

Causes, Attempts and Methods of Suicide in Baghdad: An Autopsy Study

Mohammad A. Jabor, Suhaila Saleem Kareem
Department of Pathology and Forensic Medicine, College of Medicine,
University of Al-Mustansiriyah.
E-Mail: moh.jabar2016@yahoo.com

Abstract:

Suicide is defined as intentional taking of one's own life. Until the end of the twentieth century approximately, suicide was considered a criminal act; legal terminology is used, in the Latin phrase *felo-de-se*, which means "a crime against the self".

Descriptive study of 100 fatal recorded suicidal cases brought for postmortem examination at the Medico-legal institute of Baghdad within four years period from first of September 2011 to first of September 2015 (males 49 and females 51 cases). The study excludes the firearm deaths. Pre-tested questionnaire was used to obtain data by direct interview with the visitors of the victim, family members, witnesses and information available on police records.

Death on spot was recorded in 47% of the cases while 41% of victims died within 24 hours of incidence whereas 12% victims survived for 7 days. About 56% of Suicidal victims were discovered dead not hospitalized. Low socioeconomic conditions were most frequent (45%) cause for committing suicide followed by psychosocial causes (43%) and chronic diseases (12%). Poisoning (53%) and hanging (45%) were the two exclusive methods employed for committing suicide. Most of the victims (males 87.76% and females 78.43%) have had a successful attempt to commit suicide in their first attempt while history of previous suicidal attempts was available in 17% of victims.

The aim of this study is to identify the intensity and frequency of suicide in relation to the Medico-legal aspect of the incidence such as method, duration of survival, causes of committing suicide and previous attempts to commit suicide.

From the results of the study we can conclude that most of the victims incorporated such suicidal attempts and methods were successful in accomplishing suicide in the first attempt (males 87.76% and females 78.43%) and the commonest cause of committing suicide is mostly their low socioeconomic condition and psychosocial reasons.

Key words: *Suicide, Medico-legal, Poisoning, Hanging, Socioeconomic.*

أسباب ومحاولات وطرق الإنتحار في بغداد - دراسة طبية عدلية

محمد عبد المحسن و سهيلة سالم
فرع الأمراض والطب العدلي، كلية الطب، الجامعة المستنصرية

الخلاصة:

يعرف الإنتحار بأنه قرار يأخذه شخص من أجل إنهاء حياته أو هو التصرف المتعمد من قبل شخص ما لإنهاء حياته، وقد كان هذا التصرف يعتبر جريمة حتى نهاية القرن العشرين. أما التعريف القانوني للإنتحار فهو الجريمة بحق النفس. تم إجراء دراسة وصفية شملت 100 حالة وفاة إنتحارية مؤكدة أو يشتبه بكونها ذات طبيعة إنتحارية أجري لها التشريح الأصولي في معهد الطب العدلي في بغداد للفترة من الأول من أيلول 2011 ولغاية الأول من أيلول 2015. إستنتجت الدراسة

الوفيات الناتجة عن الأعييرة النارية. تم أخذ المعلومات بخصوص الضحايا من مقابلات مباشرة مع عائلة الضحية وممن ترددوا عليه بعد محاولة الإنتحار في حالة كون المنتحر لم يمت مباشرة فضلاً عن الذين شهدوا واقعة الإنتحار والمعلومات المتوافرة في سجلات الشرطة.

أظهرت الدراسة أن الوفيات الآنية كانت الأكثر شيوعاً وسجلت في 47% من الحالات وقد توفي 41% منهم خلال 24 ساعة الأولى التي تلت الوفاة بينما 12% من الوفيات حصلت خلال الأسبوع الأول. ما يقارب 56% من الضحايا قد تم إكتشاف وفياتهم دون وجود أي مساعدة طبية. كانت العوامل الإقتصادية والمجتمعية المتدنية هي الأكثر شيوعاً من بين مسببات الإنتحار 45% أتت بعدها العوامل النفسية 43% تلتها الأمراض المزمنة 12%. التسمم (53%) والشنق (45%) كانت الوسيلتان الأكثر شيوعاً بين المنتحرين للإجهاز على الحياة. غالبية الضحايا قد نجحوا في الإنتحار من المحاولة الأولى (الذكور 87.76% والإناث 78.43%) أما محاولات الإنتحار السابقة فقد شوهدت عند 17% من الضحايا.

هدفت الدراسة إلى تعيين مدى إنتشار وكثافة حالات الإنتحار في بغداد والتي تؤدي الى الوفاة مع الأخذ بنظر الأعتبار الطرق المستخدمة، فترة الحياة بعد محاولة الإنتحار، الأسباب المؤدية إلى الإنتحار وعدد المحاولات السابقة للمنتحر والتي لم ينجح فيها بالإجهاز على حياته.

إستنتجت الدراسة ان غالبية ضحايا الإنتحار ينجحون في الإجهاز على حياتهم من محاولتهم الأولى (الذكور 87.76% والإناث 78.43%) وأن العوامل الإقتصادية والمجتمعية المتدنية كانت السبب الرئيس للإنتحار تلتها الأسباب النفسية.

كلمات مفتاحية: الإنتحار، طبي-عدي، التسمم، الشنق، إقتصادي-مجتمعي.

Introduction:

Suicide is defined as intentional taking of one's own life. Until the end of the twentieth century approximately, suicide was considered a criminal act; legal terminology is used, in the Latin phrase *felo-de-se*, which means "a crime against the self" [1]. If aging and disease are eliminated and the world is made much safer (and/or surgical repair is vastly improved) so as to reduce the danger of death by accident, the major causes of death will be suicide and homicide. It is believed that no matter how advanced the technology, people will always have the means of killing other people (homicide) and of killing themselves (suicide). Suicide is one of the most important public health problems world-wide [2]. Females of all races are more likely to report having had suicidal ideation and are almost twice as likely to attempt suicide. However, males of all races are almost five

times as likely as females to die by suicide. The suicide rate in young people increased dramatically over the last few decades. In 1997, suicide was the third leading cause of death among 15-24 years old [3].

There are several possible reasons for committing suicide including poverty, unemployment, illiteracy and broken homes. In many developing countries "suicide" remains a taboo subject and a stigmata because of political, religious and social sensitivities, therefore prevention cannot truly start until this taboo is directly faced and struggling to change the ideas and the beliefs about suicide and try to solve the problems instead of blaming the victims [4]. There is a lack of research on suicide from developing countries and without good robust information, prevention programs cannot be developed [5].

No systemic study has been done to explore the sociological as well as medico-

legal aspects of suicide in Iraq. This study may reveal the better understanding of the suicidal behavior, understand the issues related to suicide and eventually provide guidance on suicide prevention.

Materials and Methods:

This is a descriptive study of 100 fatal recorded suicidal cases brought for postmortem examination at the Medico-legal Institute of Baghdad from first of September 2011 to first September 2015. Pre-tested questionnaire with variables like time of occurrence, method used, duration of survival after the attempt, causes of committing suicide and previous attempts to commit suicide were included. Data were obtained by direct interview with the visitors of the victim, family members, witnesses and information available on police records. Finally, the computation of data was done

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with the help of Microsoft Excel and SPSS software in tabular forms and observations were recorded, analyzed and discussed.

Result and Discussion:

The causes of suicide have been categorized in three major groups (1) Socioeconomic (2) Psychological and (3) Physical. Duration of Survival after committing suicide was seen in (Table-1). From the observations made on the major causes of suicide, it appears that the most frequent causes for committing suicide belonged to the socioeconomic (45%) group followed by psychosocial causes (43%) and chronic diseases (12%), the commonest age group was (20-29) for both males and females with 58 cases followed by age group (11-19) with 18 cases and age group (30-39) with 9 cases (Table-2).

Table-1: Duration of survival after suicidal attempt.

| Duration of Survival | Male | | Female | | Total | |
|--------------------------------|------|-------|--------|-------|-------|-----|
| | No | % | No | % | No | % |
| Death on spot | 22 | 44.90 | 24 | 47.06 | 46 | 46 |
| Survival up to 24 hours | 20 | 40.81 | 21 | 41.18 | 41 | 41 |
| Survival up to a week | 6 | 12.24 | 5 | 9.8 | 11 | 11 |
| More than a week | 1 | 2.04 | 1 | 1.96 | 2 | 2 |
| Total | 49 | 100 | 51 | 100 | 100 | 100 |

Table-2: Age groups of suicides for both genders.

| Age (years) | Males | Females | Total |
|--------------|-------|---------|-------|
| 0-10 | 1 | 0 | 1 |
| 11-19 | 6 | 12 | 18 |
| 20-29 | 30 | 28 | 58 |
| 30-39 | 4 | 5 | 9 |
| 40-49 | 5 | 1 | 6 |
| 50-59 | 2 | 2 | 4 |
| ≥60 | 1 | 3 | 4 |
| Total | 49 | 51 | 100 |

It was observed that socio-economic group of causes were the major cause in maximum percent of the victims (45 %) for

both males and females and males victims were slightly more than females. Chronic disease was another group of causes for

committing suicide in both genders, and female victims 7 (13.73%) were more than male victims 5(10.2%), male victims were 51 and females 49 with male to female ratio 1:1 (Table-3). Poisoning was the commonest method of suicide for both genders (27 for

males and 26 for females) and followed by hanging (21 for males and 24 for females) as seen in table-4. Most of the victims loss their lives with the first attempt of suicide (87.76% for males and 78.43% for females) as seen in table-5.

Table-3: Causes of death in both genders.

| Causes of suicide | Male | Female | Total |
|-------------------|------|--------|-------|
| Socioeconomic | 24 | 21 | 45 |
| Psychological | 20 | 23 | 43 |
| Chronic diseases | 5 | 7 | 12 |
| Total | 49 | 51 | 100 |

Table-4: Method used for committing suicide.

| Method Used for committing Suicide | Male | | Female | | Total |
|------------------------------------|------|-------|--------|-------|---------|
| | No. | % | No. | % | No. (%) |
| Hanging | 21 | 42.86 | 24 | 47.06 | 45 |
| Poisoning | 27 | 55.10 | 26 | 50.98 | 53 |
| Burning | 1 | 2.04 | 0 | 0.00 | 1 |
| Drowning | 0 | 0 | 1 | 1.96 | 1 |
| Total | 49 | 100 | 51 | 100 | 100 |

Table-5: Previous attempts to commit suicide.

| Previous Attempts | Male | | Female | | Total |
|------------------------|------|-------|--------|-------|---------|
| | No. | % | No. | % | No. (%) |
| once | 5 | 10.2 | 9 | 17.65 | 14 |
| Twice | 1 | 2.04 | 1 | 1.96 | 2 |
| More than twice | 0 | 0 | 1 | 1.96 | 1 |
| First Attempt | 43 | 87.76 | 40 | 78.43 | 83 |
| Total | 49 | 100 | 51 | 100 | 100 |

Discussion:

The present study (Table-4: Methods used for committing suicide) revealed that poisoning (53%) and hanging (45%) were the two exclusive methods applied for committing suicide and hanging was slightly more used by females (47%) while poisoning by males (55.1%). In similar studies, Nandi *et al*, studying suicide in Pakistan, stated that poisoning and hanging were the commonest methods ^[6]. According to the study of Jacob *et al*, and Solomon *et*

al, the commonest methods used were poisoning, hanging, drowning and burning^[7,8].

World Health Organization gave the best evidence for estimating the global burden of suicide deaths from pesticides ingestion from China and South East Asia. In 2001, there were an estimated 517,000 suicides in the developing countries. In these regions and research evidences suggests that pesticide ingestion accounted for over 60% of these suicides ^[9]. Smith and Rafael reported that the methods of suicide

employed generally reflect the easy availability of methods in the community^[10].

In the present study, the causes of suicide have been categorized into three major groups (socioeconomic, psychological and chronic diseases or physical), out of which the most frequent causes responsible for committing suicide belonged to socioeconomic group (45%) followed by psychological (43%) and physical causes (12%). The socioeconomic status of Iraqi people in general is awfully poor with a huge unemployment and general upset, mainly among the youth. Furthermore, during period of study the political riots, strikes, terrorism and outbreak of the phenomenon of the Islamic State in Iraq and Sham (ISIS) with huge number of internal immigrants and incapability to carry on business in such circumstances led to economic crisis among the inhabitants. This economic status led to social predicaments, thus the socioeconomic group of causes of committing suicide were highest. In similar study, Sharma reported a high rate of suicides amongst the unemployed (56.1%) followed by the lower middle income group (37.7%)^[11]. It is clear from the report of Brown with modern research on the interrelationship of economic disasters, that unemployment and suicidal behavior continues to validate with strong positive relationship^[12]. Stack and Hass reported several macro level findings of an inverse relationship between income levels and suicide, Stack's interpretation of this is that money reduces stress, makes life more worth and hence reduces the propensity toward suicide^[13].

In the present study (Table-5: Previous attempts in committing suicide), it is observed that most of the victims (83%) were committing suicide in their first attempt. However, previous history of suicidal attempts of once, twice or even five times was available in 17% of victims. In series of follow up study, Schneidmans

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found risk of subsequent successful suicide in 8% of attempters^[14] and this rate was 2% in study of Baecheler's^[15]. According to the current study, the presence of previous attempts is an alarming sign for the family member to become alert enough to have close watch on these individuals, especially when one could have anticipated such attempt and should try to prevent. It is also obvious that for an individual who is determined to end his/her life, he/she can always find a way out. The study shows that vulnerability to repetition can be indicated by the presence of psychiatric morbidity, poorer coping style to stress, the nature of suicidal attempt and degree of communication of intent.

Conclusion:

On the basis of observations made during the present study of 100 fatal suicidal victims, it may be concluded that poor socioeconomic condition and suicidal tendencies are accomplished. Majority victims have used hanging followed by consumption of poison as methods of choice for committing suicide. Socioeconomic, psychological and chronic diseases were noted as the frequent causes in descending orders for fatal suicidal behavior of which most of them had the first successful attempt to commit suicide, of whom nearly half of victims dying on the spot and more than half of suicidal victims were either discovered dead or could not be hospitalized as they died soon after the incidence.

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