



ORIGINALES

Risk of self-inflicted violence: a presage of tragedy, an opportunity for prevention

Risco para violência autoprovocada: prenuncio de tragédia, oportunidade de prevenção

Riesgo para la violencia autoprovocada: prenuncio de tragedia, oportunidad de prevención

Tamires Alexandre Félix¹

Eliany Nazaré Oliveira²

Marcos Venícios de Oliveira Lopes²

Maria Socorro de Araújo Dias²

Jose Reginaldo Feijão Parente³

Roberta Magda Martins Moreira⁴

¹Nurse. Master in Family Health at the UFC. Substitute Professor of the Nursing course of the Vale do Acaraú State University - UVA, Sobral-CE / Brazil. tamiresafelix@gmail.com

² Nurse. PhD in Nursing from the Federal University of Ceará - UFC. Professor of the Nursing course of the Vale do Acaraú State University - UVA, Sobral-CE / Brazil.

³ Psychologist. PhD in Education. Professor at the Vale do Acaraú State University - UVA, Sobral-CE / Brazil.

⁴ Nursing Academic by Vale do Acaraú State University (UVA). Fellow of the Cearense Foundation for Scientific and Technological Development Support (FUNCAP), Sobral-CE / Brazil.

<http://dx.doi.org/10.6018/eglobal.18.1.304491>

Received: 17/09/2017

Accepted: 10/11/2017

ABSTRACT:

In Brazil, more than 30 self-inflicted deaths per day were recorded in 2012, with an estimated ten to 20 times the number of suicide attempts, which requires intersectoral strategies to prevent new cases and follow risk groups. The objective of this study was to analyze the association of factors considered at risk with the suicide attempt in people attended at a referral hospital in the northern region of Ceará using the population-based case-control method. 153 cases and 153 controls admitted between August 2013 and August 2015 matched by sex, age and origin were included. The data collection was done through an own form and the information processed by SPSS. In the sample of cases young adults prevailed without significant difference by sex. Exogenous Intoxication and motivations for love and family conflict were highlighted as a method. Leisure proved protective. The risk factors were 'Attempted suicide prior', 'be carrying some mental disorder', 'family history of self-injurious behavior' and 'drug abuse'. Many of the controls reported suicidal ideation at some point in their lives. Screening is recommended from the most striking predictors and awareness-raising for notification.

Keywords: Risk; suicide attempted; epidemiology; suicide.

RESUMO:

No Brasil, foram registrados mais de 30 óbitos autoprovocados por dia em 2012 sendo a estimativa para as Tentativas de Suicídio cerca de 10 a 20 vezes maior o que exige estratégias intersetoriais para prevenir novos casos e acompanhar os grupos de risco. O objetivo desta pesquisa foi analisar a associação de fatores considerados de risco com a tentativa de suicídio em pessoas atendidas em um hospital de referência da região norte do Ceará a partir do método caso-controle de base populacional. Foram incluídos 153 casos e 153 controles admitidos entre agosto de 2013 e agosto de 2015 pareados por sexo, idade e procedência. A coleta de dados foi realizada por um formulário próprio e as informações processadas pelo SPSS. Na amostra de casos prevaleceram os adultos jovens sem diferença significativa por sexo. Destacou-se como método a Intoxicação Exógena e as motivações por conflitos amorosos e familiares. O lazer demonstrou-se protetor. Os fatores de risco foram 'Tentativa de suicídio anterior', 'ser portador de algum transtorno mental', 'histórico familiar de comportamento autolesivo' e 'uso abusivo de drogas'. Muitos dos controles referiram ideação suicida em algum momento da vida. Recomenda-se o rastreamento a partir dos preditores mais impactantes e a sensibilização para notificação.

Palavras-Chave: Risco; Tentativa de Suicídio; Epidemiologia; Suicídio.

RESUMEN:

En Brasil, se registraron más de 30 óbitos auto-provocados por día en 2012 siendo la estimativa para los Intentos de Suicidio entre 10 y 20 veces mayor, lo que exige estrategias intersectoriales para prevenir nuevos casos y hacer un seguimiento de los grupos de riesgo. El objetivo de esta investigación fue analizar la asociación de factores considerados de riesgo con el intento de suicidio en personas atendidas en un hospital de referencia de la región norte de Ceará a partir del método caso-control de base poblacional. Fueron incluidos 153 casos y 153 controles admitidos entre agosto de 2013 y agosto de 2015 emparejados por sexo, edad y procedencia. La recolección de los datos fue realizada mediante un formulario propio y las informaciones procesadas por el SPSS. En la muestra de casos prevalecieron los adultos jóvenes sin diferencia significativa por sexo. Se destacó como método la Intoxicación Exógena y las motivaciones por conflictos amorosos y familiares. El ocio demostró ser protector. Los factores de riesgo fueron 'intento de suicidio anterior', 'ser portador de algún trastorno mental', 'histórico familiar de comportamiento auto-lesivo' y 'abuso de drogas'. Muchos de los controles refirieron ideas suicidas en algún momento de su vida. Se recomienda el seguimiento a partir de los predictores más impactantes y la sensibilización para la notificación.

Palabras-Clave: Riesgo; intento de suicidio; epidemiología; suicidio.

INTRODUCTION

In handling isolated cases, the impression of both professionals and the general population is that suicide is present in a small proportion and therefore has a scale of reduced impact on the health-disease profile of communities, a great untruth. This phenomenon is a cause of great concern for public health demanding synergistic practices of care and prevention actions involving all levels of attention ⁽¹⁾.

According to data from the World Health Organization (WHO) ⁽²⁾, suicide has been progressively reaching the population. In 2012, approximately 804,000 deaths were recorded, corresponding to a rate of 11.4 suicides for every 100,000 people, without regard to non-reported illnesses and estimated 10-fold increases.

The main factors associated with this practice are: previous suicide attempts that predispose to progressive lethality of the method, being mentally ill (mainly depression), alcohol / drug abuse / dependence, lack of social support, family history of suicide, strong suicidal intent, stressful events and unfavorable sociodemographic characteristics such as poverty, unemployment and low educational level ⁽³⁻⁵⁾.

In Brazil, the eighth most suicidal country in the world, in 2012 a rate of 5.3 suicides was recorded for every 100,000 people, representing more than 30 deaths per day. In

20 years, the number of suicide deaths increased 1,900% in the age group of 15 to 24 years. With this incidence, it represents the third cause of death of people in full productive life ⁽²⁾.

Suicidal behavior is surrounded by taboos, involves the biopsychosocial dimensions of the human being reaching the spectrum of religion and divine determinations about life and death. In cases where the attempt is 'frustrated' the person gains stigmas that hinder individual, family and social rehabilitation.

In this context, the suicide attempt needs to be understood from the perspective of prevention. It is necessary to recognize the determinants or risk factors that have contributed to the elevation of morbidity and mortality rates for this condition. This evokes a new look at public policies and their effectiveness in vulnerable populations. This study composes the research "Mental Health and Nursing Care for the Person Who Tempted Suicide" and aims to analyze the association of factors considered at risk with the suicide attempt in people attended at a reference hospital in the northern region of Ceará from of the population-based case-control method.

It is worth highlighting that by characterizing this demand, it will be possible to identify groups at risk for tracing, monitoring and evaluation strategies, mainly in Primary Health Care. The recognition of the aspects related to the phenomenon also contributes to the improvement of care and to the ethical and social relevance promotes qualified listening, humanization and development of public policies on mental health, harm reduction and combat violence.

MATERIAL AND METHODS

This is a population-based case-control quantitative approach whose cases and controls are selected from the same population within a predefined geographical area and time period.

The scenario is the adult emergency unit of a large hospital in the northwest mesoregion of the state of Ceará. The choice of the emergency as a field of research guarantees a sample of incidents that reduces the probability of bias and allows to know the factors involved in the investigation due to hospitalization ⁽⁶⁾.

The case group consisted of people aged at least 12 admitted to the unit between August 2013 and August 2015 with initial diagnosis compatible with suicide attempt according to ICD-10. Among the exclusion criteria for the case group we consider the permanence of less than 12 hours in the unit and readmission for a new suicide attempt; in this situation, only the initial data collection instrument was revisited to complement information.

The Control group was composed of people attended in the same unit with clinical, trauma, neurological and surgical diagnoses that were not directly associated with mental health. The controls were matched case by case by sex and age (+/- 2 years) being from the same population / geographical area / region in health. Data collection from the control group occurred between January and August 2015.

Based on the following parameters: 95% confidence level, 80% power, ratio between number of controls for each case of 1, proportion of individuals exposed in the control

group of 25% and odds ratio of 2, the minimum sample was defined for 153 cases and 153 controls ⁽⁷⁾.

The data collection was done through an own form filled in from the data in the medical record and a brief semi-structured interview. Data were processed using the Statistical Package for Social Sciences (SPSS) software version 21.0.

The analyzes included the descriptive statistics, besides the application of specific tests for dependent variables. Adherence to the normal distribution was verified with the Kolmogorov-Smirnov test. In the comparison between categorized variables we applied the McNemar test. The odds ratio consisted of the magnitude of effect measure and the significance level for all analyzes was 5%. The research obtained a favorable opinion in the Ethics and Research Committee with n° 384.646 ⁽⁸⁾.

RESULTS

The average number of admissions was 1.47 cases per week. Eight deaths were recorded in the emergency sector; 55.5% of the cases progressed well with clinical improvement and hospital discharge in less than 48 hours.

The profile identified in the cases was of young adult men and women with low level of education. The controls also reported lower levels of education, but were more socially and financially stable. In correspondence with low schooling, the people who attempted suicide were mostly unemployed, informal or self-employed, and farmers. Regarding marital status, 46.4% of the cases were unmarried.

Crossing the variables age and sex, statistically significant differences were observed in the age group between 12 and 21 years, in which a higher number of suicide attempt occurrences were observed in the female sex; between 41 and 61 years, men committed self-harm four times more than women.

Exogenous Intoxication (82.35% of the sample of cases) was the most used method in this region for self-harm. Most cases (30%) ingested venom; among the compounds mentioned are organophosphates (chumbinho), various agrochemicals, pesticides and home-made substances. Ingestion of various medications (26.8%) and anxiolytics / antidepressants of the patient's own continuous use (15.7%) were also identified. Male prevalence was observed in the choice of more aggressive or lethal methods such as knife-wounding, hanging, and association of methods.

The medical diagnoses issued at the hospital admission as recorded in the attendance sheets and medical records sometimes did not correspond to the methods used, which refers to a certain difficulty in identifying and registering self-harm.

The main cause was Conflict of Love (31.4%) followed by Family Conflicts (26.8%) and Stressful Events (16.3%). In 11.8% of cases, Depression was reported as a cause more related to symptoms than to having the disease. Only 5.2% related the dependence of psychoactive substances as cause; interesting data considering that 30.0% of the cases stated to make abusive use or to be dependent on crack, alcohol and / or other drugs.

Table 1 below presents the analysis of risk factors comparably in the Case and Control groups.

Table 1: Analysis of risk factors for attempted suicide in people treated at an emergency unit. Sobral, 2015.

Case	Control		Statistics
	Yes	No	
1. Social support			p = 0.082
Yes	21	25	OR = 0.625
No	40	67	IC95%: 0.349 – 1.043
2. Leisure			p < 0.001
Yes	71	12	OR = 0.211
No	57	13	IC95%: 0.084 – 0,371
3. Drug Abuse / Dependence			p = 0.030
Yes	14	32	OR = 2.000
No	16	91	IC95%: 1.096 – 4.275
4. Religion			p = 0.416
Yes	53	33	OR = 0.805
No	41	26	IC95%: 0.484 – 1.304
5. Previous suicide attempt			p < 0.001
Yes	1	58	OR = 7.250
No	8	86	IC95%: 3.819 – 27.656
6. Family history of suicide			p = 0.022
Yes	7	33	OR = 2.062
No	16	97	IC95%: 1.137 – 4.405
7. Carrier of psychic disorder			p < 0.001
Yes	7	50	OR = 10.000
No	5	91	IC95%: 4.683 – 170.157

Source: Forms equivalent to cases and controls collected between 2013 and 2015 in the adult emergency of Santa Casa de Sobral.

Regarding the risk factors in the control group, the values were alarming: 19.6% of the controls (n = 30) reported abusive use of psychoactive drugs, with the majority being young adult males; 15% (n = 23) have a family history of suicide; 7.8% reported having a psychic disorder (n = 12); 5.9% have attempted suicide at least once (n = 9).

Regarding the protective factor, 16.3% of the controls reported not performing any leisure activities as indicated in Table 1.

It was identified that, despite the evidence of protection, the variables 'having social support' ($p = 0.082$) and 'denominating / participating in a religion / practice of spiritual support' ($p = 0.416$) did not reach statistical significance. The practice of leisure activities (individual, family or community) was shown to be a protective factor, reducing the chance of suicide attempt by approximately 80% ($OR = 0.211$). Four factors obtained statistical significance for risk of self-inflicted violence: Abuse / drug addiction (doubles the chances of suicide attempt); family history of suicide (doubles the chances of suicide attempt); previous suicide attempt (increased risk seven times more for the current episode of self-harm); be a carrier of some psychic disorder (10 times increased risk for the current episode of self-harm).

The following tables deal separately with the four factors that obtained statistical significance for risk of self-inflicted violence by crossing data by sex and age.

Table 2: Drug abuse among cases of suicide attempted in the Santa Casa de Sobral adult emergency between 2013 and 2015 by age and sex.

Age	Male		Female		Statistics
	Yes	No	Yes	No	
1. Between 12 and 21 years	6	4	4	27	$p = 0.006^1$ $OR = 9.34$ $IC95\%: 1.50 - 71.21$
2. Between 21 and 41 years	20	24	8	31	$p = 0.030^2$ $OR = 3.18$ $IC95\%: 1.11 - 9.90$
3. Between 41 and 61 years	6	14	1	4	$p = 1.000^1$ $OR = 1.68$ $IC95\%: 0.12 - 98.24$
4. Over 61 years	1	2	0	1	$p = 1.000^1$ $OR = Inf.$ $IC95\%: 0.01 - Inf.$
Total	33	44	13	63	$p < 0.001^2$ $OR = 3.60$ $IC95\%: 1.63 - 8.36$

Source: Forms equivalent to the cases collected between 2013 and 2015 in the adult emergency of Santa Casa de Sobral. 1 - Fisher's exact test; 2 - Chi-square test.

In 30.0% of cases, abusive use / dependence on crack, alcohol and other drugs was identified. Of these 30%, the young adult uses more (60.9%) and the majority is male (71.7%).

Table 3: Previous suicide attempt reported by patients seen in the adult Santa Casa de Sobral emergency between 2013 and 2015 for suicide attempt according to age and sex.

Age	Male		Female		Statistics
	Yes	No	Yes	No	
1. Between 12 and 21 years	1	9	10	21	p = 0.238 ¹ OR = 0.24 IC95%: 0.00 – 2.19
2. Between 21 and 41 years	17	27	16	23	p = 1.000 ² OR = 0.91 IC95%: 0.34 – 2.39
3. Between 41 and 61 years	9	11	4	1	p = 0.322 ¹ OR = 0.22 IC95%: 0.00 – 2.72
4. Over 61 years	2	1	0	1	p = 1.000 ¹ OR = Inf. IC95%: 0.02 – Inf.
Total	29	48	30	46	p = 0.949 ² OR = 0.93 IC95%: 0.46 – 1.87

Source: Forms equivalent to the cases collected between 2013 and 2015 in the adult emergency of Santa Casa de Sobral. 1 - Fisher's exact test; 2 - Chi-square test.

It is identified that 38.6% of the sample had a history of previous autoaggression. Proportionally, the adult and the elderly have a prevalence greater than 50% of this risk factor. Men and women presented approximate proportion. The most significant difference is in the age range between 12 and 21 years where women had a 10-fold higher prevalence of previous episode.

Table 4: Family history of suicide among cases of suicide attempted in the Santa Casa de Sobral adult emergency between 2013 and 2015 by age and sex.

Age	Male		Female		Statistics
	Yes	No	Yes	No	
1. Between 12 and 21 years	3	7	10	21	p = 1.000 ¹ OR = 0.90 IC95%: 0.12 – 5.10
2. Between 21 and 41 years	15	29	5	34	p = 0.045 ² OR = 3.46 IC95%: 1.03 – 13.7
3. Between 41 and 61 years	4	16	2	3	p = 0.562 ¹ OR = 0.39 IC95%: 0.03 – 6.18
4. Over 61 years	1	2	0	1	p = 1.000 ¹ OR = Inf. IC95%: 0.00 – Inf.
Total	23	54	17	59	p = 0.383 ² OR = 1.47 IC95%: 0.67 – 3.28

Source: Forms equivalent to the cases collected between 2013 and 2015 in the adult emergency of Santa Casa de Sobral. 1 - Fisher's exact test; 2 - Chi-square test.

The family history of suicide is present in 26.1% of cases being more frequent among adult men. A total of 29.9% of men and 22.4% of women have this factor which may suggest that in males this variable manifests most strongly in the determination of the act. The age group of young adults (between the ages of 21 and 41) presented a statistically significant difference, in which men who attempted suicide presented a three times greater chance than women ($p = 0.045$) of reporting a family suicide.

Table 5: Presence of basic mental disorder among the cases of attempted suicide assisted in the adult emergency of Santa Casa de Sobral between 2013 and 2015 according to age and sex.

Age	Male		Female		Statistics
	Yes	No	Yes	No	
1. Between 12 and 21 years	0	10	10	10	21 $p = 0.084^1$ OR = 0.00 IC95%: 0.00 – 1.19
2. Between 21 and 41 years	16	28	18	18	21 $p = 0.495^2$ OR = 0.67 IC95%: 0.25 – 1.76
3. Between 41 and 61 years	9	11	3	3	2 $p = 0.645^1$ OR = 0.56 IC95%: 0.04 – 6.04
4. Over 61 years	1	2	0	0	1 $p = 1.000^1$ OR = Inf. IC95%: 0.00 – Inf.
Total	26	51	31	31	45 $p = 0.465^2$ OR = 0.74 IC95%: 0,36 – 1.50

Source: Forms equivalent to the cases collected between 2013 and 2015 in the adult emergency of Santa Casa de Sobral. 1 - Fisher's exact test; 2 - Chi-square test.

The results indicate that, quantitatively, adults have a higher prevalence of diagnosed psychiatric disorder, with a majority of women between 21 and 41 years of age. Women in general have this diagnosis better defined (20.3%). No disorders were identified in male adolescents.

It is noteworthy that 20.26% of the cases previously attempted suicide and had underlying mental disorder showing a strong association between these risk factors with an approximate increase of three times more chance of previous suicide attempt among people with underlying psychopathologies.

DISCUSSION

Self-directed violence as a public health issue with multifactorial etiology may present different clinical contexts associated more specifically to individual variables such as degree of mental illness, culture of origin, family structure and previous history.

The socio-demographic profile identified for attempted suicide pointed out that statistically men and women attempted suicide in the same proportion. This data points to a possible change in epidemiological patterns in this region, since the literature points out the predominance of women in self-inflicted violence ⁽⁹⁻¹³⁾ or may also suggest that risk factors in this reality are affecting males more directly. In Ceará, in 2012, 352 hospitalizations for self-inflicted injuries were recorded, 238 of which were in men and 114 in women, which already shows this transition ⁽¹⁴⁾.

Regarding the restricted social support and low level of schooling evident in both the Case and the Control groups, it is proposed that social security and job training policies be encouraged, as well as other intersectoral actions that make up the set of impact strategies on the determinants of mental health that reflect the morbidity of ideation and suicide attempt.

There was similarity in patterns of self-directed violence to both single-person and single-marriage partners. Although loneliness is pointed out as an inappropriate context for those who have ideas of death ⁽¹⁵⁾; in reality investigated, self-aggression was associated with much of the interpersonal and love conflicts experienced in stable relationships.

A case-control study by Harrison et al. ⁽¹⁶⁾ conducted with the elderly concluded that, contrary to popular belief, difficulties in interpersonal relationships, hostility and conflicts predispose suicide more than solitude itself.

Family conflicts were also identified as risk-takers; an international study reveals that single-parent families, high-risk relationships involving fathers and mothers, and changes in family structure and functioning are extremely risk factors for child and adolescent suicide ⁽¹⁷⁾.

The findings also allow one to conclude that women attempt suicide earlier and earlier and men later. In a study carried out with Argentine adolescents in the context of self-harm, 56.1% of the sample was also female, which corroborates the results found ⁽¹⁷⁾. The most commonly used method was Exogenous Intoxication. Several studies acknowledge the increasing use of toxic agents as "weapons" to inflict self-harm ⁽¹⁸⁾. The reason may be related to the difficulty of access to more lethal means such as firearms or even the fear of suffering before death, especially in individuals who commit the act for the first time.

A study carried out in the same hospital analyzed the in-hospital reports for attempted suicide by exogenous intoxication concluded that "the incidence considered high, if compared to other regions of the country, presents the emergency character of these actions before the exposure facilitated to toxic, rates increasing notifications and high rates among female adolescents" ⁽¹⁹⁾.

The high use of poisons may be associated with the rural culture of many surrounding municipalities that use agriculture as a source of income and subsistence. A case-control study ⁽²⁰⁾ in China identified the relationship of pesticides to suicide in a rural community. Of the 370 suicides included, 245 (66.2%) died from ingestion of a pesticide, 50.4% had a pesticide at home, 22.6% had more than two pesticides at home between herbicide, insecticide, bactericide and rat poison.

Drug intoxications, including anxiolytics and antidepressants, have been highlighted for a possible pattern of self-medication and indiscriminate prescription of drugs. This method has significant clinical significance as the overdose generates long-term systemic effects almost always requiring prolonged hospitalization. According to SINITOX (National System of Toxic-Pharmacological Information), only 637 suicide attempts were recorded in the Northeast due to drug ingestion in 2012 ⁽²¹⁾.

Erlangsen et al ⁽²²⁾ conducted a cohort study to assess the proportion of elderly people who died of suicide who had recently prescribed antidepressants. An increasing gap between the estimated prevalence of depression and the antidepressant prescription rate for the sample was identified.

Regarding incongruent hospitalization diagnoses, this is referred to as the underlying cause for underreporting of cases. The difficulty of recording diagnoses according to ICD-10 for self-inflicted injuries interferes with the problem dimension since epidemiological data collection is based on death certificates, in-hospital and outpatient notification systems that may contain failures, as they depend on subjective interpretation of the professional who fills them.

Of the 153 cases, eight evolved to death in the emergency department more related to the exposure / lethality of the method and time elapsed until the attendance rather than to the hospital care or clinical complications resulting from hospitalization. In the perspective of the study, discussing the number of deaths recorded refers to the inefficiency of prevention actions and the impact factor that these risk variables exert on the population.

Considering leisure as a subjective aspect difficult to measure, it is emphasized the importance of encouraging in practical risk groups that bring comfort, sociability and joy through strong protective impact evidenced by the research.

As for risk factors, it is worth emphasizing that the identified context is not a determining factor for self-inflicted violence, but it can interact and contribute to its occurrence when there is intense psychic suffering, that is, risk alone does not determine self-harm, but a circumstantial construct is that it triggers the act.

In regard to drug abuse or dependence, several authors present alcohol as the most strongly associated substance; either as motivation (having this dependence gives negative meaning to life) or stimulating (the ideation of death is driven by the effect of alcohol) ⁽²³⁻²⁵⁾.

For this population, the results showed that adolescent drug use can increase the risk for self-violence by up to nine times and that this risk is much more present in males, which corroborates with the provisions in the national and international literature.

Another variable considered at risk is the previous suicide attempt. It is a consensus among researchers that the person who has experienced the experience of getting hurt sees their problems increase after the episode and begins to visualize more lethal alternatives to commit suicide. It is presumed that any context of risk that has already triggered a self-harm is maintained and, if there is no intervention, it may incur again. Adolescents had a tenfold increase in this factor in women and adults accounted for the largest number of cases with this individual history. Somewhat worrisome for researchers who analyzed a retrospective cohort in Minas Gerais and identified 807

suicide attempts in six years, of which 12 evolved to suicide death the majority in less than 24 months after the previous episode ⁽²⁶⁾.

On the family history of suicide, he predicts that living with people with an ideation of death is harmful and also suggests that genetic inheritance has an influence on self-destructive behavior. Pioneering studies of genome association with suicide attempt have not yet identified specific variants, but they already indicate the presence of factors that relate self-directed violence as a familial expression / phenotype in conjunction with environmental aspects ^(27,28).

In studying the family history of 680 adolescents who attempted suicide, researchers identified that 12 of them had parents who died of suicide, revealing strong evidence that even the choice of method tends to be the same in these parental nuclei. In the sample of this study, the male and the adolescent were the most affected by this variable, corroborating this study ⁽²⁹⁾.

From the characterization of the cases, it was also concluded that self-harm is treatable, since most people with self-destructive behavior have inadequately diagnosed and / or treated psychic disorders such as schizophrenia, mood disorders, personality disorders and the Depression.

Thus, the adequate approach of people with mental disorders, notably depression, in general health services seems to be the most effective way to prevent suicide ⁽³⁰⁾.

In this investigation, 20.26% of the sample of cases previously attempted suicide and had basic mental disorder showing strong association between these risk factors with an approximate increase of three times more chance of people diagnosed with psychic disorder also refer to previous suicide attempt.

Despite the possibility of delimiting risk strata, self-inflicted violence is not a foreseeable phenomenon, but can grow in a society where financial difficulties, family disorganization, drug use, violence, value reform and fragility of the health system are remarkable.

CONCLUSION

The results are consistent to define as risk factors for self-abuse violence abusive use / drug dependence, previous attempt of self-extermination, family history of attempted suicide and conduct a psychopathology.

In the sample of cases, young adults who used Exogenous Intoxication as a motivation for love and family conflicts prevailed. Leisure has proved to be a protective factor. Many of the controls reported suicidal ideation at some point in their lives, revealing the high prevalence of risk and difficulty in monitoring cases within the Mental Health Network.

Among all the variables investigated, the previous attempt of self-extermination and being a mental disorder were shown to have greater impact power in this region, defining as an urgent prevention strategy to strengthen the Mental Health Network and the health services in general to delimit flows of care and to enable the proper diagnosis, early treatment and monitoring of self-injurious behavior. Screening from these predictors and sensitization for reporting is recommended.

The study has limitations as it includes only one hospital unit, but from the results found, clinical context and risk associations, we determined that the identified variables have potential reach in the general population evidenced by the controls predisposing to self-injurious behavior.

All the research was developed with the support of the hospital psychology service considering the ethical parameters inherent to the biological and psychological vulnerability of the patient and their relatives.

Based on these notes, it is possible to rethink attitudes, actions and policies directed to suicide, aiming at strengthening the network of surveillance and control of the commercialization and availability of means, as well as the records and notifications of people served by self-harm. It is plausible to infer that this information collected from survivors can prevent new cases or readmissions.

REFERENCES

1. Van der Feltz-Cornelis CM, Sarchiapone M, Postuvan V, Volker D, Roskar S, Grum AT, Carli V, McDaid D, O'Connor R, Maxwell M, Ibelshauer A, Van Audenhove C, Scheerder G, Sisask M, Gusmão R, Hegerl U. Best practice elements of multilevel suicide prevention strategies: a review of systematic reviews. *Crisis* 2011; 32(6): 319-333.
2. World Health Organization (WHO). Preventing Suicide: a global imperative. Geneva: WHO Library; 2014.
3. Overholser JC, Braden A, Dieter L. Understanding Suicide Risk: Identification of High Risk Groups during High Risk Times. *J Clin Psychol* 2012; 68(3): 349-361.
4. Lovisi GM, Santos SA, Legay L, Abelha L, Valencia E. Análise epidemiológica do suicídio no Brasil entre 1980 e 2006. *Rev. Bras. Psiquiatr.* [periódico na Internet]. 2009 [acessado 2013 Jan 23]; 31(2): 86-93. Disponível em: <http://www.scielo.br/pdf/rbp/v31s2/v31s2a07.pdf>
5. Chan LF, Shamsul AS, Maniam, T. Are predictors of future suicide attempts and the transition from suicidal ideation to suicide attempts shared or distinct: A 12-month prospective study among patients with depressive disorders. *Psychiatry Res.* 2014; 220(3): 867-873.
6. Rêgo MAV. Estudos caso-controle: uma breve revisão. *Gaz. Med. Bahia* [periódico na Internet]. 2010 [acessado 2015 Mar. 11]; 80(1): 101-110. Disponível em: <http://www.gmbahia.ufba.br/index.php/gmbahia/article/view/1089>
7. Lopes MVO, Lima JRC. Análise de Dados Epidemiológicos. In: Rouquayrol MZ, Silva MGC, organizadores. *Epidemiologia e Saúde*. 7. ed. Rio de Janeiro: MedBook; 2013. 709p.
8. Brasil. Ministério da Saúde. Resolução de nº 466, de 12 de dezembro de 2012. Dispõe sobre pesquisas envolvendo seres humanos. Brasília: Ministério da Saúde; 2012.
9. Bernardes SS, Turini CA, Matsuo T. Perfil das tentativas de suicídio por sobredose intencional de medicamentos atendidas por um Centro de Controle de Intoxicações do Paraná, Brasil. *Cad. Saúde Pública* [periódico na Internet]. 2010 [acessado 2015 Set. 20]; 26(7): 1366-1372. Disponível em: <http://www.scielosp.org/pdf/csp/v26n7/15.pdf>

10. Santos AS, Lovisi G, Legay L, Abelha L. Prevalência de transtornos mentais nas tentativas de suicídio em um hospital de emergência no Rio de Janeiro, Brasil. *Cad. Saúde Pública* [periódico na Internet]. 2009 [acessado 2015 Jun. 05]; 25(9): 2064-2074. Disponível em: <http://www.scielo.br/pdf/csp/v25n9/20.pdf>
11. Pires MCC, Raposo MCF, Pires M, Sougey EB, Bastos Filho OC. Stressors in attempted suicide by poisoning: a sex comparison. *Trends Psychiatry Psychother* [periódico na Internet]. 2012 [acessado 2015 Out. 18]; 34(1): 25-30. Disponível em: <http://www.scielo.br/pdf/trends/v34n1/a06v34n1.pdf>
12. Diehl A, Laranjeira R. Suicide attempts and substance use in an emergency room sample. *J Bras Psiquiatr* [periódico na Internet]. 2009 [acessado 2015 Nov. 15]; 58(2): 2009. Disponível em: <http://www.scielo.br/pdf/jbpsiq/v58n2/v58n2a03.pdf>
13. Stefanello S, Cais CFS, Mauro MLF, Freitas GVS, Botega NJ. Gender differences in suicide attempts: preliminary results of the multisite intervention study on suicidal behavior (SUPRE-MISS) from Campinas, Brazil. *Rev Bras Psiquiatr* [periódico na Internet]. 2008 [acessado 2015 Jun. 05]; 30(2): 139-143 Disponível em: <http://www.scielo.br/pdf/rbp/v30n2/2566.pdf>
14. Brasil. Ministério da Saúde. *Indicadores e Dados Básicos*. Rede Interagencial de Informações para a Saúde (RIPSA). Brasília: Ministério da Saúde; 2012.
15. Botega NJ, Marín-Leon L, Oliveira HB, Barros MBA, Silva VF, Dalgalarondo P. Prevalências de ideação, plano e tentativa de suicídio: um inquérito de base populacional em Campinas, São Paulo, Brasil. *Cad Saúde Pública* [periódico na Internet]. 2009 [acessado 2015 Set. 20]; 25(12): 2632-2638. Disponível em: <http://www.scielo.br/pdf/csp/v25n12/10.pdf>
16. Harrison KE, Dombrovski AY, Morse JQ, Houck P, Schlernitzauer M, Reynolds CF, Szanto K. Alone? perceived social support and chronic interpersonal difficulties in suicidal elders. *Int Psychogeriatr* 2010; 22(3): 445-454.
17. Bella ME, Fernández RA, Willington JM. Identificación de factores de riesgo en intentos de suicidio en niños y adolescentes. *Rev Argent Salud Publica* 2010; 1(3): 24-29.
18. Damas FB, Zannin M, Serrano AI. Tentativas de suicídio com agentes tóxicos: análise estatística dos dados do CIT/SC (1994 a 2006). *Rev Bras Toxicol* [periódico na internet]. 2009 [acessado 2015 Nov. 15]; 22(2): 21-26. Disponível em: [http://www.sbtox.org.br/Revista_SBTox/V22\[1-2\]2009/V22%20n%201-2%20Pag%2021-26.pdf](http://www.sbtox.org.br/Revista_SBTox/V22[1-2]2009/V22%20n%201-2%20Pag%2021-26.pdf)
19. Oliveira EN, Félix TA, Mendonça CBL, Ferreira GB, Freire MA, Lima PSF, Teodosio TT, Almeida PC, Linhares JM, Souza DR. Tentativa de suicídio por intoxicação exógena: contexto de notificações compulsórias. *Rev Gestão e Saúde* 2015; 6(3): 2497-2511.
20. Kong Y, Zhang J. Access to farming pesticides and risk for suicide in Chinese rural young people. *Psychiatry Res* 2010; 179(2): 217-221.
21. Brasil. Ministério da Saúde. Casos Registrados de Intoxicação Humana por Agente Tóxico e Circunstância [Internet]. Região Nordeste: SINITOX; 2012 [acessado 2015 Dez. 05]. Disponível em: <http://www.fiocruz.br/sinitox/media/NO%20Tabela%204%202012.pdf>
22. Erlangsen A, Conwell Y. Age-Related Response to Redeemed Antidepressants Measured by Completed Suicide in Older Adults: A Nationwide Cohort Study. *Am J Geriatr Psychiatry* 2014 Jan; 22(1): v. 22, n. 1, p. 25-33.
23. Branas CC, [Richmond TS](#), [Ten Have TR](#), [Wiebe DJ](#). Acute Alcohol Consumption, Alcohol Outlets, and Gun Suicide. *Subst Use Misuse* 2011; 46(13): 1592-1603.
24. Vásquez CA, Buitrago SCC, Castrillón JJC, Ramos LC, Valencia KJG, Guevara JLM, Villegas JCO, Valencia GLS. Riesgo suicida e factores asociados em

instituciones de rehabilitación para adictos a las drogas em la ciudad de Manizales (Colombia), 2012. *Arch Med (Manizales)* 2013; 13(1): 11-23.

25. Lima DD, Azevedo RCS, Gaspar KC, Silva VF, Mauro MLF, Botega NJ. Tentativa de suicídio entre pacientes com uso nocivo de bebidas alcoólicas internados em hospital geral. *J Bras Psiquiatr* [periódico na Internet]. 2010 [acessado 2015 Ago. 8]; 59(3): 167-172. Disponível em: <http://www.scielo.br/pdf/jbpsiq/v59n3/a01v59n3.pdf>

26. Vidal CEL, Gontijo ECDM, Lima LA. Tentativas de suicídio: fatores prognósticos e estimativa do excesso de mortalidade. *Cad. Saúde Pública* [periódico na Internet]. 2013 [acessado 2015 Ago. 20]; 29(1): 175-187. Disponível em: <http://www.scielo.br/pdf/csp/v29n1/20.pdf>

27. Mullins N, [Perroud N](#), [Uher R](#), [Butler AW](#), [Cohen-Woods S](#), [Rivera M](#), [Malki K](#), [Euesden J](#), [Power RA](#), [Tansey KE](#), [Jones L](#), [Jones I](#), [Craddock N](#), [Owen MJ](#), [Korszun A](#), [Gill M](#), [Mors O](#), [Preisig M](#), [Maier W](#), [Rietschel M](#), [Rice JP](#), [Müller-Myhsok B](#), [Binder EB](#), [Lucae S](#), [Ising M](#), [Craig IW](#), [Farmer AE](#), [McGuffin P](#), [Breen G](#), [Lewis CM](#). Genetic Relationships Between Suicide Attempts, Suicidal Ideation and Major Psychiatric Disorders: A Genome-Wide Association and Polygenic Scoring Study. *Am J Med Genet B* 2014; 165B(5): 428-437.

28. Omrani MD. A associação do TGF β 1 codão 10 polimorfismo com comportamento suicida. *Am J Med Genet B* 2012; 159B(7): 772-775.

29. Lu TH, [Chang WT](#), [Lin JJ](#), [Li CY](#). Suicide Method Runs in Families: A Birth Certificate Cohort Study of Adolescent Suicide in Taiwan. *Suicide Life Threat Behavior* 2011 Dec; 41(6): 685-690.

30. [Trivedi MH](#), [Morris DW](#), [Wisniewski SR](#), [Nierenberg AA](#), [Gaynes BN](#), [Kurian BT](#), [Warden D](#), [Stegman D](#), [Shores-Wilson K](#), [Rush AJ](#). Clinical and sociodemographic characteristics associated with suicidal ideation in depressed outpatients. *Can J Psychiatry* [periódico na Internet]. 2013 [acessado 2015 Ago. 20]; 58(2): 13-22. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/23442899>

ISSN 1695-6141

© COPYRIGHT Servicio de Publicaciones - Universidad de Murcia