

Profile of the attention provided to suicide attempts by adolescents in emergency rooms and associated factors



Perfil dos atendimentos às tentativas de suicídio por adolescentes em pronto-socorro e fatores associados

Perfil de las atenciones por intentos de suicidio en adolescentes en los servicios de emergencia y factores asociados

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ABSTRACT

Objective: to identify the profile of emergency department visits for suicide attempts by adolescents and their associated factors.

Method: a cross-sectional, documentary, and retrospective study was conducted with 140 medical records of adolescents treated for suicide attempts in an emergency department linked to a teaching hospital in the municipality of São Paulo, Brazil, between January 2015 and May 2023. Data was collected between August and November 2023. Descriptive and inferential analysis (Pearson's chi-square test) was performed, considering a p -value ≤ 0.05 as statistically significant. National ethical guidelines were respected.

Results: drug intoxications were the most common, associated with females ($p < 0.001$) and continuous use of psychotropic medications ($p = 0.01$). Poisonings were associated with the absence of continuous psychotropic medication use ($p = 0.02$) and treatment in the emergency room ($p = 0.01$). Males were associated with intoxications from alcohol and drugs ($p < 0.001$), wounds from sharp objects ($p < 0.05$), and precipitation ($p = 0.03$).

Conclusion: this study found a prevalence of emergency department visits for suicide attempts through intoxications associated with sex, medication use, and treatment in the emergency room. We hope that his profile can help professionals structure action plans to improve clinical care, mental health care, prevention, and post-attempt strategies.

Descriptors: Adolescent. Suicide Attempted. Emergency Medical Services. Adolescent Health. Mental Health.

RESUMO

Objetivo: identificar o perfil dos atendimentos às tentativas de suicídio por adolescentes em pronto-socorro e seus fatores associados.

Método: estudo transversal, documental e retrospectivo, realizado com 140 prontuários de adolescentes atendidos por tentativa de suicídio em um departamento de urgência e emergência, vinculados a um hospital escola do município de São Paulo, Brasil, entre janeiro de 2015 e maio de 2023. Os dados foram coletados entre agosto e novembro de 2023. Foi realizada uma análise descritiva e inferencial (teste qui-quadrado de Pearson), considerando o valor de $p \leq 0,05$ como diferença estatística. Respeitaram-se as diretrizes éticas nacionais.

Resultados: prevaleceram as intoxicações medicamentosas, associadas com o sexo feminino ($p < 0,001$) e com o uso de medicações psicotrópicas contínuas ($p = 0,01$). Nas intoxicações por veneno, observou-se associação com a ausência de uso de medicação psicotrópica contínua ($p = 0,02$) e atendimento em sala de emergência ($p = 0,01$). O sexo masculino se associou com intoxicações por álcool e outras drogas ($p < 0,001$), ferimento por arma branca ($p < 0,05$) e precipitação ($p = 0,03$).

Conclusão: neste estudo, observou-se uma prevalência de atendimentos às tentativas de suicídio por intermédio de intoxicações associadas com sexo, uso de medicação e atendimento em sala de emergência. Espera-se que, com este perfil, os profissionais possam estruturar planos de ação para aperfeiçoar o atendimento clínico, o acolhimento em saúde mental, e estratégias de prevenção e acolhimento pós-tentativa.

Descritores: Adolescente. Suicide attempt. Serviços Médicos de Emergência. Saúde do Adolescente. Saúde Mental.

RESUMEN

Objetivo: identificar el perfil de la atención ofrecida en los servicios de emergencia a los adolescentes que intentaron suicidio y factores asociados.

Método: estudio transversal, documental y retrospectivo, realizado con 140 historias clínicas de adolescentes atendidos por intento de suicidio en un departamento de urgencias y emergencias, vinculado a un hospital escuela en el municipio de São Paulo, Brasil, entre enero de 2015 y mayo de 2023. Los datos se recopilaron entre agosto y noviembre de 2023. Se realizó un análisis descriptivo e inferencial (prueba de chi-cuadrado de Pearson), considerando un valor de $p \leq 0,05$ como diferencia estadística. Se respetaron las directrices éticas nacionales.

Resultados: prevalecieron las intoxicaciones medicamentosas, asociadas con el sexo femenino ($p < 0,001$) y el uso de medicamentos psicotrópicos continuos ($p = 0,01$). En las intoxicaciones por veneno, se observó asociación con la ausencia de uso de medicación psicotrópica continua ($p = 0,02$) y la atención en sala de emergencias ($p = 0,01$). El sexo masculino se asoció con intoxicaciones por alcohol y drogas ($p < 0,001$), heridas por arma blanca ($p < 0,05$) y precipitación ($p = 0,03$).

Conclusión: en este estudio, se observó una prevalencia de atenciones por intentos de suicidio mediante intoxicaciones asociada a sexo, uso de medicación y atención en sala de emergencias. Se espera que, con este perfil, los profesionales puedan estructurar planes de acción para mejorar la atención clínica, la atención en salud mental y las estrategias de prevención y post-intento.

Descriptorios: Adolescente. Intento de Suicidio. Servicios Médicos de Urgencia. Salud del Adolescente. Salud Mental.

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■ INTRODUCTION

Child and adolescent mental health issues have become a global public health issue. As years passed, the number of children and adolescents with mental disorders, or who have been exposed to adverse situations in childhood, grew exponentially⁽¹⁻²⁾. Special attention should be given to adolescents, since numerous changes happen in this period of life, such as the improvement of social skills, increased responsibilities, and more demands. Although these changes are a natural part of human development, they may be the cause of mental suffering which, if not cared for, can culminate in mental health issues⁽³⁻⁴⁾.

A cross-sectional investigation estimated that from 29 to 45% of the demand for mental care in health services is for adolescents. The main complaints are associated with suicidal behavior, which represents 23.7% of cases⁽¹⁾. Suicidal behavior includes: suicidal ideation, with thoughts that promote the desire for the end of existence; suicidal planning, when one starts to articulate possibilities of how to end their own life; suicide attempt, the focus of this study, which refers to actions intentionally take to end one's own life; and suicide itself, when the act of killing oneself was deliberate and has already taken place⁽³⁾.

The number of cases of suicidal behavior may be underestimated due to undernotifications, while cases of actual suicide have more representative rates. Furthermore, estimates suggest that suicidal ideation varies from 9.2-17%, suicidal planning varies from 5-10%, and suicide attempts vary from 3-17%^(3,5). As for suicides, the World Health Organization (WHO) states that, in the general population, there is a rate of 10 suicides per 100 thousand people, one every 40 seconds⁽⁶⁾. Among adolescents, estimates indicate around three suicides per 100,000⁽⁷⁾. Literature indicates, as risk factors to suicidal behavior, behaviors such as self-mutilation and/or psychoactive substance use; health needs, such as changes in one's body self-image; and stress, with conflicts related to the exposure to violence⁽⁶⁻⁷⁾.

Approximately 90% of suicides take place in developing countries. However, less than 15% of the research on this topic are conducted in these countries, such as Brazil⁽⁶⁻⁷⁾. Another point is that, in the last 30 years, there has been a 30% reduction in the global rate of suicides, but an increased number of suicide attempts^(3,7), 1/3 of which are attended in emergency rooms (ER)⁽¹⁾.

Although primary care and specialized services are the ones that organize the network and function as the entryway for adolescents with mental issues into the Psychosocial Care Network (RAPS), there is not much search for these services. This may be due to the stigma surrounding mental health needs; the intrinsic distancing of adolescents from health

services, usually being attended only in regard to reproductive needs or damage reduction; and the separation between RAPS devices, which may force adolescents to go on long searches for these services. Thus, the ER has become an essential device of the RAPS, providing care to urgent cases that, often, is also the first one received by these patients⁽⁸⁾. Considering this context, if one is to advance in this topic, studies in the ER are relevant to find adolescents who committed suicide attempts and identify how they are attended.

A systematic review to ascertain the priorities of studies about child and adolescent health, from 2020 to 2029, highlighted the need of mental health improvements, especially regarding how attention and access to the network take place⁽⁹⁾. Similarly, another investigation suggested that one of the priorities of mental health care is working with suicidal behavior, identifying the current situation of clinical practice and trying to improve it⁽²⁾. Moreover, the WHO, in their last LIVE LIFE guideline, mentions, as one of the main pillars for the advancement of suicide studies, an analysis of the current situation, considering the prevalence, methods, and interventions carried out⁽⁶⁾.

Considering the above, the following research question was elaborated: What is the profile of the care provided to suicide attempts by adolescents in ERs, and what are the associated factors? Recognizing this context can enable advances in literature and move it closer to the research priorities established. This study aimed to identify the profile of the care provided to suicide attempts by adolescents in ERs, and its associated factors.

■ METHOD

This is a cross-sectional, documental, and retrospective study. It was written using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) for cross-sectional studies⁽¹⁰⁾.

An investigation was carried out involving all printed records of suicide attempts committed by adolescents that were attended in an emergency room. The ER in question is part of a secondary-level teaching hospital in the city of São Paulo, state of São Paulo, Brazil, which counts with a children's ER that attends teenagers from 10 to 15 years old, and an adult ER, which attends those from 15 to 19 years old. It should be noted that, from 2015 on, ERs were reconfigured, becoming references in the network, providing urgent care, attending emergencies and referred cases.

Inclusion criteria considered records of adolescents from 10 to incomplete 19 years of life⁽⁶⁾, who were attended due to suicide attempts, and whose intentions were clear. The time frame was from January 2015 to May 2023, a period chosen as it marks the change in the ER configuration.

To identify the attempts in the records, we used the following codes from the International Classification of Diseases and Health Related Issues, 10th edition⁽¹¹⁾: X60 to X84 (suicide attempt); T36 a T78 (poisoning); X60 to X84 (self-harm); T50.9 a T65.9 (exogenous intoxication, undetermined intent); and Y09 to X34 (accident, undetermined intent). Since scientific literature points out that few suicide attempts are notified⁽¹²⁾, we decided to expand the search of records, including the possible ways in which it could be done

The extended analysis of the records included those whose intentionality was clearly documented, implicitly or explicitly, including reports of the teenagers themselves⁽³⁾. This evaluation was carried out by a nurse, a specialist in child and adolescent health, who was the main author of this study, with broad experiences in providing care to cases of adolescent suicide attempts, and experience acquired in the institution involved. The other records were not part of the sample. There were no exclusion criteria.

420 records were found, read in full, and evaluated regarding whether they documented clearly that the teenager intended to take their own life. For data collection, the Medicine and Statistics Filing Services (SAME) were asked for the records of teenagers whose medical care was in accordance with the ICD-10 classifications mentioned above. Data was collected from August to November 2023, and, after

analysis, 140 records were included (Figure 1). It is noteworthy that there was no sample size calculation, since our goal was to collect all cases found in the period selected.

For data collection, we formulated an instrument with variables regarding the profile of the adolescent, such as sex, color (white and not white (black, brown, Asian, and indigenous)), age, educational level (elementary school or lower, high school, and higher education), previous mental disorder diagnoses, use of continuous medication, in addition to data regarding how the suicide attempt was characterized, from the place of the occurrence to the interventions carried out when the patient arrived in the ER. To classify the mental disorder we used the F section of the CID-10, as mentioned above. For the use of continuous psychotropic medication, we used the anatomic, therapeutic, and chemical classification of the WHO⁽¹³⁾, considering drugs used daily in the 30 days before care as continuous.

Data was tabulated and submitted to descriptive and inferential analysis using the software Stata18[®] (Stata Corporation, College Station, Texas, USA). For a descriptive analysis, we used percentages; for the categoric variables, we used central tendency measures (mean), and for continuous variables we used dispersion measures (standard deviation (SD)). For the inferential analysis, we used the depending variable "means used for the suicide attempt", including

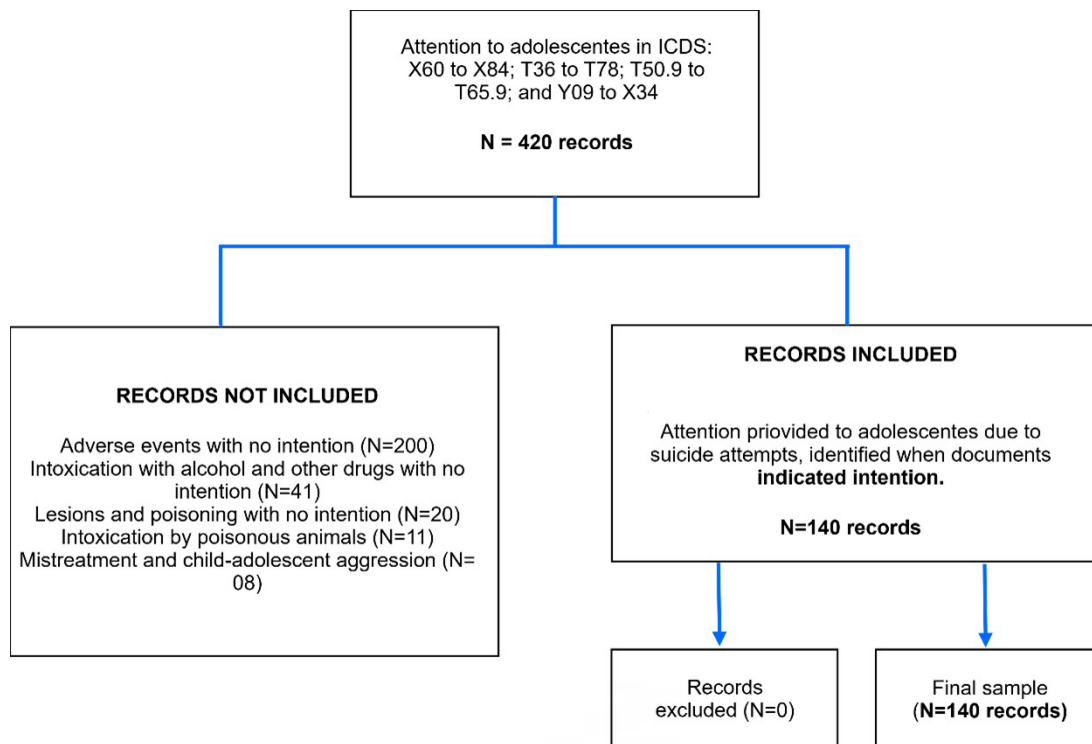


Figure 1 – Flowchart of records included in the study. São Paulo, SP, Brazil.

a test of associate with the independent variables: profile of the adolescents and resources used in care, including Pearson's chi-squared. We considered a p-value $\leq 0,05$ (5%) as the statistical difference in a confidence interval of 95%.

This study was approved by the Research Ethics Committee of the Nursing School at the Universidade de São Paulo (CAAE:69224823.9.0000.5392) and by the partner institution (CAAE: 69224823.9.3001.0076). All ethical precepts from Resolutions 466/12 and 510/16, from the National Council of Health, were respected. Informed consents were not necessary after the main research signed the Statement of Responsibility.

■ RESULTS

Data was collected from 140 records, showing cases of suicide attempts recorded in the ER from January 2015 to

May 2023. The mean age was 16 years old (SD: 2.2), and most teenagers were female (80.7%), white (80.7%), and had at most finished high school (54.2%). Furthermore, 73 students had been diagnosed with at least one previous mental disorder, in most cases, with an episode of depressive disorder (37.8%). Additionally, 51 used at least one continuous psychotropic drug, such as antidepressants (19.3%) (Table 1).

Most suicide attempts took place at home (92.1%), via drug intoxication (84.6%), and a relative transported the adolescent to the ER (72.9%). Most were attended on weekdays (86.4%), at night (48.6%), and arrived at the ER with a minor degree in the Glasgow Coma Scale (88.6%). Psychiatric evaluations (66.4%) and social services (34.3%) were the main resources used, while stomach pumps (29.3%) were the main intervention. Only 28.5% of cases were notified. The adolescents spent a mean of 14 hours under observation in the ER (Table 2).

Table 1 – Profile of adolescents and risk factors (N=140). São Paulo, SP, Brazil.

Age (years)		Mean±SD	Min-Max
		16.3 (+2.2)	10-19
		N	%
Sex	Female	113	80.7
	Male	27	19.3
Color	White	113	80.7
	Non-white	27	19.3
Age	10 to incomplete 14 years of age	35	25.0
	15 to incomplete 19 years of age	105	75.0
Educational level	Up to elementary school	44	31.4
	Up to high school	76	54.3
	Up to higher education	20	14.3
Mental disorders*		73	52.1
Depressive disorder episode		53	37.8
Other anxiety disorders		28	20.0
Behavior and personality disorder		4	2.8
Phobic anxiety disorders		2	1.4
Schizophrenia		2	1.4
Feeding disorders		2	1.4
Bipolar affective disorder		1	0.7

Table 1 – Cont.

Age (years)	Mean±SD	Min-Max
	16.3 (+2.2)	10-19
	N	%
Continuous psychotropic drug use*	51	36.4
Antidepressive	27	19.3
Benzodiazepines	9	6.4
Antipsychotic	16	11.4
Mood stabilizers	3	2.1

*Adolescents could have more than one mental disorder registered and/or use more than one type of medicine.
Source: The authors.

Table 2 – Profile of the care provided to suicide attempts (N=140) São Paulo, SP, Brazil.

		N	%
Site of the attempt	Home	129	92.1
	External	11	7.8
Means used in the attempt	Drug intoxication	117	84.6
	Poison intoxication	13	9.3
	Intoxication using alcohol and other drugs	12	8.6
	Wounds by sharp objects	7	5.0
	Precipitation	3	2.1
	Hanging	1	0.7
	Trauma	1	0.7
Transport into the ER	Relative	102	72.8
	Health network	25	17.8
	Others	7	5.0
	Spontaneous search	6	4.3
Day the patient was attended	Weekdays	121	86.4
	Weekend	19	13.6
Time of day the patient was attended	Morning (7-12 am)	21	15.0
	Afternoon (13-18 pm)	51	36.4
	Night (19pm-06am)	68	48.6
Glasgow Coma Scale	Minor (13-15 points)	124	88.6
	Moderate (9-12 points)	12	8.6
	Severe (≤8 points)	4	2.8

Table 2 – Cont.

		N	%
Resources used during care*	Psychiatric evaluation	93	66.4
	Social services evaluation	48	34.3
	Emergency room	44	31.4
	CIATox	35	25.0
	Nursing ward	24	17.1
	ICU	14	10.0
Interventions used*	Stomach pump	41	29.3
	Activated carbon	28	20.0
	Drug antagonism	13	9.3
	Orotracheal intubation	4	2.8
	Vasoactive drugs	3	2.1
	Surgical sutures	2	1.4
Suicide attempt notification		40	28.5
		Mean±SD	Min-Max
Time in observation in the ER (hours)		14.2 (+30.6)	1-346
Time hospitalized in the ICU (hours)		90 (+122.8)	19-497
Time hospitalized in the nursing ward (hours)		30 (+27.8)	2-114

*Each adolescent can have been in more than one resource, and more than one intervention could be used in each situation. Note: others - friends, neighbors, teachers; CIATox - Center for Toxicological Information and Assistance; ICU - Intensive Care Unit.

Source: The authors.

An inferential analysis showed that drug intoxication was associated with females ($p<0.001$) and the use of continuous psychotropic medication ($p=0.01$). Poison intoxication was associated with adolescents who did not use continuous psychotropic drugs ($p=0.02$) and with ER being the resource used for attention ($p=0.01$). Males were associated with intoxication by alcohol and other drugs ($p<0.001$), wounds from sharp objects ($p<0.05$), and precipitation ($p=0.03$). The other associations did not show any statistical difference. Tables 3 and 4 present the results of associations between the mean used and the independent variables.

DISCUSSION

A high number of suicide attempts were attended in the ER. 52.1% of the adolescents had at least one previous diagnosis of mental health, in most cases, depressive disorder episodes (37.8%). This data corroborates literature, as people

with psychiatric disorders are a risk group, committing 3 to 12 times more suicide attempts⁽¹⁴⁾. It is noteworthy that 36.4% used continuous psychotropic drugs, that is, they were already being attended by a health network device. However, despite this articulation, a suicide attempt took place. In this context, we must consider the need to articulate medication therapies with other strategies for network support. This includes emotional support; crisis management; connection between care and territories, encouraging the creation of spaces for culture, art, sport, and socialization; and improvement of socioemotional abilities and competences⁽⁶⁾.

Most suicide attempts took place at the person's home, on weekdays, and they arrived at the ER during the day (that is, in the morning or afternoon). This can be due to the lack of family supervision in this period, since many people are at work and adolescents are alone at home, which can increase the feeling of solitude and make them choose suicide as a way to stop their suffering⁽⁴⁾.

Family was the main responsible for taking the adolescents into health services, and thus, it is necessary to consider the impact of the suicide attempt of a loved one. There may be cases in which the family does not know the mental health issues of the teenagers, which makes it necessary to consider their needs, experiences, and train that family to provide care after the attempt. There are also cases in which relatives can have knowledge but have a weak bond with the adolescent. Strategies to aid in the reorganization of this context are of the essence, since, later, the family will be responsible for the articulation between the adolescent and the RAPS^(1,9,15).

Professionals can start working with the family in the ER itself, regardless of a pre-existing bond with the child, since the family will have complex emotional reactions such as guilt, anger, fear, and these can lead them to take certain actions during care, such as punishments and hypervigilance. Approaching the family after the adolescent is clinically stable can allow relatives to understand the phenomenon, debunking stigmas and empowering them to care for their children⁽¹⁵⁾.

A piece of data that stands out is the fact that 4.3% of adolescents sought the service by choice, alone or with a friend. This finding can suggest that the main goal of the suicide attempt was not necessarily to end one's own life, but to end one's suffering, which leads to regret. A Brazilian qualitative study, carried out with 10 teenagers who attempted suicide, showed that seven of them attempted suicide as a way to end their suffering and suicidal ideation⁽⁴⁾, corroborating this discussion. Empowering adolescents to deal with their mental health is an intervention suggested by the WHO⁽⁶⁾, and the fact they recognize the ER as a place where they can get treatment may be a positive predictor in this process.

The most common methods used to attempt suicide were exogenous intoxications, especially using medicines. This was prevalent in female adolescents ($p < 0.001$), corroborating literature⁽¹⁴⁾. Furthermore, the main medications used by the adolescents to do so were continuous use drugs, such as the psychotropic ones, since the adolescent has easy access to them⁽¹⁶⁾. In the present study, this method has been associated with the use of continuous psychotropic medication ($p = 0.01$), corroborating our findings.

In this context, one can reflect on the medicalization of mental health care, considering the high prevalence of exogenous intoxication and psychotropic continuous medication by these adolescents. The use of psychotropic medications is a common intervention in health workers⁽¹⁷⁾. Nonetheless, this study questions whether they are actually producing the expected effects and/or whether they are leading to more suffering. Once again, an integral approach

is necessary, associating different therapeutic models for mental health care⁽⁶⁾.

The second most common was intoxication by poison (9.3%), which were associated with no use of continuous psychotropic drugs ($p = 0.02$). International literature estimates that 3 out of every 14 adults who commit suicide do so using poison, such as organophosphates^(5,16). There was no association of this type of poison and continuous psychotropic drug use. We believe this may take place due to the fact that, with no easily accessible medication, they resort to poison, especially carbamate, a pesticide often present in Brazilian homes. Later research should dive deeper into this method of suicide attempt.

There are also intoxications using alcohol and other drugs, found in 8.6% of cases. Literature suggests that nearly 50% of suicides involve the use of psychoactive substances, with a higher risk among males who use these drugs daily⁽¹⁸⁾. The same association was found in this study ($p < 0.001$). An investigation suggested that, after suicide attempts that used this method, the ingestion of these substances increases⁽¹⁹⁾, and it becomes increasingly important to reflect on damage control strategies.

In the case of exogenous intoxications, it is possible to contact the Centers of Toxicological Information and Attention (CIATox), which happened in 25% of cases. This resource is noteworthy as it is an essential support to ER care. Its goal is to provide information, give advice regarding preventive measures, diagnoses, prognoses, and treatment, providing constant attention remotely or in person. Nonetheless, despite its potential, not all Brazilian states have this device in their network, and its coverage is thus insufficient⁽¹²⁾. Encouraging its use in future implementation studies is extremely important.

Another issue is that different methods can be combined in a suicide attempt, increasing their lethality and leading to worse clinical prognoses⁽¹⁸⁾, as is the case when psychoactive substances are combined with aggressive methods (hanging, precipitation, trauma). As this study shows, these methods are associated with males, information corroborated by international literature^(1,7,14).

Depending on the method, the adolescent will need emergency care, as seen in 31.4% of cases. The goal of this type of care is to reduce the systemic repercussions of the method used and stabilize their clinical state. In this case, interventions may be needed, such as orotracheal intubations, stomach pumps, activated carbon, and antidotes (Table 2), depending on the methods used^(14,16,20). A practical example of the use of the emergency room is in the cases of poisoning, as seen in the present study ($p = 0.01$). This is especially true in cases of organophosphate poisoning, which decreases the

Table 3 – Association of adolescent profile and the mean used in the suicide attempt (N=140). São Paulo, SP, Brazil.

Variables	Drug intoxication	P	Poison intoxication	P	Intoxication using alcohol and other drugs	P	Wounds by sharp objects	p	Precipitation	P
Sex										
Female	103 (91.1%)	<0.6	8 (7.1%)	0.066	4 (3.5%)	<0.6	3 (2.6%)	0.009	0.06 (0.8)	0.035
Male	14 (51.8%)		5 (18.5%)		8 (29.6%)		4 (14.8%)		2 (7.4%)	
Color										
White	95 (84.1%)	0.744	10 (8.8%)	0.716	9 (7.9%)	0.6	5 (4.4%)	0.523	3 (2.6%)	0.392
Non-white	22 (81.5%)		3 (11.1%)		3 (11.1%)		2 (7.4%)		0 (0)	
Age										
10-14 years	30 (85.7%)	0.693	2 (5.7%)	0.401	3 (8.5%)	1.0	0 (0)	0.117	1 (2.8%)	0.736
15-19 years	87 (83.8%)		11 (10.5%)		9 (8.6%)		7 (6.6%)		2 (1.9%)	
Educational level										
Up to EC	38 (86.3%)	0.779	3 (6.8%)	0.156	3 (6.8%)	0.876	0 (0)	0.152	1 (2.3%)	0.597
Up to HS	62 (81.9%)		10 (13.1%)		7 (9.2%)		5 (6.6%)		1 (1.3%)	
Up to HE	17 (85.0%)		0 (0)		2 (10.0%)		2 (10.0%)		1 (5.0%)	
Mental disorders										
Yes	65 (89.0%)	0.068	4 (5.5%)	0.105	7 (9.6%)	0.653	4 (5.5%)	0.786	1 (1.8%)	0.510
No	52 (77.6%)		9 (13.4%)		5 (7.4%)		3 (4.9%)		2 (2.9%)	
Continuous psychotropic medication										
Yes	48 (94.1%)	0.011	1 (1.9%)	0.024	3 (5.8%)	0.39	3 (5.8%)	0.717	0 (0)	0.185
No	69 (77.5%)		12 (13.9%)		9 (10.1%)		4 (4.5%)		3 (3.8%)	

Source: The authors.

Table 4 – Association of the attention provided and the mean used in the suicide attempt (N=140). São Paulo, SP, Brazil.

Variables	Drug intoxication	P	Poison intoxication	P	Intoxication using alcohol and other drugs	P	Wounds by sharp objects	P	Precipitation	P
Psychiatric evaluation										
Yes	78 (83.8%)	0.893	8 (8.6%)	0.695	7 (7.5%)	0.535	5 (5.4%)	0.774	2 (2.1%)	0.993
No	39 (82.9%)		5 (10.6%)		5 (10.6%)		2 (4.2%)		1 (2.1%)	
Social services evaluation										
Yes	39 (81.2%)	0.592	5 (10.4%)	0.739	2 (4.2%)	0.179	1 (2.1%)	0.253	2 (4.2%)	0.232
No	78 (84.8%)		8 (8.7%)		10 (10.8%)		6 (6.5%)		1 (1.1%)	
Emergency room										
Yes	35 (79.5%)	0.384	8 (18.2%)	0.014	1 (2.3%)	0.071	2 (4.5%)	0.867	0 (0)	0.236
No	82 (85.4%)		5 (5.2%)		11 (11.4%)		5 (5.2%)		3 (3.1%)	
Centers of Toxicological Information and Assistance										
Yes	31 (88.6%)	0.357	3 (8.6%)	0.866	2 (5.7%)	0.486	0 (0)	0.117	0 (0)	0.312
No	86 (81.9%)		10 (9.5%)		10 (9.5%)		7 (6.7)		3 (2.8%)	
Nursing ward hospitalization										
Yes	20 (83.3%)	0.972	2 (8.3%)	0.860	2 (8.3%)	0.963	1 (4.2%)	0.837	1 (4.2%)	0.452
No	97 (83.6%)		11 (9.5%)		10 (8.6%)		6 (5.2%)		2 (1.7%)	
Intensive care unit hospitalization										
Yes	12 (85.7%)	0.820	2 (14.3%)	0.497	1 (7.1%)	0.840	0 (0)	0.366	0 (0)	0.559
No	105 (83.3%)		11 (8.7%)		11 (8.7%)		7 (5.5%)		3 (2.4%)	

Source: The authors.

level of consciousness, provokes cardiovascular and muscle alterations, and has a therapeutic window of nearly three days, potentially requiring ICU admission⁽¹⁶⁾ so vasoactive drugs, for example, can be used.

Literature estimates that exogenous intoxications represent from 2.3 to 13.7% of all ICU admissions, with 4% of patients having a high level of deaths in the first days of hospitalization^(5,16,20). A retrospective study carried out in Germany with 1,009 adults that were attended after suicide attempts through poisoning found that 5.6% of them were serious cases, with low scores in the Glasgow Coma Scale, psychoactive substance use, and longer hospitalizations⁽¹⁶⁾. In these cases, aggressive methods may be necessary to remove toxins, such as hemodialysis⁽²⁰⁾. Future research should ascertain what are the characteristics of ICU care.

The work of the nursing team, especially that of the nurse, stands out regarding the care provided to these patients. This study found that adolescents spent a mean of 14 hours in the ER. This period can allow nurses to receive them with care. A Brazilian qualitative study showed that ER nurses did not feel ready to carry out mental health interventions⁽²¹⁾. Nevertheless, this context must be reconsidered, and soft technologies of care, such as welcoming/embracing, must be recognized as a work instrument of the ER nurses, who are empowered by its use.

A methodological study, which constructed and validated directives for care to child and adolescent suicide attempts in ER, suggested that welcoming is a key-strategy to start mental health care. It should be carried out readily, with quality, in a private room, through active listening, no need for giving advice or speaking, with an empathetic posture that can minimize emotional pain. The patient should be welcomed from the moment they start receiving attention in the ER, expressions that reiterate stigmas and guilt should be avoided, and it can be perfected in medical histories and posterior clinical care⁽²²⁾. Nurses spend most of their time in assistance close to the adolescents, and should be empowered by these interventions, helping the adolescents recognize health services as a place of care.

The multiprofessional team should also embrace the adolescent. A psychiatric evaluation is essential to recognize the risk of new attempts and the beginning of specialized conducts⁽¹⁴⁾. In this study, only 66.4% underwent this type of evaluation. This prevalence may be associated to the fact that, in the ER of this study, the adolescent must be sent to

another service, so the evaluation is carried out. Another vital professional is the social worker, who can help articulate a contact with the adolescent's territory by requestion RAPS services to provide longitudinal care⁽¹⁴⁾. Nonetheless, despite the fact these evaluations are available in the institution, only 34.3% received them.

After the clinical state is stabilized, a member of the team is expected to notify the self-provoked harm. This notification is mandatory and must be made up to 24 hours after surgery. This notification allows the health care network to be activated and increases the epidemiological visibility of the issue, guiding the formulation of public policies^(3,23). This study showed that notification forms are only filled in 28.5% of cases, and it is paramount to understand the reasons for this low notification. One of the hypotheses involves the negative attitudes of professionals regarding suicide attempts.

Although there have been advancements regarding a transition from hospital-centric, excluding, biomedical care into a model where mental health is seen in a broader, more individualized manner, promoting free care. A Brazilian study with 13 interdisciplinary team members of an ER showed there are countless beliefs regarding care to adolescents who attempt suicide. Professionals associated the event with attempts to get attention, providing care as it is an obligation, and considering that although the service is made to protect life, its attending a person who attacked it⁽²¹⁾. These beliefs can make the topic more invisible, decreasing notifications. Future research is recommended to train professionals in this regard^(21,22).

The RAPS should give special attention to adolescents who attempted suicide. It is well known that a previous suicide attempt is the main risk factor for future attempts, with estimates indicating that nearly 7% make another attempt after the first one, and 24% try again after a second attempt^(7,14). The ER is an essential part of the RAPS, but it must articulate with other services, especially primary and secondary care, so health care in the territory should continue through the provision of preventive actions⁽¹⁾. This requires clinical surveillance, mitigating risk factors and enhancing protective ones, intervening with the family, and improving the perception of the adolescent and their family about the health services as allies in health promotion^(3,24). ER professionals are expected to provide attention for clinical stabilization, welcome patients with no judgment, notify cases, and articulate with the adolescents in the RAPS.

Limitations of this study include the fact it took place in a single health service, its dependence on the records made by health workers, and the potential undernotification of suicide attempts. However, its data is important to improve the practice of health workers, integrating them with current indicators to advance literature about suicidal behavior, giving visibility to a seldom explored topic. The role of the nurse in the attention should be highlighted, as their activity in different stages of the vital cycle and in different RAPS devices make them agents of change that can help qualify assistance⁽²⁵⁾.

CONCLUSION

Of the 140 records of teenager suicide attempts analyzed, most involved exogenous intoxication, such as medication, in weekdays, at night. Females usually attempted suicide by intoxication with their medication, while males used alcohol and other drugs, sharp objects, and precipitation. The continuous use of psychotropic medication was associated with intoxication via medication; patients who did not use psychotropic medication were associated with poisoning; and ER care was associated with poisoning cases. This profile of attention is expected to help professionals structure actions plans to improve clinical care, welcoming in mental health, and preventive and welcoming strategies after suicide attempts.

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