>. The prevalence is significantly higher in females compared to males. This result is applicable to all diagnostic categories, except for substance use disorder in which men have higher frequency of suicidal ideas compared to women<sup>(6)</sup>.

Deliberate self harm has been found to be associated with immature defense mechanism in some studies<sup>(7,8)</sup>. Some studies in the UK had found a negative attitude of the emergency unit staff towards those patients<sup>(9)</sup>.

## Method:

This is a cross-sectional study. The psychiatric consultation unit in Al-Hussein Teaching Hospital had started to register all the cases of DSH presented to the emergency unit from the period of 1<sup>st</sup> of May 2011 till 1<sup>st</sup> of January 2012. The patients were interviewed after receiving the first aid and being stable medically. The patients were free to refuse the interview but all patients did agree on the interview. We missed some cases because they left the emergency so soon. We don't know how many cases we have missed since we didn't register them. In the interview socio-demographic information were taken and then assessing the mental status of patients to see whether they got a mental illness or not. Assessing the diagnoses was dependent on history taking and mental status examination by one of the researchers. The criteria of diagnosis used were the Diagnostic and Statistical Manual- IV (DSM-IV). We asked directly about the motive of the act. Statistical Package for Social Sciences (SPSS) the 17<sup>th</sup> edition was used to calculate the degree of freedom (df) and the 2-tailed significance for the variables.

## Results:

Our study revealed that females are slightly more than three-folds presented than males to

the emergency unit under the diagnosis of deliberate self-harm (as shown in table 1).

Table 1. the distribution of cases according to gender

Gender	Number of cases	Percentage in the sample
Females	90	69.6%
Males	23	20.4%
Total	113	100%

The most common method used was drug poisoning and poison ingestion (together stands for 71.7% of other methods). Other methods of deliberate self-harm were, in a descending manner: more than one type (9 cases = 8%), burn (8 cases = 7.1%), stabbing (7 cases = 6.2%), injection (3 cases = 2.7%), hanging (3 cases = 2.7%), and lastly electrical (2 cases = 1.8%) (as shown in table 2).

Table 2. The methods used for DSH according to sex by number and percentages.

	drugs	Burn	Poison	Electrical	Injection	Stabbing	Hanging	More than one type	total
Male	3 (13%)	1 (4.3%)	10 (43.5%)	0	0	3 (13%)	2 (8.7%)	4 (17.5%)	23 (100%)
Female	44 (48.9%)	7 (7.7%)	24 (26.9%)	2 (2.2%)	3 (3.3%)	4 (4.4%)	1 (1.1%)	5 (5.5%)	90 (100%)

$df = 7$

$Sig. (2-tailed) = 0.134$

The percentage of use of aggressive methods (hanging, and stabbing) was higher in males, except burns, which can be classified as an aggressive method, was more frequent in females. Twenty-seven cases of the total (23.89%) were found to have a psychiatric disorder but this was more common in males in about two-folds (as shown in table 3).

Table 3. The patients that received a psychiatric disorder diagnosis.

	Depression	Psychosis	Addiction	OCD	PTSD	Anxiety	Total
female	8	6	-	1	2	1	18 (20% from the total of females)
Male	2	1	3	1	2	-	9 (39.13% from the total of males)
Total	10	7	3	2	4	1	27 (23.89% from the total of both genders)

$df = 5$   $Sig. (2-tailed) = 0.328$

When asked about the motive of the act, many patients mentioned "familial problems" as the main cause. On inquiring about the family problems some patients mentioned some kinds of "marital disharmony" and/or "lodgment problems", while others tend not to clarify. This was more common in females (as shown in table 4):

Table 4. The number and percentage of cases who mentioned that "familial problems" were behind their act

Gender	The number and % of cases who mentioned that "familial problems" were behind the act
Females	36 (40%)
Males	6 (26%)

Regarding residency, those with urban residency (87 cases =77%) were 3.3 folds more common than those with rural residency (26 cases =23%). Regarding marital status, those at the highest risk were the single (74 cases =65.5%) followed by the married (37 cases = 32.7%), followed by the divorced (2 cases = 1.8%).

### Discussion:

It is well known that the use of firearm in suicide is associated with the most lethal results. In our sample there was no one who used firearms as a method. The explanation is that the patient who committed successful suicide is usually admitted directly to the forensic unit and not to the emergency unit if s/he arrives dead to the hospital. Also, all suicidal attempts patients, are required to bring a police paper to register the act in the police register, and some people leave the hospital as soon as possible before being forced to be registered in the police as this is regarded as a stigma to the family, hence we think that we lost some cases. This makes a problem in data collection. No follow up was done to the patients and whether they will die or not in the future since our study was a cross-sectional one.

In another study about 50 cases of DSH admitted to the emergency units in two general hospitals in Baghdad it was found that it is more common in females (34 female and 16 males) in a ratio of 2:1 and that the most used method in both sexes was self-poisoning (70% of the sample), with males preferring violent methods (self injury and jumping from a height but no case used self-burning in males), and females used self-burning (4 cases) <sup>(10)</sup>.

There are also those patients who attempted suicide by burn. DSH by burns was found to be common in females in another study in Iraq in Sulaimani University/ Kurdistan <sup>(11)</sup>.

The study of Sulaimani University was done in the Burns and Plastic surgery Center at the university and the sample was 462 cases collected over a period of 8 months of which 54 (27%) cases were cases of deliberate self-harm most of them (81%) were females <sup>(11)</sup>.

In a study on a big sample (912 patients) admitted to the burn units of four centers in Baghdad (Al-Karkh, Al-Wasity, Al-Kindy, Al-Emam Ali) in a period of 8 months in 2008, seventy-two patients (7.9%) were found to be cases of DSH the majority of them were females (61 (85%) females and 11 (15%) males) <sup>(12)</sup>.

Many other studies in Iraq and nearby countries came with the same result of higher incidence of DSH in females in a ratio of 2-3:1 with self-poisoning being always the preferred method by both genders, with a tendency of males to use violent methods (self cutting, gun shots, hanging, jumping from a height) and females has a tendency to self-burn <sup>(13, 14, 15, and 16)</sup>.

In our study we had identified 9 cases of deliberate self harm by burn, seven of whom were females (87%). The explanation of the high percentage of female patients who used this method may be the quotidian use of fire for cooking in the kitchen by the female and the availability of oil, benzene, and matchsticks to the eastern woman.

Self-burning is a violent method of suicide associated with high level of mortality, and it is more common in Asia and in the Middle East <sup>(17)</sup>. This is in contrast to the western world where self-immolation stands for only 1 % of the suicide cases and are more common in males and not in females <sup>(18, 19, 20, and 21)</sup>.

One of the studies explained the high percentage of young females in samples of DSH by burn Asian countries by the conservative parental values and traditions such as arranged marriage which may

contrast with the wishes and expectations of young women themselves<sup>(22)</sup>. Arranged marriage was found the leading motive for DLH by burn in a study done in Suleimania-Iraq (40%) of the sample<sup>(23)</sup>. A study on suicidal behavior among secondary school students in Kut City- Iraq found that among the factors associated with this behavior is corporal punishment<sup>(24)</sup>. In our study we didn't ask about corporal violence nor verbal violence and that is a limitation in our study. Our study used only a general label of "family problems" to include a wide variety of possibilities. That general label was used to encourage the patients to reveal what is in their mind without the pressure on them to be specific.

The explanation that our sample contains mostly young people and women can be explained by the fact the deliberate self harm is more common in those with immature defense mechanisms<sup>(7, 8)</sup>. Other studies also found that most cases are young like that done in Al-Suleimania<sup>(23)</sup>. Also, the female role in our culture is confined to the home mostly and she feels not encouraged to express her feelings thus she might express her feelings by the immature way, that is, deliberate self harm, so that her family gave her more attention and listen to her requires more seriously. In our society nowadays, our houses are overcrowded because the married sons stay in the paternal house and they are usually dependent on the parents. It is familiar that we face inter-personal conflicts inside the same house.

The explanation of the higher occurrence of DSH in urban areas in about 3.3 folds than rural areas can be that those who live in the rural areas are more supported by the family and the extended family since in the small villages relationships are more strong between neighbors and thus they support each other psychologically while in the urban area, the relationships between the relatives are not that strong and the modern type of life, with the use of internet and mobile phone, makes people contact less in real life and this modernism might affect the marital relationships negatively. Another explanation

is that those that live in the rural areas find the Hussein Teaching Hospital far from them so they either postpone the consultation or consult a local doctor or a nurse, or do not consult at all.

DSH was higher in the single persons and this can be explained that our culture support more the married couple and the single is usually isolated and can be not psychologically supported enough.

Our study has several limitations. First, the emergency unit in a Al-Hussein General Hospital is the only emergency unit in Kerbala governorate, hence the patient turnover is high and the medical staff work in stressful situation, a thing that limited the concentration on cases of DSH that was not critical to patient's life. Second, the period of our study lasted for 8 months only, hence we cannot calculate the incidence nor the prevalence rates. Third, we didn't concentrate on classifying the motives of patients and we didn't study this important aspect of the act.

### **Conclusion:**

Deliberate self harm is not a rare presentation in the emergency units in Al-Hussein General Teaching Hospital. The females are about 4 folds presented in this diagnosis than males. The most used method was drug or poison ingestion. Mental illness (including drug abuse) is more found in the male sample in about 2 folds than in the females' sample. In the females sample "problems with the family" is one of the most common causes of the act. Men use more violent methods than females except for self-burn which is more common in females.

### **Recommendations:**

Suicide and suicidal attempts are under-recognized in our society and need more collaborative work between the emergency units, the forensic units, the police reports, and the psychiatric units. We need to work in multidisciplinary teams. Follow up of cases is needed. The asking for a "police paper" makes a stigma to the family and it might be better if a civilian worker takes the notes

from the family and presented it to the police rather than asking the family to directly contact the police. Self-burns have high mortality rate and a collaborative work between psychiatry and plastic surgery may aid in the care of those patients. As some studies showed that the medical staff treats these cases with a negative attitude it is found necessary to encourage some collaborative work with the psychiatrists about the issue, a thing that might lessens the stigma of the patient and improve the attitude of the medical staff to those patients. We recommend for further studies to increase the duration for one year or more so that we can estimate the incidence of this phenomenon and to compare it with studies done on the same subject worldwide.

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