

RETROSPECTIVE STUDY OF SUICIDE DURING THE PERIOD 2017- 2021

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ABSTRACT

Background: Suicide among Egyptians is a subject of great concern which requires thorough study to formulate a prevention strategy. Suicide has a significant impact on economic growth and development. **Aim of the study:** To assess the medico legal aspects of suicidal cases through analysis of socio-demographical data, risk factors and common methods used. **Methods:** A retrospective review was conducted on data obtained from 3720 suicide injured patients who were recorded to Fayoum, Cairo and Alexandria Forensic Medical Authority in between January 2017 and December 2021. **Results:** in this study 32.2% of study group aged between 21 and 30 years old, followed by 25.5% aged between 31 and 40 years old. 67.2% were males versus 32.8% were females. For marital status 45.8% were married. 83.4 % had a low level versus 16.6 had a high level. Percentage of suicidal cases in 2017 were 14.5% increased to 19.6% in 2018, then to 21.3% in 2019, then to 22.3% in 2020 and 2021. 46.8% of cases were from Cairo, 12.5% were from Fayoum, and 40.8% were from Alexandria. The most common cause of suicide was Aluminum phosphide 25.4%, followed by Hanging 19.4% the fall from high was 15.5%. There was a statistical significant difference with p-value <0.001 in suicidal methods between different governorates with higher percentage of firearm (91.3%), cut wrist (100%), stab abdomen (100%), and Zinc phosphide toxicity (88.9%) in Cairo, higher percentage of aluminum phosphide toxicity (44.9%) was noticed in Fayoum, and the high prevalence was for drug abuse toxicity (55.7%), traffic accident (52.6%), and aluminum phosphide toxicity (50.4%) for Alexandria. **Conclusion:** Suicide is regarded as an issue, hence preventing it should be given top priority. Suicidal methods are readily available and challenging to control. As a result, risk factor-based suicide prevention strategies may be more effective than techniques that restrict access. **Keywords:** suicide injuries, suicide forensic aspect, Egypt.

INTRODUCTION

Suicide is the deliberate taking of one's own life. (Nock et al. 2008). A suicide attempt is an attempt to end the life. A nonfatal suicide attempt can lead to many physical injuries, ongoing medical issues, brain damage and permanent infirmity (Levi et al. 2008). infirmity can be either temporary or permanent; transient infirmity is thought to occur when an injury has not yet progressed. Within six months, it will have improved to the highest degree feasible. Permanent infirmity, on the other hand, is a bodily impairment condition that cannot be reversed. (Hafez et al. 2020).

Suicidal attempts do not always end in death. Suicide attempts, which are up to 20 times more common than successful suicide, are not included in the statistics. we are in 2023, and this was a prediction for 2020 but now you need to put the actual suicidal attempts in 2020 with another reference as this is not the original

reference. Suicides are often not recorded since they are considered unlawful acts in various countries. In countries with reliable vital statistics, suicide is frequently mistaken for an accident or another cause of death.

Suicide registration is a difficult process that involves numerous authorities, frequently including police enforcement. Suicide fatalities go uncounted in countries with unreliable death records (Gvion and Apter, 2012). It is frequently done out of despair, the root of which is frequently attributed to a number of risk that increase the likelihood of suicide attempts, including psychiatric disorders, a mental disorder like depression, borderline personality disorder, stress factors like financial hardships with interpersonal relationships, borderline personality disorder, drug and alcohol misuse, socioeconomic issues, low educational attainment, and unemployment (Maher, et al., 2011). the diagnosis, severity of

mental illness and the degree of cognitive impairment affected by The criminal and civil responsibilities in mentally disordered persons (Eldabe, et al., 2018).

The costs of suicide include the loss of life as well as the mental, physical, and emotional strain placed on friends, family, and loved ones. Other expenditures relate to public resources since people who attempt suicide frequently need assistance from hospitals and psychiatric facilities. Suicide is a last resort action that almost certainly arises from the combinations of multiple diverse causes. (Hawton and Heering, 2009) The greatest suicide rates in the world are found in Eastern Europe and East Asia. Latin America has the lowest suicide rate, about 60% of suicides worldwide occur in Asian countries (Chen et al., 2012). Suicide methods differ between nations. They can be divided into two main categories: physical means (such as hanging, burning, drowning, jumping from a height, getting hurt on trains or in cars, getting stabbed or cut, getting hurt by a gun, suffocating, or electrocuting), and chemical techniques (poisoning by drugs, insecticides, and toxic gases). 'Determined death seekers' or people who attempt suicide are known for using whatever method at their disposal to end their life (Gvion and Apter, 2012). One way that Arab nations in the Middle East North Africa (MENA) region's emergency departments (ED) are presented with patients is through suicidal attempts influences (Suad et al., 2022) In Arab hospitals, the annual rate of suicidal attempts in the Arab hospitals ranged from 1.9/100,000 to 127/100,000 annually (Maher, et al., 2011). Suicide attempt patients are not typically brought to medical institutions due to the stigma surrounding psychiatric disorders, a lack of knowledge about psychiatric diseases, and a lack of mental health resources (Steen and Meyer, 2004). The prevalence of suicide in a place is influenced by a number of variables, including the method's accessibility and availability, the person's socioeconomic status, and the prevalent cultural

and religious influences (Suad, et al., 2022). If a person confesses to considering suicide, withdrawal from friends, family, and community, careless, or engaging in riskier activities without apparent thought, dramatic shifts in mood, Pay attention and consider their worries, Don't be reluctant to inquire about encourage them to contact a qualified specialist for assistance right away. Don't just let them be. Tell them you care about them and that they are not alone. Assist them in finding continued assistance (Ahmedani, et al., 2017).

PARTICIPANTS & METHOD

Data from 3720 patients who were registered with Fayoum, Cairo and Alexandria Forensic Medical Authority in between January 2017 and December 2021 were subjected to a retrospective review. The following details were carefully examined in every suicide death record: information on the victim's age, sex, place of residence, and social class. The manner of suicide and the incident's date

Statistical Analysis

Data was gathered, coded to make data manipulation easier, double-entered into Microsoft Access, and analyzed by using SPSS software version 22 running on Windows 7. (SPSS Inc., Chicago, IL, USA). Straightforward descriptive analysis using percentages and numbers for qualitative data, arithmetic means for measuring central tendency, and standard deviations for quantifying dispersion for parametric quantitative data. Chi square analysis is used to contrast two or more qualitative groupings. P-values 0.05 and higher were regarded as statistically significant.

RESULTS

Table (1) illustrated that 32.2% of study group aged between 21 and 30 years, followed by 25.5% aged between 31 and 40 years old. 67.2% were males versus 32.8% were females. For marital status 45.8% were married versus 54.2% were unmarried. Regards social class 83.4% had a low level versus 16.6 had a high level. There were 2040 (54.9%) from rural area and 1680 (45.1%) from urban area.

Table (1): Description of demographic characteristics among study group.

Variables	Number	
	(n=3720)	
	No.	%
Age groups		
10-20 years	852	22.9%
21-30 years	1196	32.2%
31-40 years	948	25.5%
41-50 years	496	13.3%
51-60 years	172	4.6%
>60 years	56	1.5%
Sex		
Male	2500	67.2%
Female	1220	32.8%
Marital status		
Married	1704	45.8%
Single	2016	54.2%
Social class		
Low	3116	83.4%
High	616	16.6%
Rural area or Urban area		
Rural area	2040	54.9%
Urban area	1680	45.1%

In table (2):4.3% of study group show violence before suicide and 6.9% were drug abusers. Percentage of suicidal cases in 2017 were 14.5% increased to 19.6% in 2018, then to 21.3% in 2019, then to 22.3% in 2020 and 2021. 46.8% of cases were from Cairo, 12.5% were from Fayoum, and 40.8% were from Alexandria. The most common methods of suicide were Aluminum phosphide 25.4%, followed by Hanging 19.4% then fall from high 15.5%. The lowest suicidal method was 0.2% for cut wrist and stab in abdomen as shown in the table (2) and fig (1).

Table (2): Description of suicidal characteristics among study group.

Variables	Number	
	(n=3720)	
Violence before suicide		
No	3560	95.7%
Yes	160	4.3%
Drug abuse		
No	3464	93.1%
Yes	256	6.9%
Number of cases by years		
2017	540	14.5%
2018	728	19.6%
2019	796	21.3%
2020	828	22.3%
2021	828	22.3%
Place of suicide		
Cairo	1740	46.8%
Fayoum	464	12.5%
Alexandria	1516	40.8%
Methods of suicide		
Aluminum phosphide toxicity	944	25.4%
Hanging	720	19.4%
Fall from high	576	15.5%
Drug abuse toxicity	460	12.4%
Drowning	348	9.4%
Traffic accident	228	6.1%
Firearm	184	4.9%
Burning	184	4.9%
Zinc phosphide toxicity	36	1%
Carbamate toxicity	24	0.6%
Cut wrist	8	0.2%
Stab in abdomen	8	0.2%

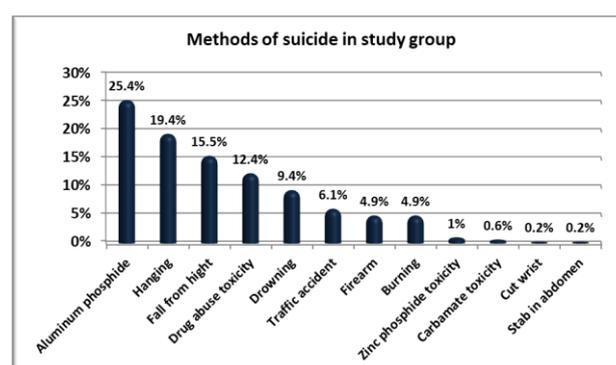


Figure (1): Suicidal methods in study group

In this study there was a statistical significant difference with p-value <0.001 in suicidal causes between males and females with higher percentage of Zinc phosphide toxicity (77.8%) and aluminum phosphide toxicity (70.3%) were noticed among females versus 22.2%, and 29.7% respectively in males

as shown in the table (3). The higher percentage of cut wrist (100%), stab in abdomen (100%), Carbamate toxicity (100%) drowning (97.7%), and firearm (91.3%) were found in males as shown in the table (3).

Table (3): Comparisons of suicidal methods in different sex

Causes of suicide	Males (N=2500)		Females (N=1220)		P-value
	No.	%	No.	%	
Fall from height	416	72.2%	160	27.8%	
Drowning	340	97.7%	8	2.3%	
Firearm	168	91.3%	16	8.7%	
Hanging	600	83.3%	120	16.7%	
Drug abuse toxicity	340	73.9%	120	26.1%	<0.001*
Carbamate toxicity	24	100%	0	0%	
Traffic accident	172	75.4%	56	24.6%	
Cut wrist	8	100%	0	0%	
Zinc phosphide toxicity	8	22.2%	28	77.8%	
Stab in abdomen	8	100%	0	0%	
Aluminum phosphide	280	29.7%	166	70.3%	
Burning	136	73.9%	192	26.1%	

Table 4 illustrated that there was a statistically significant difference with p-value <0.002 in suicidal causes between marital status with higher percentage of cut wrist (100%), Drug abuse toxicity (69.6%) and Carbamate toxicity (66.7%), were noticed among married cases. The higher percentage of drowning (64.4%), stab abdomen (100%) and Aluminum phosphide (67.8%) were found in single cases.

Table (4): Comparisons of suicidal methods in different marital status.

Suicidal methods	Married (N=1704)		Single (N=2016)		P-value
	No.	%	No.	%	
Fall from high	280	48.6%	296	51.4%	
Drowning	124	35.6%	224	64.4%	
Firearm	96	52.2%	88	47.8%	
Hanging	352	48.9%	368	51.1%	
Drug abuse toxicity	320	69.6%	140	30.4%	
Carbamate toxicity	64	66.7%	32	33.3%	
Traffic accident	416	45.6%	496	54.4%	<0.001*
Cut wrist	8	100%	0	0%	
Zinc phosphide toxicity	8	22.2%	112	77.8%	
Stab in abdomen	0	0%	8	100%	
Aluminum phosphide	304	32.2%	640	67.8%	
Burning	92	50%	92	50%	

The table (5) showed that there was p-value for the statistically significant

difference<0.002 in suicidal causes between social classes with higher percentage of Carbamate toxicity , cut wrist, stab in abdomen (100%), and aluminum phosphide toxicity (91.9%) were noticed among low social class. The victims with low income had higher rates in all methods of suicide.

Table (5): Comparisons of suicidal methods in different social classes.

Suicidal methods	Low (N=3104)		High (N=616)		P-value
	No.	%	No.	%	
Fall from high	444	77.1%	132	22.9%	
Drowning	312	89.7%	36	10.3%	
Firearm	136	73.9%	48	26.1%	
Hanging	576	80%	144	20%	
Drug abuse toxicity	356	77.4%	104	22.6%	0.002*
Carbamate toxicity	24	100%	0	0%	
Traffic accident	192	84.2%	361	5.8%	
Cut wrist	8	100%	0	0%	
Zinc phosphide toxicity	28	77.8%	8	22.2%	
Stab in abdomen	8	100%	0	0%	
Aluminum phosphide	868	91.9%	76	8.1%	
Burning	152	82.6%	32	17.4%	

The present study showed that there was a statistically significant difference with p-value <0.001 in suicidal causes between different governorates with higher percentage of firearm (91.3%), cut wrist, stab abdomen (100%), and Zinc phosphide toxicity (88.9%) in Cairo. And higher percentage of aluminum phosphide toxicity (44.9%) were noticed in Fayoum, and for Alexandria the high prevalence was for drug abuse toxicity (55.7%), traffic accident (52.6%), and aluminum phosphide toxicity (50.4%) as shown in the table (6).

There was a p-value for the statistically significant difference<0.001 in suicidal causes between different years with higher percentage of drowning (36.8%) in 2017, and in 2018 hanging (41.7%), carbamate toxicity (50%), cut wrist (100%), and Zinc phosphide toxicity (44.4%). In 2019 the high prevalence was for Aluminum phosphide (41.9%). 2020 show higher percentage of fall from high (29.9%), firearm (34.8%), drug abuse toxicity (37.4%). In 2021 traffic accident reach to the highest percentage (59.6%), 100% of stab in abdomen and 50% of burning cases occurred as shown in the table (7).

Table (6): Comparisons of suicidal methods in different governorates

Suicidal methods	Cairo (N=1740)		Fayoum (N=464)		Alexandria (N=1516)		P-value
	No.	%	No.	%	No.	%	
Fall from high	332	57.6%	0	0%	244	42.4%	
Drowning	300	86.2%	12	3.4%	36	10.3%	
Firearm	168	91.3%	4	2.2%	12	6.5%	
Hanging	424	58.9%	0	0%	296	41.1%	
Drug abuse toxicity	180	39.1%	24	5.2%	256	55.7%	<0.001*
Carbamate toxicity	16	66.7%	0	0%	8	33.3%	
Traffic accident	108	47.4%	0	0%	120	52.6%	
Cut wrist	8	100%	0	0%	0	0%	
Zinc phosphide toxicity	32	88.9%	0	0%	4	11.1%	
Aluminum phosphide	44	4.7%	424	44.9%	476	50.4%	
Burning	120	65.2%	0	0%	64	34.8%	

Table (7): Comparisons of suicidal methods in different years.

Suicidal methods	Years					P-value
	2017 (n=540)	2018 (n=728)	2019 (n=828)	2020 (n=828)	2021 (n=796)	
Fall from high	72(12.5%)	88(15.3%)	128(22.2%)	172(29.9%)	16(20.1%)	<0.001*
Drowning	128(36.8%)	20(5.7%)	68(19.5%)	52(14.9%)	80(23%)	
Firearm	44(23.9%)	24(13%)	16(8.7%)	64(34.8%)	36(19.6%)	
Hanging	132(18.3%)	300(41.7%)	96(13.3%)	120(16.7%)	72(10%)	
Drug abuse toxicity	60(13%)	20(4.3%)	88(19.1%)	172(37.4%)	120(26.1%)	
Carbamate toxicity	4(16.7%)	12(50%)	4(16.7%)	0(0%)	4(16.7%)	
Traffic accident	28(12.3%)	16(7%)	8(3.5%)	40(17.5%)	136(59.6%)	
Cut wrist	0(0%)	2(100%)	0(0%)	0(0%)	0(0%)	
Stab in abdomen	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	
Aluminum phosphide	60(6.4%)	180(19.1%)	396(41.9%)	172(18.6%)	132(14%)	
Burning	8(4.3%)	44(23.9%)	16(8.7%)	24(13%)	23(50%)	

In table 8: Correlation between the highest four methods suicide and other data the study showed that there was a statistically significant difference with p-value <0.001 in suicidal causes between age groups with higher

percentage of drug abuse, and phosphide toxicity were noticed among younger age younger than 40 years old, however fall from height and hanging occurred in older age >40 yrs.

As regard s sex, females represented with higher percentage in aluminum phosphide toxicity, but males were higher percentage in fall from high and hanging with p-value <0.001.

Among married persons who commit suicide, drug abusers had the higher percent the higher significant percentage was drug abuse. In low socioeconomic level the common causes are aluminum phosphide toxicity and hanging. Higher percentage of cases with violence and drug abuse were in drug abuse toxicity cause of suicide with p-value <0.001.

In 2018 the most common cause of suicide was hanging. In 2019 was aluminum phosphide Toxicity was higher, and in 2020 fall from height and drug abuse toxicity represent the highest percentage.

Common suicidal method in Cairo was hanging, in Alexandria was drug abuse toxicity, and in Fayoum was aluminum phosphide toxicity with p-value <0.001 as shown in table (8).

Table (8): Comparisons of the most common suicidal methods.

Age groups			
≤40years	64(44.4%)	85(47.2%)	66(57.4%)
	167(70.8%)		
>40years	80(55.6%)	95(52.8%)	49(42.6%)
	69(29.2%)	<0.001*	
Sex			
Male	104(72.2%)	150(83.3%)	85(73.9%)
	70(29.7%)		
Female	40(27.8%)	30(16.7%)	30(16.7%)
	166(70.3%)	<0.001*	
Marital status			
Married	70(48.6%)	88(48.9%)	80(69.6%)
	76(32.2%)		
Single	74(51.4%)	92(51.1%)	35(30.4%)
	160(67.8%)	<0.001*	
Social class			
Low	111(77.1%)	44(80%)	89(77.4%)
	217(91.9%)		
High	33(22.9%)	36(20%)	26(22.6%)
	19(8.1%)	<0.001*	
Violence before suicide			
No	144(100%)	174(96.7%)	98(85.2%)
	229(97%)		
Yes	0(0%)	6(3.3%)	17(14.8%)
	7(3%)	<0.001*	
Drug abuse			
No	142(98.6%)	177(98.3%)	69(60%)
	233(98.7%)		
Yes	2(1.4%)	3(1.7%)	46(40%)
	3(1.7%)	<0.001*	
Number of cases by years			
2017	18(12.5%)	33(18.3%)	15(13%)
	15(6.4%)		
2018	22(15.3%)	75(41.7%)	5(4.3%)
	45(19.1%)		
2019	32(22.2%)	24(13.3%)	22(19.1%)
	99(41.9%)	<0.001*	
2020	43(29.9%)	30(16.7%)	43(37.4%)
	44(18.6%)		
2021	29(20.1%)	18(10%)	30(26.1%)
	33(14%)		
Place of suicide			
Cairo	83(57.6%)	106(58.9%)	45(39.1%)
	11(4.7%)		
Fayoum	0(0%)	0(0%)	6(5.2%)
	106(44.9%)	<0.001*	
Alexandria			
	61(42.4%)	74(41.1%)	64(55.7%)
	119(50.4%)		

DISCUSSION

Suicide is a serious public health issue that need immediate attention. (Hobson, Leech, 2014) In our study 32.2% of study group aged between 21 and 30 years, followed by 25.5% aged between 31 and 40 years old. This agreed with Sherief. et al (2014) who reported that the cases of suicide had a mean age of 30.73 ± 10.43 years Also This is consistent with a study that linked specific characteristics to the number of suicide fatalities that occurred in India in 2014 (Badiye, et al., 2014) Suicide statistics shows that young people between the ages of 18 and 45 commit suicide more frequently. As young Indians become more progressive, their traditionalist households become less supportive of their choices regarding things like financial independence, marriage age, premarital sex, rehabilitation, and caring for the elderly. This is because the conflict of values within families is a significant factor in young people's lives. Due to the importance of caring for the old in Indian tradition, the proportion of suicides among people over 60 is, nonetheless, relatively lower. They are respected to some extent because of their age, and their requirements are frequently acknowledged (Badiye, et al., 2014). High prevalence (49.3%) of suicide was identified in both sexes in the age category of 21 to 30 years in the Medicolegal Study on Suicide in Alexandria. Urban areas had a greater prevalence (94.1%).) ((Sherief., et al, 2014) (Mai Seif,2017).

In the present study, 32.8% of the study's suicide death records were women, compared to 67.2% of men. In comparison to female suicides, there are more men who commit suicide. In terms of marital status, 45.8% were married while 54.2% were single. In the Medical-Legal Study of Suicide in Alexandria, men (75.6%) and singles (49.3%) made up the bulk of the participants. Sherif, et al., (2014) male to female sex ratio was 3.1:1, with 75.6% (n=155) being male and 24.4% (n=50) female. (Khangar and Kamalja. ,2017) reported In India, suicide rates were greater in 2020 among adults aged 25 to 34, the suicide rate has continuously been lowered among younger groups than among middle-aged and older persons. Suicide rates among 15- to 24-year-old teenagers and young adults were 14.24 in

2020. Men committed suicide 3.88 times more often than women in 2020. There are 130 suicides every day on average (Ahmedani, et al., 2017) Communication is one important component. Saying that women are more likely to communicate their issues than males are oversimplifies the situation. Nonetheless, it is true that for many years, communities have favoured men who present as "strong" and refuse to acknowledge their difficulties. Boys are frequently told that "boys don't weep" as children, which prevents them from expressing their pain (Al Madni, et al., 2010). Men may also be less prone to acknowledge feelings of vulnerability, whether to themselves, or friends. They also can be more reticent than women to see a doctor (Lasrado, et al., 2016)

Between the first of September 2019 and the end of February 2020, a previous cross-sectional study was carried out at the poison control center of the hospitals affiliated with Ain Shams University in Egypt 580 patients in total, ranging in age from 6 to over 45, participated in the study. The majority of those who attempted suicides were females (77.24%), between the ages of 19 and 44 (62.59%), living alone (69.31%), and students (51.55%). (Suad, et al., 2022)

Regards social class 83.4 % had a low level versus 16.6% had a high level. there was a statistically significant difference with p-value <0.002 in suicidal causes between social classes with higher percentage of Carbamate toxicity, cut wrist, stab in abdomen (100%), and aluminum phosphide toxicity (91.9%) noticed among low social class. The higher percentage of firearm (26.1%) and fall from high (22.9%) were found in high social classes. This can be explained by the fact that when there is an economic downturn and there is an increase in unemployment, for instance, there tends to be a corresponding increase in suicide as people have to worry more about finances or looking for work can exacerbate mental health difficulties for everyone. to a study, the suicide rate rises by 0.79 percent for every 1% increase in unemployment (Ahmedani, et al., 2017). In India in 2017 were reported by low- and middle-income groups (less than 100,000) and (100,000–500,000) (Wasserman, 2021). This is in line with Sun, et al. (2017) a sample of seniors and older were selected from the Korea Medical Care Utilization panel that was compiled in 2012, multivariate logistic regressions were used to

examine the relationship between perceived social class and suicidal thoughts while controlling for socio-demographic factors. 8.8% of respondents said they had at least one suicidal thought in the year prior and believed they belonged to lower social class groups (Mean = 3.62 out of 10 score). Perceived social class was linked to experience of suicidal ideation, according to multivariate logistic regression. Gender, physical activity levels, and the amount of chronic illnesses a person has were all significant factors linked to suicidal ideation (Issa, et al., 2016). The most common methods of suicide was Aluminum phosphide 25.4%, followed by Hanging 19.4% the fall from high 15.5%. the lowest case was 0.2% for cut wrist and stab in abdomen. These results were concomitant with other studies In several other nations, such as Germany, Japan, and India, hanging is the second most popular form of suicide after drunkenness. (Badiye, et al., 2014) (Köhler J, et al., 2021) (Horita, Moriguchi, 2022) Although suicide rates vary by state in the US, hanging is reportedly the second most popular way to commit suicide (Ahmedani, et al., 2017). Behind all firearms combined two separate investigations in Dammam city, a city in the same region of the Middle East, confirmed that, after hanging, self-burning, using a firearm, and falling from a height were the next most popular ways to commit. (Issa, et al., 2016) (Al Madni, et al., 2010). this agree with Abdel-Hameed, et al., 2017 one of the main causes of mortality in Assuit in Egypt was falling accidents.

In our study the p-value indicated a statistically significant difference. <0.001 in suicidal methods between males and females with higher percentage of Zinc phosphide toxicity (77.8%) and aluminum phosphide toxicity (70.3%) were noticed among females versus 22.2%, and 29.7% respectively in males. The higher percentage of cut wrist (100%), stab in abdomen (100%), Carbamate toxicity (100%) drowning (97.7%), and firearm (91.3%) were found in males. This is in agree with a study revealed that men were more likely to hang themselves or asphyxiate whereas female individuals tended to choose overdosing on pharmaceutical medicines or exsanguination. Ladies also employed a broader variety of suicide techniques. (Orsolini, et al., 2020)

In current study there was a statistical significant difference with p-value <0.001 in

suicidal causes between different governorates with higher percentage of firearm (91.3%), cut wrist, stab abdomen (100%), and Zinc phosphide toxicity (88.9%) in Cairo. And higher percentage of aluminum phosphide toxicity (44.9%) were noticed in Fayoum, and the high prevalence was for drug abuse toxicity (55.7%), traffic accident (52.6%), and aluminum phosphide toxicity (50.4%) in Alexandria. This disagree with The prospective study in Alexandria, Male suicides most frequently involved hanging (45.16%), whereas female suicides most frequently involved falling from a height (36%). Suicidal deaths predominately happened indoors (65.9%) and in the spring (36.1%). 38% of cases indicated psychological issues, and 20% of them included a history of prior suicide attempts. (Sherief. et al, 2014). (Argo, et al, 2014).

CONCLUSION AND RECOMMENDATION

Designing suicide prevention techniques that are culturally relevant requires an understanding of suicide within the context of each individual nation. In addition, further research is required to comprehend suicide in people.

Ethical Clearance: Faculty of Medicine Fayoum University Research Ethical Committee Permission Number.R364

Conflict of Interest: Nil

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المخلص العربي

دراسة مرجعية للانتحار خلال الفترة من 2017 إلى 2021
 هبه رحيم اعادة مصطفى الجلاد
 قسم الطب الشرعي والسموم كلية الطب البشري جامعة الفيوم

المقدمة: حالات الانتحار لها تأثير كبير على النمو الاقتصادي والتنمية. **هدف الدراسة:** تقييم الجوانب القانونية الطبية لحالات الانتحار من خلال تحليل البيانات وعوامل الخطر والأساليب الشائعة المستخدمة. **الطريقة:** تم إجراء مراجعة بأثر رجعي على البيانات المأخوذة من 3720 حالة انتحار تم تسجيلهم في هيئة الطب الشرعي بالفيوم والقاهرة والإسكندرية في الفترة ما بين يناير 2017 وديسمبر 2021. **النتائج:** في هذه الدراسة 32.2% من مجموعة الدراسة الذين تتراوح أعمارهم بين 21 و 30 عامًا، تليها 25.5% بين 31 و 40 سنة، 67.2% ذكور مقابل 32.8% إناث. بالنسبة للحالة الاجتماعية، 45.8% كانوا متزوجين. 83.4% لديهم مستوى منخفض مقابل 16.6 مستوى مرتفع. بلغت نسبة حالات الانتحار في عام 2017 14.5% وارتفعت إلى 19.6% في 2018 ثم إلى 21.3% في 2019 ثم إلى 22.3% في 2020 و 2021. 46.8% من الحالات كانت من القاهرة و 12.5% من الفيوم و 40.8% كانوا من الإسكندرية. وكانت الوسيلة المستخدمة للانتحار هو فوسفيد الألومنيوم 25.4% ، يليه الشنق بنسبة 19.4% ، والسقوط من ارتفاع 15.5%. كانت هناك فروق في طرق الانتحار بين المحافظات المختلفة مع ارتفاع نسبة السلاح الناري (91.3%) ، ، طعنة البطن (100%) ، وسمية فوسفيد الزنك (88.9%) في القاهرة ،. لوحظت نسبة سمية فوسفيد الألومنيوم (44.9%) في محافظة الفيوم ، وكان الانتشار العالي لسمية تعاطي المخدرات (55.7%) ، حوادث المرور (52.6%) ، سمية فوسفيد الألومنيوم (50.4%) بالإسكندرية. الخلاصة: يعتبر الانتحار مشكلة وطرق الانتحار متاحة بسهولة ويصعب السيطرة عليها ، وبالتالي يجب إعطاء الأولوية القصوى لمنع ذلك بالوقاية من اسباب المؤدية للانتحار..