



Incidence of Suicide Attempt Behaviors between 2015-2018 among Children and Adolescents in Al Najaf Al Ashraf Province

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ABSTRACT

Background: Suicide is a grave public health issue that impacts people of all ages, including children and teenagers, and represents a significant global public health concern. This study concentrates on recent advancements in our comprehension of trends and risk factors related to children and adolescent suicidal behavior. While suicide is among the leading causes of mortality in many Western countries, it was, until recently, an exceedingly rare phenomenon in Eastern countries.

Objectives: The study aims to explore on the trends in suicide attempt behaviors among children and adolescents. it was, until recently, an exceedingly rare phenomenon in Eastern countries.

Methodology: The research objectives were achieved through a descriptive-analytic study. Incidence in suicide attempt behaviors between 2015 and 2018 among children and adolescents in Al Najaf Al Ashraf were identified. The study was conducted in the Al-Najaf province from December 2nd, 2022, to April 16th, 2023. A non-probability purposive sample of 156 participants was included in the study. Data were collected from at Hakeem teaching hospital and from police center documentation in hospital between December 16th, 2022, and January 20th, 2023. The study instrument consisted of two parts: Part I included a socio-demographic characteristics sheet with three items, gender, age, and residence. Part II focused on the method of suicide attempt (poisoning, jumping from a high place, shooting, cutting of the artery, strangulation, hanging, and burning).

Results: The highest percentage of the study sample (46%) within age group (18 years) or younger, (52%) were female. Notably, suicide attempts were highest in 2017 compared to the frequencies in 2015. A significant relationship was observed between suicide attempt behaviors and gender.

Conclusion & Recommendations: Poisoning was the most common method, while the percentage of attempts involving cutting of the artery was lower. Limit access to the means of suicide, such as pesticides, drugs, and weapons. Focus on treating individuals with mental disorders, especially those struggling with depression, schizophrenia, and alcoholism. In our community, poverty, deprivation, and unemployment should be addressed as political priorities, with decision-makers actively working to strengthen the community economically and ensure equal employment opportunities.

Keywords: Incidence, Attempted Suicide, Adolescent.

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INTRODUCTION

This corresponds to a suicide death every 40 seconds based on an age-standardized suicide rate of 11.5 per 100,000 individuals. Additionally, the rate has climbed by 60% globally over the previous 50 years; with an 8.64% fatality rate, it ranks second among causes of death for teenagers and young adults ⁽¹⁾. Suicide, according to the World Health Organization (WHO), is a multifaceted phenomenon caused by a combination of genetic, biological, sociological, psychological, and environmental factors. Suicidal behaviors include thoughts, attempts, and actual suicide ⁽¹²⁾. Suicide is the third-leading cause of death among all children and adolescents worldwide, including those aged 15 to 29, making it a significant public health issue for all age groups ⁽⁵⁾, general population and 25% of patients outside of psychiatric departments have had suicidal thoughts or attempted suicide; psychiatric disorders and major life stressors are considered major contributors to suicidal ideation ⁽⁸⁾. Suicide can also occur in people with emotional reactions to stress who do not meet the diagnostic criteria for formal psychiatric disorders ⁽³⁾. When anxiety or depression is present, the mental disorders linked to attempted suicide are quite prevalent in the community as well as in psychiatric and non-psychiatric medical settings, such as primary care outpatient clinics and inpatient facilities. Although anxiety, personality, eating, and trauma-related illnesses, as well as organic mental disorders, can contribute to suicide, the majority of suicides are linked to psychiatric disease, with depression, substance use disorders, and psychosis being the most significant risk factors ⁽³⁾. Iraq's high suicide rate is a current health issue made worse by the fact that the nation has experienced war and widespread destruction. Even though Islam condemns suicide,

the suicide rate has increased. For instance, the suicide rate increased from 1.09 to 3 occurrences per 100,000 people between 2015 and 2018 ⁽²⁾. Previous research has documented that some demographic variables are risk factors for attempted suicide, including age, gender and residence. In addition, several studies of adults have examined the parallel effects of demographic variables on both ideation and attempts ⁽⁷⁾.

AIMS OF THE STUDY

The study aims were accomplished via the use of cross sectional study to identify the incidence in suicide attempts behaviors between 2015 - 2018 among adolescent at Al-Najaf Al-Ashraf.

METHODOLOGY

This research was conducted in the AL - Najaf province for the period of (December 2nd, 2022, to April 16th, 2023). The selection of non-probability (purposive) sample has been obtaining required and suitable data. The sample size is (156) was included in the present study. The data are collection, from recommendation records in police center. The data collection process has been performed from December 16th, 2022, to January 20th, 2023. Study instrument consist two parts: **Part I:** the first section was socio demographic characteristics sheet consisting of 3 items, which included gender and age, residents. **Part II:** method of attempt (poising, jumping from high place, shooting, cutting of artery, struck, hanging and burning). The data of the study were analyzed through the use of statistical package of social sciences (SPSS) version 24.0, through descriptive and inferential statistical analyses.

RESULTS

Table (1): Demographic Data of the study population (N=156)

Demographic Data		Freq.	%
Age (Years)	<= 18	72	46
	19 - 25	63	40
	26 Up	21	13
	Mean ± SD	20.7±4.5	
Gender	Males	75	48
	Females	81	52
Residence	Urban	151	97
	Rural	5	3
Total		156	100

Table (2): The methods used for the suicide behavior attempts

Suicide Methods	Attempt Suicide Year				Total / n=156
	2015 / n=40	2016 / n=39	2017 / n=43	2018 / n=34	
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
Poisoning	15 (38)	11 (28)	13 (30)	10 (29)	49 (31)
Jumping from high place	4 (10)	1 (3)	2 (5)	4 (12)	11 (7)
Shooting	8 (20)	5 (13)	8 (19)	4 (12)	25 (16)
Burn	2 (5)	6 (15)	2 (5)	1 (3)	11 (7)
Struck	3 (8)	1 (3)	1 (2)	0	5 (3)
Hanging	5 (12)	4 (10)	6 (14)	10 (29)	25 (16)
Cutting of artery	3 (7)	11 (28)	11 (26)	5 (15)	30 (19)

This table illustrates the trends in attempted suicides over the past years (2015-2018). Poisoning is more prevalent (31%), while the cutting of arteries accounts for 19%. It describes the distribution of suicidal attempts during the period 2015-2018, which varied each year. It is evident that in 2017, suicide attempts were the highest compared to the frequency in 2015.

Table (3): The relationship between suicide methods and demographic characteristics

Demographic Data	Chi-square (df)	P-value	Sig.
Age (Years)	15.307 (12)	0.225	NS
Gender	79.609 (6)	0.0001	HS
Residence	12.476 (6)	0.05	S

H.S: High significant, S: Significant, N.S.: Not significant.

Table 3: This table illustrates the relationship between suicide methods and demographic characteristics. It indicates that there is no significant relationship between suicide methods and age, with a p-value greater than 0.05. However, it reveals a highly significant relationship between suicide attempt behaviors and gender, with a p-value of 0.001. Additionally, the study results show a significant relationship between suicide attempt behaviors and residence ($\chi^2=12.476 (6)$, p-value=0.05).

DISCUSSION:

Suicidal behavior is complex and is a fatal reaction to a potentially preventable public health catastrophe. Some risk factors vary with age, gender and ethnic group and may even change over time (7). Results revealed most of population were age more than or equal 18 years old category. This is similar to the results (4), entitled "Epidemiology of youth suicide and suicidal behavior", who found that the Suicide Rates by Age for Youths Aged 10-19 years old. The present study reveals that the majority of gender were females (52%). This result is in accordance with the study of (11), entitled suicidal ideation and behaviors among high school students—youth risk behavior survey, United States, 2019. who found the majority of the study sample were females, Consistent with previous research, during 2019, females had more suicidal ideation, suicide plans, and suicide attempts, including attempts requiring medical treatment, than males. Regarding the residency, the percentage of population in the urban area is higher than in rural (97%). "This result may be due to the increase in population density in the urban area, a previous review demonstrated that geographical location plays a limited rate in the large variance of suicide attempts prevalence. This result is in coincided with the study of (9, 10, and 11). (4), who found that the study sample was "living in urban area. This table shows attempt suicide years trends in the past years (2015-2018). Poisoning is more common (31%). and the cutting of arteries are (19%), describes the distribution of suicidal attempts during the period 2015-2018 which varied through according to years. It is clearly notified that during year 2017 the suicide attempts were highest compared to suicide frequency during 2015. This finding was consistent with (10), under the "Suicidal Thoughts and Behaviors Among Adults aged equal or more than 18 Years—in United States, 2015–2019. This study show relation between suicidal methods and demographic characteristics. Also shows that there is no significant relationship between Suicidality methods with age, at

p-value more than 0.05. Shows that there is high significant relationship suicide attempts behaviors with gender. Also, the result of the study reveals that there is a significant relationship between suicide attempt behaviors with residence This result agree with the study of (6), who found that a significant association between suicide intent and gender was found, where 'Serious Suicide Attempts' (SSA) were rated significantly more frequently in males than females ($p < 0.001$).

CONCLUSIONS:

The study concluded the majority of suicidal attempts occurring in ages less than or equal 18 years are more common. Most of the suicidal attempts were female. The majority of the suicidal attempts in urban residential areas. The majority of the suicidal attempting apply by poisoning method while were percentage less of suicidal attempting apply by cutting of artery method. We clearly notified that during the year 2017 the suicide attempts were highest comparing to suicide frequency during 2015 respectively. There are high significant relationship suicide attempts behaviors with gender.

RECOMMENDATIONS:

Limit access to the means of suicide, such as pesticides, drugs, and weapons. Focus on treating individuals with mental disorders and substance abuse. In our community, poverty, deprivation, and unemployment should be addressed as political priorities, with decision-makers actively working to strengthen the community economically and ensure equal employment opportunities. Additionally, efforts to prevent suicide attempts must counteract feelings of frustration, hopelessness, and unbearable pain in all their toxic forms. This involves providing alternative means for individuals to change or escape intolerable circumstances. Pay special attention to the impact of media on children and adolescents in relation to suicide.

Author Contributions

Each of the authors made contributions to the study by engaging in data collection, analysis, and discussion of the findings. The authors engaged in a discourse regarding the outcomes and made contributions to the ultimate document.

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