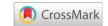


**Research Article** 

#### Open Access



# Assistance of emergency and urgent care services to people attempting suicide: integrative review

#### Abstract

The study aimed to analyze the evidence available in the literature on the assistance provided by the Urgent and Emergency Service to people attempting suicide. This is an integrative review carried out between February and June 2023 in the databases Latin American and Caribbean Literature in Health Sciences (LILACS), National Library of Medicine National Institutes of Health (PubMed) and Scientific Electronic Library Online (Scielo), using controlled and uncontrolled descriptors. Articles were included in full and available free of charge, which were in accordance with the proposed theme and objective, published in Portuguese, English or Spanish, between 2019 and 2023. It was shown that the number of suicide attempts increases over the years. The profile of patients with suicide attempts treated in urgency and emergency units depends on each location. In some units the majority are men and in others the majority are women, both young. Women use exogenous intoxication or poisoning as a trial method and men use hanging or sharp objects. The importance of the multidisciplinary and nursing team in welcoming and caring for these patients and preventing repetitive suicide attempts was observed. Underreporting of cases is still present, as well as the lack of professional qualifications and the use of care tools or protocols. It is believed that this study can contribute to improving the qualification of professionals by training institutions in serving this clientele, as well as contributing to the adoption of tools, instruments and care protocols, both by hospital institutions and by public policies, to reflect on improving the quality of care provided to patients attempting suicide.

Keywords: suicide, suicide attempt, nursing, emergency services, health care.

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#### Introduction

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), mental disorders are characterized by clinically significant disturbances in cognition, emotion regulation, or behavior, reflecting dysfunctions in psychological, biological, or developmental processes.<sup>1</sup> Among these disorders, depression stands out as a global problem, affecting around 280 million people. Unlike sadness, which is a natural and temporary response to everyday challenges, depression can become chronic and pose a serious risk to health, even leading to suicide.<sup>2</sup>

The social impact of depression is significant, with suicide being one of the possible consequences in persistent cases. More than 700,000 people die by suicide annually, with a high incidence among young people aged 15 to 29.3 In Brazil, the 2019 National Health Survey revealed that 10.2% of the adult population was diagnosed with depression, an increase compared to the 7.6% recorded in 2013.4 The Vigitel Survey reinforces this scenario, indicating that 11.3% of Brazilians were diagnosed with depression in 2022, with a higher prevalence among women (14.7%).5 With the arrival of COVID-19 in 2020, there was an increase in mental suffering due to social distancing, which aggravated pre-existing mental disorders and increased the risk of suicide.6 Social distancing, combined with factors such as depression and other disorders, has increased suicide attempts, a psychiatric emergency that requires immediate intervention to prevent death or serious injury.7 In addition to suicide, non-suicidal self-harm (NSS) also deserves attention, being defined as any intentional injury without a conscious desire to die, but which can be a precursor to future suicide attempts.8 The practice of self-harm desensitizes the person to pain and fear, increasing the likelihood of suicidal behavior.9 In Brazil, self-inflicted violence is a growing

problem, especially among young people aged 15 to 29, being more common among women.<sup>10</sup> The response of the Mobile Emergency Care Service (SAMU) is crucial to deal with these situations. Created in 2004, SAMU provides pre-hospital care and refers cases to health services. With the increase in cases of depression and anxiety, there was a greater demand for care related to suicidal and self-harm behavior in the post-pandemic context.<sup>11</sup> However, the preparation of professionals to deal with these emergencies is still insufficient, especially compared to the preparation to respond to clinical or traumatic emergencies.

The assistance provided by SAMU is vital, as rapid response can significantly increase the chances of survival. The emergency control center, operating via telephone 192, begins intervention even before the vehicle arrives, further increasing the chances of an effective response.<sup>12</sup> Given this scenario, this study asks: how does SAMU provide assistance to people attempting suicide? The research seeks to synthesize the available knowledge, identifying gaps and contributing to more humanized and qualified assistance. The motivation for this study stems from the relevance of the topic, given the increasing incidence of suicide, a major public health problem. Prompt and appropriate care in cases of suicide attempts can be decisive in ensuring survival and minimizing harm. This study aims to improve the technical and scientific knowledge of health professionals, encouraging clinical practice based on evidence and focused on professional integrity and ethics, especially in the context of the increase in suicide rates in recent years. Thus, the objective is to analyze the available evidence on the assistance provided by SAMU to people attempting suicide, contributing to more effective and humanized care.

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#### Method

This study is characterized as an integrative literature review. This research method aims to promote a search, synthesize and gather information on the topic investigated, in a systematic, orderly and comprehensive manner, ensuring theoretical knowledge from different perspectives, facilitating its application in clinical practice and in directing future research.<sup>13</sup> The study was carried out in six distinct stages, according to Mendes, Silveira and Galvão, namely:

# Stage I identifying the topic and defining the guiding question

The guiding question that led to the present study was developed using the PICo strategy, which uses an acronym involving the problem, interest and context aspects, proposed by Melnyk and Fineout-Overholt,<sup>14</sup> as shown in Table 1 and thus, the composition of the guiding question was: "*What evidence is available in the literature on the assistance provided by the Emergency and Urgent Care Service team to people attempting suicide*?

the MeSH Terms were used, for LILACS the deCS and for Scielo the Subject Headings. The descriptors above were combined with Boolean operators (AND and OR). The search strategy performed in each database is described in Table 3. Articles published in full and 
 Table I PICo strategy for formulating the research question, Alfenas-MG, 2022

Abbreviation	Description	Components of the question
Р	Population People with suicidal attem	
1	Interest	Team assistance
Co	Context	Urgent and Emergency Service

Source Melnyk and Fineout-Overholt (2019).

#### Stage 2 establishment of criteria for inclusion and exclusion of studies/sampling or literature search

The research was carried out between February and June 2023 in the following electronic databases, Latin American and Caribbean Literature in Health Sciences (LILACS), National Library of Medicine National Institutes of Health (PubMed) and Scientific Electronic Library Online (Scielo), using controlled and uncontrolled descriptors, as shown in Table 2. The search strategy was adapted for each database according to its vocabulary, thus for Pubmed available free of charge, in accordance with the proposed theme and objective, published in Portuguese, English or Spanish were included. The time frame was the last five years, from 2019 to 2023.

Table 2 Controlled and uncontrolled descriptors used in the databases, Alfenas-MG, 2022

Databases	Controlled descriptors	Uncontrolled descriptors
LILACS (DeCS)	"Suicide"	"Suicides"
	"Suicide"	
	"Suicide"	
	"Suicide Attempt"	"Parasuicide"
	"Suicide, Attempted"	"Parasuicides"
	"Suicide Attempt"	
	"Emergency Medical Services"	"Pre-Hospital Care"
	"Emergency Medical Services"	"Pre-Hospital Emergency Care"
	"Emergency Medical Services"	"SAMU"
		"Emergency Care Services"
		"Emergency Health Services"
PubMed (MeSH)	"Suicide"	"Suicides"
	"Suicide, Attempted"	"Attempted Suicide"
		"Suicide Attempt"
		"Attempt, Suicide"
		"Parasuicide"
		"Parasuicides"
	"Emergency Medical Services"	"Emergency Services, Medical"
		"Emergency Service, Medical"
		"Medical Emergency Service"
		"Medical Emergency Services"
		"Service, Medical Emergency"
		"Services, Medical Emergency"
		"Medical Services, Emergency"
		"Medical Service, Emergency"
		"Service, Emergency Medical"
		"Services, Emergency Medical"
		"Prehospital Emergency Care"
		"Emergency Care, Prehospital"
		"Emergency Health Services"
		"Emergency Health Service"

Table 2 Continued..

Databases	Controlled descriptors	Uncontrolled descriptors
	•	"Health Service, Emergency"
		"Health Services, Emergency"
		"Service, Emergency Health"
		"Services, Emergency Health
SCIELO	"Suicide"	"Suicide, Attempted"
		"Suicidal Ideation"
	"Emergency Medical Services"	"Emergency Medical Service"
		"Emergency Service"

Source Author (2023).

Table 3 Search strategies employed in the databases used, Alfenas-MG, 2022

Database	Search strategies
LILACS	("Suicide" OR "Suicide" OR "Suicides") AND ("Suicide Attempt" OR "Suicide, Attempted" OR "Suicide Intent" OR "Parasuicide" OR "Parasuicides") AND ( "Emergency Medical Services" OR "Emergency Medical Services" OR "Pre-Hospital Care" OR "Pre-Hospital Emergency Care" OR "Emergency Care Services" OR "Emergency Health Services")
PubMed	("Suicide" OR "Suicides") AND ("Suicide, Attempted" OR "Attempted Suicide" OR "Suicide Attempt" OR "Attempt, Suicide" OR "Parasuicide" OR "Parasuicides") AND ("Emergency Medical Services" OR "Emergency Services, Medical" OR "Emergency Service, Medical" OR "Medical Emergency Service" OR "Medical Emergency Services" OR "Service, Medical Emergency" OR "Services, Medical Emergency" OR "Medical Services, Emergency" OR "Medical Service, Emergency" OR "Service, Emergency Medical" OR "Services, Emergency Medical" OR "Prehospital Emergency Care" OR "Emergency Care, Prehospital" OR "Emergency Health Service, Emergency" OR "Health Services, Emergency" OR "Service, Emergency Medich Services, Emergency" OR "Service, Emergency Health Services, Emergency" OR "Service, Emergency Health" OR "Services, Emergency Health" OR "Services, Emergency Health")
SCIELO	("Suicide" OR "Suicide, Attempted" OR "Suicidal Ideation") AND ("Emergency Medical Services" OR "Emergency Medical Service" OR "Emergency Service")

Source Author (2023).

Excluded studies were publication types such as editorials, dissertations, theses, case studies, conference abstracts, book chapters, and letters to the editor, manuals, books, commentaries, and the like. Once identified, all articles were exported to the Rayyan® QCRI program and duplicate articles were removed. This application optimizes the work of literature reviews, which identifies the title, abstract and publication date of texts loaded from the databases for the researcher to analyze. Thus, it allows the inclusion or exclusion of each text, with the possibility of including the justification, which makes the filtering of articles organized and valid for later analysis.15 After this stage, the title and abstract of the publications were read independently by two reviewers, considering the defined inclusion and exclusion criteria, and a third reviewer was called in the case of a tiebreaker of studies included by only one reviewer. Next, the publications were read in full, again paying attention to the inclusion and exclusion criteria. This step helped extract information from the publications.

Table 4 Information extracted from selected studies, Alfenas-MG, 2022

Title	
Author(s)	
Periodical	
Year of publication	
Language and count	ry
Type of study	
Objective	
Sampling design	
Methodological des	gn
Methodological qua	lity
Main Results	
Level of evidence	

Source MELNYK; FINEOUT-OVERHOLT (2019).

#### Stage 3 defining the information to be extracted from the selected studies/ categorization of the studies

After selecting the studies, an instrument was used to extract and analyze the main information from the data of the included studies, consisting of the following items: (1)Title (2)Author(s) (3)Journal (4)Year of Publication (5)Language and country (6)Type of study (7)Objective (8)Sampling Design (9)Methodological Design (10) Main results and (11)Level of evidence.<sup>14</sup> The steps of extraction and analysis of the results of the primary studies were carried out by two reviewers independently.

# Stage 4 Evaluation of studies included in the integrative review

### a) Assessment of the methodological quality of the included studies

To assess the methodological quality of the quantitative primary studies Table 5 included in the review, the *Guideline Critical Review Form for Quantitative Studies tool*, developed by the *McMaster University Occupational Therapy Evidence-Based Practice Research Group*, was used, containing nine topics to be evaluated. Each topic answered affirmatively corresponds to an increase in the quality and methodological rigor of the research.<sup>16, 17</sup> Qualitative articles The selected articles were evaluated according to the RATS guidelines for qualitative research review.<sup>18</sup> These are composed of four sets of items summarized here: (I) R –justified relevance of the issue under study; (II) A –adequacy of the qualitative methodology; (III) T – transparency of procedures; and (IV) S –solidity in the comprehensive and interpretative approach. Based on these, Taquette and Minayo

(2016) created a scoring table with 15 items described in Table 6, in an attempt to standardize and reduce the subjectivity of the evaluation, classifying them into three categories:

- a) Consistent, when they sufficiently meet 12 to 15 items
- b) Partially analyzed, only descriptive or not very consistent, when there is no methodological transparency or the interpretations are insufficient, meeting 8 to 11 items; and
- c) Inconsistent or not analyzed, when they meet seven or fewer items.

 Table 5 Assessment of the methodological quality of quantitative primary studies

Critical review of quantitative studies		Ν	S	NI	IN
Bibliographic Reference	Is the article reference complete, with full title, all authors' names (surname, initials), and full name of the journal, year, volume and pages?				
Objective	Was the objective clear?				
Literature	Has a review of the relevant literature on this topic been carried out?				
Design	Describes the design (RCT/cohort/single case/before and after/case-control/cross-sectional/case study/longitudinal)				
Sample	Sample described in detail				
	Justification for sample size presented				
Outcomes	Reliable outcome measures				
	Valid outcome measures				
Intervention	Intervention described in detail				
Results	Results reported in terms of statistical significance				
	Suitable analysis methods				
	Clinical significance has been reported				
	Report of participants who dropped out of the study				
Conclusions and clinical implications	Conclusions consistent with the methods and results obtained				

Source LAW et al. (1998); PARAIZO-HORVATH et al. (2022).

Legend N, no;Y, yes; NI, not informed; NA, not applicable.

Table 6 Assessment of the methodological quality of qualitative studies, according to RATS guidelines

R	Justified relevance of the study question	3 points
I	clear definition of the object and objective under study	
2	consistent theoretical framework with assumptions	
3	relevant object of study	
THE	Adequacy of qualitative methodology	3 points
4	chosen method justified	
5	Appropriate instruments used including script items	
6	explicit inclusion criteria	
Т	Transparency of procedures	4 points
7	study scenario/field entry strategy	
8	description of how data collection/sampling took place	
9	description of how data collection was recorded	
10	ethical aspects (including the role of the researcher)	
S	Soundness of the interpretative approach	5 points
11	appropriate analysis, how the analyzed material was decomposed	
12	historical-spatial-social contextualization	
13	clear interpretations, supported by evidence and in dialogue with updated literature	
14	limitations described	
15	well written text, without jargon	
	TOTAL	15 points

#### Source TAQUETTE; MINAYO (2016).

To assess the methodological quality of mixed studies, the *Mixed Methods Appraisal Tool* (MMTA) was used, which has five questions to assess the method, and with each positive response the quality of the method increases.<sup>19</sup> The MMAT was developed in 2006 by researchers from Canada (McGill University, Department of Family Medicine) and the United Kingdom, linked to faculties/departments in the health area,

including nursing. It was reformulated and updated after a literature review and critical analysis carried out by experts, using the Delphi technique.<sup>20</sup> This is a checklist Table 7 that includes two screening

questions and 19 items corresponding to five methodological domains: qualitative research, randomized clinical trials, non-randomized studies, descriptive quantitative studies and mixed methods studies.<sup>21</sup>

Table 7 Assessment of the methodological quality of mixed studies: Mixed Methods Appraisal Tool (MMTA)

Types of Components for Mixed Method	Methodological Quality Criteria	Answers	Comments
Studies or Primary Studies		Yes No Undefined	
Screening (Questions)	<ul> <li>Are there clear qualitative and quantitative research questions (or objectives*) or a clear mixed methods question (or objective*)?</li> <li>Is it possible that the data collected could answer the research questions (objective)? For example,</li> </ul>		
For all types	consider whether the follow-up period was long enough for the outcome to occur (for longitudinal studies or study components).		
The following questions are not appropriate to answer when the answers are "No" or "Undefined" to one or both of the screening questions.			
I. Qualitative	I.I.Are the qualitative data sources (files, documents, informants, observations) relevant to answering the research question (objective)?		
	<ul> <li>I.2. Is the qualitative data analysis process relevant to answering the research question (objective)?</li> <li>I.3. Is due consideration given to the relationship between the results and the context, i.e. the environment or context in which the data were</li> </ul>		
	collected? I.4. Is appropriate consideration given to the relationship between the results and the influence of researchers, for example through their interactions with participants?		
2. Quantitative randomized controlled trial (trial)	<ul><li>2.1. Is there a clear description of the randomization (or appropriate random selection)?</li><li>2.2. Is there a clear description of allocation secrecy (or "masking" where applicable)?</li></ul>		
	2.3.Are there complete results data (80% or more)? 2.4. Is there a low dropout/attrition rate (less than 20%)?		
3. Non-Randomized Quantitative	3.1.Are participants (organizations) selected in a way that avoids selection bias?		
	3.2. Regarding exposure/intervention and outcomes, are the measures appropriate (clear source, known validity or standard of the instrument; and no contamination between groups, where appropriate)?		
	3.3. In the groups being compared (exposed versus unexposed; with interventions versus without interventions; cases versus controls), are the		
	participants comparable? Or do the researchers also take into account (control) the difference between these groups?		
	3.4. Are outcome data complete (80% or greater) and, where applicable, is there an acceptable response rate (60% or greater) or an acceptable follow-up rate for cohort studies (depending on the duration of follow- up)?		
4. Quantitative Description	<ul> <li>4.1. Is the sampling strategy relevant to answering the quantitative research question (quantitative aspect of the mixed method research question)?</li> <li>4.2. Is the sample of the study population representative?</li> <li>4.3. Are the chosen measures appropriate (clear</li> </ul>		
	<ul><li>4.4. Is there an acceptable response rate (60% or more)?</li></ul>		

#### Table 7 Continued..

Types of Components for Mixed Method	Methodological Quality Criteria	Answers	Comments
5. Mixed Methods	5.1. Is the mixed method research design relevant to answering both qualitative and quantitative (or objective) research questions, and both qualitative and quantitative aspects of the mixed method (objective) question?		
	5.2. Is the integration of qualitative and quantitative data (or results*) to answer the research question (objective) relevant?		
	5.3 Are the limitations associated with this integration adequately considered? For example, the divergence of qualitative and quantitative data (or results) in a triangulation strategy		

(2.1 to 2.4, or 3.1 to 3.4, or 4.1 to 4.4) must be answered.

#### Source SOUTO et al. (2020).

#### b) Assessment of the level of evidence of the included studies

To assess and identify the level of evidence of the studies, the classification of evidence proposed by was used, which determines the level of evidence according to the clinical question used in each study.

The hierarchical classification of evidence is carried out in levels. In this sense, the higher the evidence is represented in the pyramid, the greater the impact of this intervention on the desired health effect.<sup>14</sup> The ranking system of the hierarchy of strength of evidence to answer each type of question was described in Tables 8–10.

Table 8 Classification of the hierarchy of strength of evidence for clinical questions of Intervention/Treatment or Diagnosis/DiagnosticTest, proposed by Melnyk and Fineout-Overholt (2019)

Intervention/Treatment or Diagnosis/Diagnostic test	
Level of evidence	Strength of evidence
I	Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials
II	Evidence from well-designed randomized controlled trials
III	Evidence from well-designed non-randomized clinical trials
IV	Evidence from well-designed case-control and cohort studies
V	Evidence from systematic reviews of descriptive and qualitative studies
VI	Evidence from single descriptive or qualitative studies
VII	Evidence of opinion from authorities and/or reports from expert committees

Source MELNYK; FINEOUT-OVERHOLT (2019).

Table 9 Classification of the hierarchy of strength of evidence for clinical questions of Prognosis/Prediction or Etiology, proposed by Melnyk and Fineout-Overholt (2019)

Prognosis/Prediction or Etiology	
Level of evidence Strength of evidence	
I	Evidence from synthesis of cohort studies or case-control studies
II	Evidence from single cohort study or case-control studies
III	Evidence from meta-synthesis of qualitative or descriptive studies
IV	Evidence from single qualitative or descriptive studies
V	Expert opinion evidence

Source MELNYK; FINEOUT-OVERHOLT (2019).

 Table 10 Classification of the hierarchy of strength of evidence for clinical questions of Significance, proposed by Melnyk and Fineout-Overholt (2019)

 Source MELNYK; FINEOUT-OVERHOLT (2019).

Meaning		
Level of evidence	Strength of evidence	
I	Evidence from meta-synthesis of qualitative studies	
II	Evidence from single qualitative studies	
III	Evidence from synthesis of descriptive studies	
IV	Evidence from single descriptive studies	
V	Expert opinion evidence	

Source of information	Articles found	Articles deleted	Included articles
Pubmed	229	225	4
Lilacs	11	9	2
Scielo	12	10	2
BEDENF	26	25	I
Medline	10	9	I
Total Sample			10

**Table A** Articles selected from the databases

Source Author (2023).

#### **Step 5 interpretation of results**

To interpret the results, a summary table of the studies included in this review was formulated Table 11, which will be presented in the results and discussion section. The information presented concerns the year of publication, country, method, objective, main results, and quality methodological and level of evidence.

Table 11 Summary table of the studies included to compose the final sample of this integrative review

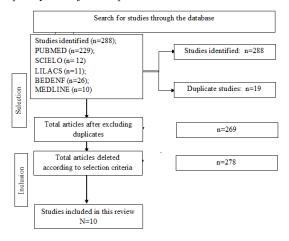
#### Stage 6 presentation of the review/ synthesis of knowledge

The presentation of the review/synthesis of knowledge was carried out in a descriptive manner, with the aim of enabling the reader to evaluate the applicability of the assistance provided by the emergency and urgency service team to people attempting suicide, to contribute to the care of these people.

#### **Results and discussion**

Suicide is a major public health problem that can affect the entire population, regardless of social class. There has been a significant increase in the number of suicides in Brazil, which makes us wonder how to accommodate these clients in the hospital setting, which is the gateway for these specific cases. A total of 288 articles were identified in the literature in the following databases: LILACS: 11 articles, Pubmed: 229 articles, Scielo: 12 articles, BDENF 26 articles, Medline 10 articles, which were selected according to the exact descriptors. After careful reading, 10 articles that met the inclusion criteria of the research were included in the research, from the period 2018-2023. Of According to Figure 1, the flowchart for selecting primary studies included in this review is shown, adapted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) model. In this, it is shown that, after crossing the keywords, it was found that 229 articles were found in the Pubmed database, with 4 articles that answered the guiding question and met the proposed objectives. In the Lilacs database, 11 articles were selected and 2 articles were included; Scielo, 12 articles were found, with 2 included for this research; BDENF 26 articles, 1 selected; and finally Medline 10, with only 1 article included. After analyzing all

the articles, the total sample was 10 articles. Immediately after Figure 1, there is a summary table (Table 11) presenting the sample of the 10 articles included in the study that answered the guiding question and consequently the objectives presented.



**Figure 1** Flowchart of selection of primary studies included in this integrative review (n=10), adapted according to the preferred reporting items for systematic reviews and meta-analyses (Prisma) Model (Mother; Liberati; Tetzlaff;Altman; Prisma, 2009). Alfenas, Mg, Brazil, 2023.

Table 11 shows an overview of the selected articles that answered the guiding question as well as the proposed objectives. The integrative review analyzed 10 studies that identified care in emergency units for clients attempting suicide. Regarding the types of study, it was observed that n=3 (30%) were of the qualitative type and n=7 (70%) were of the quantitative type. According to the year of publication, n=5 (50%) are from the year 2023 and the rest from the years 2019 to 2021; the majority in Portuguese, carried out in Brazil n=6 (60%) and the rest in English n=4 (40%) carried out in the USA, Nepal, Japan and Korea. Tables 12 and 13 represent the assessment of the methodological quality of the quantitative and qualitative studies, respectively. Table 14 presents a summary of the articles included in the review with the following data: year of publication, country, method, objective, main results, methodological quality and level of evidence.

Table 12 Assessment of the methodological quality of quantitative studies, Alfenas-MG, Brazil, 2023

Critical review of quantitative study					
ALVES et al (2019) BAS al (2013)	TOS et al (2021) FOGAÇA et al (2023) BRENT et al (2023) JHA et al (2023) OTONI et al (2023) L	EE et			
Bibliographic Reference	Is the article reference complete, with full title, all authors' names (surname, initials), and full name of the journal, year, volume and pages?	S			
Objective	Was the objective clear?	S			
Literature	Has a review of the relevant literature on this topic been carried out?	S			

#### Table 12 Continued..

Critical review of quanti	Critical review of quantitative study				
ALVES et al (2019) BASTOS et al (2021) FOGAÇA et al (2023) BRENT et al (2023) JHA et al (2023) OTONI et al (2023) LEE et al (2013)					
Sample	Sample described in detail	S			
	Justification for sample size presented	S			
Outcomes	Reliable outcome measures	S			
	Valid outcome measures	S			
Intervention	Intervention described in detail	S			
Results	Results reported in terms of statistical significance	S			
	Suitable analysis methods	S			
	Clinical significance has been reported	S			
	Report of participants who dropped out of the study	Ν			
Conclusions and clinical implications	Conclusions consistent with the methods and results obtained	S			

Source Author (2023).

Table 13 Assessment of the methodological quality of qualitative studies, according to the RATS guidelines. Alfenas, MG, Brazil, 2023

Source Author (2023).

Critical review of qu	alitative studies	DIVINO, L. S. et al (2021)	CARBOGIM et al (2019)	OLIVEIRA et al (2020
R	Justified relevance of the study question (2 points)			
I	Clear definition of the object and objective under study	I	I	I
2	Consistent theoretical framework with assumptions	I	I	I
3	Relevant object of study	I	I	I
THE	Adequacy of qualitative methodology (3 points)			
4	Chosen method justified	I	I	L
5	Appropriate instruments used including script items	I	I	L
6	Explicit inclusion criteria	I	I	L
т	Transparency of procedures (4 points)			
7	Study scenario/field entry strategy	I	I	L
8	Description of how data collection/sampling took place	I	I	L
9	Description of how data collection was recorded	I	I	L
10	Ethical aspects (including the role of the researcher)	I	I	L
S	Soundness of the interpretative approach (5 points)			
11	Appropriate analysis, how the analyzed material was decomposed	I	I	L
12	Historical-spatial-social contextualization	I	I	L
13	Clear interpretations, supported by evidence and in dialogue with updated literature	I	I	I
14	Limitations described	I	I	0
15	Well written text, without jargon	I	I	I
TOTAL (15 points)		14 points	15 points	15 points

Table 14 Summary of studies included in the integrative review (n=10). Alfenas, MG, Brazil, 2023

Primary study	Country	Method	Objective	Main results	Methodological quality	Level of evidence
BLACK, V.D. et al. (2023)	Brazil	Quantitative study	Identify and characterize care provided to adolescents admitted to an emergency department due to attempted suicide.	The study findings showed that the majority of adolescents treated in the emergency service were female, due to exogenous poisoning with some histories of more hospitalizations due to attempted suicide and what was most worrying was the underreporting of cases, which generates superficial care for these adolescents.	Methodological rigor	VI (clinical question/ intervention)

Table 14 Continued..

Primary study	Country	Method	Objective	Main results	Methodological quality	Level of evidence
JHA, P et al ( 2023)	Nepal	Quantitative study	To determine the prevalence of suicide attempts among psychiatric patients treated at the Emergency Department of a tertiary care center.	The results revealed that psychiatric clients were treated at a 25% rate compared to other types of treatment. However, the study revealed that most patients were female and had been treated for poisoning. The study did not mention multidisciplinary care for these clients.	Methodological rigor	VI (clinical question/ intervention)
DIVINO, L. S. et al (2021)	Brazil	Qualitative study	The objectives of this study were to understand the feelings of nurses when caring for patients attempting self-extermination, to describe the nurse's role in providing care, to verify the possibilities that these feelings may cause some type of psychological disorder in nurses, and to understand the reality of the nurse's routine when providing first aid in emergency care for patients attempting self- extermination.	This study found that most nursing professionals interviewed learned from years of providing care to this population, as most of them mentioned that they received little guidance during their undergraduate studies on how to provide this type of care to such a specific population. Another point mentioned is the lack of a qualified multidisciplinary team to provide care to people attempting self-extermination, which can result in poor quality care for these clients. It is important to note that the team must be well prepared psychologically.	A - Consistent	II (clinical question/ meaning)
BASTOS, LZB et al (2021)	Brazil	Quantitative study	To investigate epidemiological factors involved in suicide attempts by clients treated at a trauma hospital in Curitiba.	This study made it possible to understand the profile of clients who are treated in emergency units. It highlights the male sex as suicide attempters, over 18 years of age, with a significant increase between 2014 and 2017. Regarding the means of aggression, sharp objects followed by poisoning or intoxication stand out. This study also emphasized the underreporting of cases of suicide attempts, leading to failure in care and suicide prevention.	Methodological rigor	VI (clinical question/ intervention)
BRENT, D.A. et al (2023)	USA	Quantitative study	To compare the Ask Suicide-Screening Questions (ASQ) instrument with the Computerized Adaptive Screen for Suicidal Youth (CASSY) instrument for predicting suicidal behavior among adolescents treated in EDs, across demographic and clinical strata.	This study used and compared two instruments applied to adolescents with suicidal behavior or treated for suicide attempts in emergency departments. Both instruments proved to be effective in screening these adolescents who attempt or already have suicidal behavior. Both instruments can greatly facilitate the care and conduct of professionals working in emergency departments that serve this specific population.	Methodological rigor	VI (clinical question/ intervention)

Table 14 Continued..

Primary study	Count	ry Method	Objective	Main results	Methodologica quality	al Level of evidence
OTONI, K et al (2023)	Japan	Quantitati study	To identify differences in the characteristics of patients admitted for suicide attempts in the emergency room during the COVID-19 pandemic.	The study noted that there was no significant increase in suicide cases during the pandemic in the country, as Japan already has public policie to prevent suicide regardless of the occasion. Even with some exceptions, there was an increase in clients who attempted suicide through poisoning and self-inflicted injuries.	rigor	VI (clinical question/ intervention)
ALVES et al (2019)	Brazil	Quantitati Study	Discuss the concept of suicide and highlight the importance of approaching patients with attempted suicide in a general hospital in Contagem	The importance of reporting suicide attempts through SINAN records was highlighte which made it possible to draw up a profile of these patients who are treated by multidisciplinary professionals. They also emphasize that the entire team must be well qualified and prepared for this type of care.	Methodological rigor	VI (clinical question/ intervention)
LEE et al (2023)	Korea	Quantitative study	To examine annual trends in emergency department (ED) visits for suicide attempts (SA) or self-harm and investigate the sex- and age-specific characteristics of individuals who visited the ED for SA and self-harm.	The main results were that most emergency room visits were for mutilation and that this increased among young adults aged 19-29. Regarding sexuality, the number of women treated increased annually.	Methodological Rigor	VI (clinical question/ intervention)
CARBOGIM et al (2019)	Brazil	Qualitative study	To investigate the perception of nursing students about suicide and care for victims of attempted suicide.	It was found that there is a need for the topic of suicide attempts in the curriculum of nursing students, since they had great difficulty in welcoming these patients.	A - Consistent	II (clinical question/ meaning)
OLIVEIRA et al (2020)	Brazil	Qualitative study	To investigate the perceptions of nursing professionals about suicidal behavior in a public emergency hospital in Goiânia- GO/Brazil.	The results were positive regarding the perception of nurses in the care of patients attempting suicide, and highlighted the empathy of these professionals, which contributes greatly to preventing a new attempt.	A - Consistent	II (clinical question/ meaning)

Regarding the methodology applied, the consistency of the qualitative studies was verified in accordance with the RATS guidelines (level A -consistent, when they sufficiently meet 12 to 15 items) and the veracity of the quantitative studies. Regarding the methodological quality of the primary qualitative studies included, three were classified as level A, demonstrating methodological transparency, as well as sufficient and consistent interpretations. The seven quantitative studies presented quality and methodological rigor. Regarding the level of evidence, three studies were classified as level of evidence VI.

## Reading the selected articles made it possible to categorize the information, discussed below

### Profile of clients treated in emergency units who attempted to commit suicide

Suicide is a serious public health problem and is among the leading causes of death among adolescents. Understanding this phenomenon represents a significant challenge for professionals working in emergency units, especially when treating these patients.<sup>22</sup> In a study carried out by Ribeiro<sup>23</sup> on the profile of patients treated in emergency units, it was observed that the majority of individuals were young

and adult males, aged between 10 and 40 years, which is particularly worrying due to their age range. In addition, it was identified that many of these young people had low self-esteem, self-destructive desire and melancholy, especially during the period from puberty to adulthood, when they begin to face greater responsibilities. Barbosa and Teixeira<sup>24</sup> report that the majority of cases of attempted suicide treated in emergency units occur among individuals aged 15 to 29, with predisposing factors such as mental illness and psychological aspects, highlighting the Southeast region as the one with the highest prevalence of suicide attempts in Brazil.<sup>25</sup> corroborate these data by showing that the majority of patients treated in emergency units were young, male, over 18 years old, and that the most common methods of attempted suicide included injuries caused by sharp objects or poisoning.

However, several studies, such as those by Magalhães,<sup>26</sup> Freitas and Borges,27 Fogaça28 and Jha29 indicate that the majority of patients treated in emergency units are female, with suicide attempts most frequently being carried out by poisoning or exogenous intoxication, and that these women had often previously attempted suicide. Magalhães report that these women are between 20 and 40 years old and observe that men tend to use methods such as hanging and sharp materials, which are often lethal. Bastos highlight the problem of underreporting of suicide attempts, an issue corroborated by the study by Alves,<sup>30</sup> which emphasizes underreporting as a major challenge in caring for these patients. In addition, the study highlights that suicide attempts often occur repeatedly by the same person, which underscores the seriousness of the problem faced by this population. The study also highlights the importance of feeding SINAN (Sistema de Informação de Agravos de Notificação) (Information System for Notifiable Diseases) so that tools can be developed to assist professionals in caring for these victims.

In summary, the profile of patients treated in emergency units may vary according to region, age, gender and emotional problems. However, the care provided to these patients in emergency units is extremely important, especially with regard to reporting these cases, so that precise protocols and instruments can be developed to facilitate the care provided by the multidisciplinary team.

#### Prevention of suicide attempts in emergency units

Ordinance No. 1,876 of August 14, 2006, issued by the Brazilian Ministry of Health, already established National Guidelines for Suicide Prevention. These guidelines were an important step in the attempt to address the problem of suicide in the country, in addition to establishing suicide prevention strategies and policies that should be implemented in all federated units of Brazil. Reviewing and updating guidelines and manuals is common in public health, as new research, best practices, and approaches may emerge over time. Therefore, it is essential to keep these resources up to date to ensure that health professionals are equipped with the most recent and effective information to address suicide-related issues. Ordinance No. 3,491 of December 18, 2017, represents an important initiative by the Ministry of Health to promote suicide prevention in Brazil. It established a financial incentive for the development of health promotion, surveillance, and comprehensive health care projects, with a focus on suicide prevention, within the Psychosocial Care Network of the Unified Health System (SUS). This measure demonstrated the government's commitment to addressing a significant public health problem, such as suicide.

The increase in suicide attempts and the need for prompt care and support from healthcare professionals, especially in emergency units, have become essential to prevent the deaths of these patients. Therefore, in 2019, the National Policy for the Prevention of Self-Harm and Suicide was implemented, which aims to prevent these acts by reporting cases and taking immediate measures, such as ensuring access to psychosocial care for people with acute or chronic mental distress, especially those with a history of suicidal ideation, selfharm, and suicide attempts. Reporting cases is essential and extremely important in providing care to these clients. In addition, adequate care and a good therapeutic relationship can greatly help prevent new suicide attempts.<sup>31,32</sup>

Marcolan<sup>33</sup> emphasizes that suicide is a tragedy that affects not only the individual who is suffering, but also their families and communities. Therefore, it is imperative that managers, health professionals, educators and society in general come together to address this public health problem in a comprehensive and effective manner. Suicide prevention must be a priority, with investments in research, education and mental health services to promote well-being and save lives. The effective implementation of a suicidal behavior surveillance program is crucial to addressing this serious public health problem. A study conducted by Lee reports on the implementation of an effective program to prevent suicide and self-harm, indicating that monitoring this population is essential to prevent new or recurring cases from occurring. This study was conducted in Korea and was able to analyze the entire profile of the population with attempted suicide, highlighting the importance of developing programs that meet each isolated profile of vulnerable populations. Regarding vulnerable populations, the authors also emphasize that knowledge of suicide risk factors is important, among which smoking, female gender, sedentary lifestyle, anxiety disorder and hopelessness stand out. When you know and work on these factors, the suicide rate decreases and new tools can be implemented in reference units that serve these clients.

Effective suicide prevention strategies must be geared to local realities, since causes and risk factors can vary significantly between different Brazilian states and populations. These strategies adopted by the states and the federal government are crucial to combat this problem comprehensively and efficiently throughout the country. The Brazilian Ministry of Health<sup>34,35</sup> highlights that the best way to improve care for patients who arrive at emergency units after attempting suicide is through prevention. An effective suicide prevention policy depends on the collaboration and coordination of various sectors of society. Health professionals, including nurses, doctors, psychologists and social workers, play a crucial role in the early detection and treatment of people at risk. They must be trained to identify warning signs and offer appropriate support. Therefore, suicide prevention is a complex task that requires coordinated efforts from various sectors, such as health, education, social assistance, among others. In addition, it is important to reduce the stigma surrounding mental health so that people feel comfortable seeking help when needed. Collaboration between these sectors can save lives and improve the mental health of society as a whole.

According to the Brazilian Ministry of Health, in 2021 there was a significant increase in deaths by suicide among adolescents. It is estimated that for each death there are more than 20 suicide attempts. Hence the importance of developing projects and reviewing government guidelines so that there is a correct direction in

preventing suicide in the population, thus reducing emergency care in referral hospitals. It is important to monitor cases of suicide attempts by primary care in conjunction with highly complex services.<sup>36,37</sup> highlight the importance of welcoming and monitoring clients who have attempted suicide more than once and who were admitted to emergency units. During the study, clients received a safety plan prepared by the institution upon discharge from hospital and continued to be monitored by psychosocial care programs. Ultimately, the importance of welcoming by health professionals and the bond that is created at that moment can greatly help in preventing suicide, thus reducing emergency care for these clients. The study by Otani<sup>38</sup> carried out in Japan during the pandemic, showed that the rates of suicide attempts in the country, treated in emergency and urgent care units, are low, even because the country is one step ahead in terms of public policies compared to Brazil. In short, to reduce suicide attempts in the country, it is important to have suicide prevention programs, with well-established guidelines and action manuals for various sectors, to constitute a care network that can identify people with risk factors, assist them with a good therapeutic relationship, and provide support without stigmatizing their suffering, through the provision of psychosocial care services with frequent monitoring.

#### Nursing performance in care and support for customers with suicide attempts in emergency and urgent care hospitals

The research found in the studies in this review describes that professionals were willing to provide care, but without much knowledge about how to provide it to clients attempting suicide, generating conflicts and a feeling of helplessness in these care sessions, which can reduce the quality of multidisciplinary care.

The articles by Freitas and Borges, Fogaça and Jha showed that supporting patients attempting suicide is an essential element to be used by the entire team. Suicide is a complex, painful and multifactorial phenomenon and requires qualified and trained professionals to provide care in hospital emergency rooms. Not only nursing, but the entire multidisciplinary team must be willing and patient so that this patient receives the best possible care so that this phenomenon does not happen again, as mentioned in previous studies.39,40 A study conducted by Carbogim<sup>41</sup> reports on the perception of nursing students about patients attempting suicide and suicide itself and presents us with a great challenge. The students understand that care for this patient is essential, but they do not know how to welcome or care for this patient in an emergency unit and also report that it is a complex process that is not learned in undergraduate studies, thus revealing the need for continuing education, both in nursing undergraduate courses and in hospital institutions.

In addition to the lack of preparation, the articles by Divino and Fontão expose the feelings of nurses when caring for patients attempting suicide and mention the lack of a structured and qualified team for this care. In addition, they report that managers should invest in programs and actions to reduce the rates of suicide attempts.

The article by Brent<sup>42</sup> highlights instruments that facilitate the care of patients attempting suicide in an emergency department. These were essential tools that assisted professionals in this type of care. The tools cited in the research are the *Ask Suicide-Screening Questions (ASQ) with the Computerized Adaptive Screen for Suicidal Youth (CASSY)* instrument, which provide general information on suicide risk assessment in adolescents and the importance of using

appropriate screening protocols, such as the ASQ, to identify potential suicidal behaviors. It is essential to remember that suicide risk assessment is a delicate task and requires adequate training on the part of mental health professionals. Nursing is one of the categories that are most present in the first contact with the patient and/or family in emergency and urgency units. When caring for a patient who is attempting suicide, the reception must be carried out with greater care, in a calm and safe environment where there is privacy, so that bonds can be established in that moment of pain, confusion and other feelings that lead them to attempt to take their own life. In emergency and urgency units, care is redoubled, because in most cases the patient arrives already weakened or even at imminent risk of death. Santos describe the importance of nursing action in caring for suicide victims and the quality of care provided to these victims and their families. Extra attention and careful listening to these patients can greatly improve the quality of nursing care. It is also important to note the importance of reporting cases of attempted suicide so that strategies can be developed for humanized care, without any type of judgment regarding the pain of others. In this regard, Ordinance No. 1271, of June 6, 2014, establishes the National List of Compulsory Notification of diseases, injuries and public health events that must be mandatorily reported by public and private health services throughout the national territory. This list is an important tool for monitoring and controlling diseases and events of interest to public health.

This Ordinance makes suicide attempts and suicide as immediately notifiable illnesses throughout the national territory. This means that when a suicide attempt or case of suicide occurs, health professionals are required to immediately notify public health authorities, such as municipal and state health departments, so that appropriate measures can be taken. Therefore, immediate compulsory reporting of suicide attempts and suicides is an important measure to ensure that these cases are addressed and monitored appropriately and that the resources of the health and protection network are mobilized to offer help and support to people at risk. The number of attempted suicide cases has been increasing over the years. Public policies must work together with managers to reduce this number. Unfortunately, there is no age or correct profile for people to attempt to take their own lives; prevention must be for everyone. The nursing team must be committed to welcoming these victims, and must welcome and treat each case individually. Institutions must, together with the entire team, make efforts to reduce the number of suicide cases, to identify the root cause and be able to resolve it in the best possible way.43 One of the greatest difficulties for nursing professionals when caring for these patients in hospital emergency rooms is precisely the lack of knowledge about suicidal behavior, which can compromise quality and humanized care. Hence the importance of a well-trained team and an institution that works with support and even suicide prevention tools. Professionals must act with respect and ethics when caring for these patients.44

Nursing professionals must be prepared to provide care to patients attempting suicide, providing humane and qualified care. They must understand and value listening to these patients and identify characteristics that can help in the care and prevention of new attempts. Risk management tools are essential and bring positive points to the care of suicidal patients in emergency units.<sup>45-47</sup> Nursing professionals' care in cases of attempted suicide is essential in the assessment of these patients who are referred to the emergency service. The lack of clinical expertise on the part of professionals leads to impaired care and assistance for these patients, which is why it is important

for these professionals to have knowledge, qualifications and training. Health institutions have a great responsibility to encourage these professionals to improve this type of care, which improves the quality of care for patients attempting suicide. Finally, it is important to note the importance of good reception and care by nursing professionals for patients attempting suicide.48,49 They are essential because they are the first professionals to treat these patients with respect, dignity and humanization when faced with such a difficult problem to deal with. These professionals must be prepared to act quickly and attentively to each singularity and always report these cases so that projects or instruments can be developed that can assist in the care and even support public policies aimed at this problem. Regarding the limitations found in conducting this integrative review, the limited number of available studies that address the topic in question and the scarcity of research that discusses the importance of nursing professionals in managing these situations stand out. In addition, there is a restriction on controlled descriptors for this topic, which may hinder access to studies that address this subject.50

#### **Final considerations**

This study showed that the assistance provided to patients with suicide attempts in emergency and urgent care units must be carried out by a multidisciplinary team, guided by protocols or manuals, tracking instruments, whose fundamental actions are reception and active listening for unique, networked and efficient care. Cases must be reported so that the real profile of patients who have attempted suicide can be known, in order to monitor these patients and make the necessary referrals. Therefore, reporting is necessary to prevent attempts, which according to the literature, are not unique, but rather repeated. Therefore, networking is necessary for comprehensive care, depending on the reality and profile of people who attempt suicide in each location or region. Furthermore, preventing suicide attempts and suicide is of crucial importance for public health, combining efforts by managers and other sectors, such as education and social assistance. Added to this is the importance of training professionals, starting at undergraduate level, to prepare them to provide quality assistance to people who attempt suicide. Regarding knowledge gaps, we were able to observe, although considered important, the lack of studies on care tools and protocols, with only one article being raised in this direction. The study helped identify weaknesses in the training of professionals and the lack of protocols for assisting people who have attempted suicide and are treated in emergency units. These data can contribute to improving the qualifications of professionals by training institutions in assisting these clients, as well as contributing to the adoption of tools, instruments and protocols for assistance, both by hospitals and by public policies, which will result in an improvement in the quality of the assistance provided. The limitations of the study are due to the methodology used. Clinical trials and longitudinal follow-up studies are recommended to verify effective forms of care for people who have attempted suicide.

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#### **Conflicts of interest**

The author declares that there are no conflicts of interest.

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