# ORIGINAL



# Clinical-epidemiological characterization of suicide attempts

# Caracterización clínico-epidemiológica del intento suicida

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## ABSTRACT

Introduction: at present, suicide is one of the ten leading causes of death in most countries.

**Objective:** to characterize clinically and epidemiologically the suicide attempt in the municipality of Viñales in the period from 2015 to 2018.

**Method:** an observational, descriptive and transversal study was carried out, the universe and the sample coincided in number (80), selected by a simple non-probabilistic random sampling, theoretical, empirical methods were applied when reviewing clinical and family health histories, in addition a structured interview and the family functioning test were applied; the data were processed and taken to tables for better interpretation, a statistical study given in absolute and relative numbers was applied.

**Results:** there was a predominance of female sex and age group between 25-59 years, most of them had finished high school, were married and workers, the most used suicidal methods were the soft ones, the severity of the circumstances was low, the greatest number of patients showed seriousness of intention, depression was the most frequent risk factor and family functioning was moderately functional families.

**Conclusions:** suicide attempts constitute a health problem in the population of Viñales, risk factors should be identified in order to carry out health actions aimed at prevention.

Keywords: Suicide Attempt; Risk Factors; Family Functioning.

# RESUMEN

**Introducción:** en la actualidad el suicidio ocupa un lugar entre las diez primeras causas de muerte en la mayoría de los países.

**Objetivo:** caracterizar clínica y epidemiológicamente el intento suicida en el municipio de Viñales en el período del 2015 al 2018.

**Método:** se realizó un estudio observacional, descriptivo y transversal, el universo y la muestra coincidieron en número (80), seleccionada por un muestreo aleatorio simple no probabilístico, se aplicaron métodos teóricos, empíricos al revisar las historias clínicas y de salud familiar, además se aplicó una entrevista estructurada y el test de funcionamiento familiar; los datos se procesaron y llevaron a tablas para su mejor interpretación, se aplicó un estudio estadístico dado en números absolutos y relativos.

**Resultados:** predominó el sexo femenino y el grupo de edad entre 25-59 años, la mayoría tenían un nivel secundario terminada, eran casados y trabajadores. Los métodos suicidas más usados fueron los suaves, predominó la gravedad de las circunstancias baja, el mayor número de pacientes mostraron seriedad de la intención, la depresión fue el factor de riesgo más frecuente y el funcionamiento familiar resultó familias moderadamente funcionales.

Conclusiones: el intento suicida constituye un problema de salud en la población de Viñales, hay que

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Palabras clave: Intento Suicida; Factores de Riesgo; Funcionamiento Familiar.

#### INTRODUCTION

Suicide has become a universal phenomenon. It is present in all cultures and throughout all periods of history. However, various attitudes have been observed within each society, influenced by prevailing philosophical principles, idiosyncrasies, local cultures and religions, and the intellectual degree of the society being studied.

The very concept of suicide has had multiple meanings ranging from mystical explanations adopted by primitive tribes, social conceptions, to multicausal theories that prevail today.<sup>(1)</sup>

Determining the incidence of this phenomenon is hard due to methodological issues and underreporting associated with the social burden that relatives of the victim face when confronting this situation. However, it is known that countries such as Scandinavia, Finland, Switzerland, Germany, Austria and Eastern European countries have high suicide rates exceeding 25 *per* 100 000 inhabitants, while countries such as Spain, Italy or Egypt have rates below 5 *per* 100 000 inhabitants. Nevertheless, the World Health Organization (WHO) warns about this dangerous this situation because approximately 10,2 million people commit suicide attempts that require medical attention, and approximately 30 million would be at risk even if they do not require medical assistance.<sup>(1)</sup>

In Colombia, suicide is considered a public health issues, given that it is one of the top leading causes of death in the country. It is argued that a suicide attempt is a multicausal phenomenon, and cannot be attributed to an isolated or specific event.<sup>(2)</sup> Among the most significant risk factors for committing suicide is the history of prior attempts.<sup>(3)</sup>

In Latin America, suicide rates vary among countries, generally ranging from low to moderate. However, countries such as El Salvador, Uruguay and Venezuela have experienced sustained increases in rates It is estimated that between 2 % and 12 % of the young population have attempted suicide, making it a frequent cause for mental health consultation and a serious public health issue.<sup>(4)</sup>

Numerous efforts are being made to develop prevention strategies, particularly aimed at the young people, as suicide rates have increased globally. On the other hand, adult population rates have decrease in some countries. It has been reported that the prevalence of suicidal ideation, planning, and attempt among teenagers in the United States is 12,1 %, 4 %, and 4,1 %, respectively. In Chile, the published statistics far exceed international figures, with a prevalence of suicide attempts among teenagers ranging from 19 % to 26,3 % in the metropolitan región, and 25,6 % in Concepción.<sup>(4)</sup>

Currently, suicide is one of the top ten leading causes of death in most countries, and every day, nearly 1,110 people commit suicide worldwide. At the same time, hundreds of thousands from various cultures, religion, ethnicity or economic position attempt suicide.<sup>(5,6,7)</sup>

According to global suicide statistics by age, suicide attempt rates among young people are on the rise in all countries <sup>(4,8)</sup>

According to data from the WHO, in the United States of America, in 2010, suicide ranked the third leading cause of death among young people aged 15 to 24 years. It was among the top five causes of death up to 34 years old, and among the top ten causes of death up to 44 years old. This numbers show that suicide rates decrease with age.<sup>(8)</sup>

It is estimated that, in the same country, there are 25 failed attempts for every suicide death. Among these attempts, the highest proportion corresponds to teenagers, reaching as high as 100 to 200 failed attempts for every suicide committed.<sup>(6)</sup>

It is stated that a suicide attempt occurs every 42 seconds, and a suicide every 17 minutes, especially in people aged between 7 and 14 years. At some point in their life, they feel that life has no meaning for various reasons. Considering suicide as an option becomes a potential threat to resilience.<sup>(1,3)</sup>

Resilience is the combination of factors that allow a human being to face and overcome life's challenges, cope with adversity, defeat it and ultimately, use it to make a positive change.<sup>(1)</sup>

In Canada, the United States and Cuba, over 60 % of suicides in both sexes occur between the ages of 15 and 44, and decline after the age of 45.<sup>(1)</sup>

When considering the situation of countries such as Guyana, Trinidad and Tobago, Uruguay, Cuba and Canada, where there are high mortality rates, the need for in-depth analysis and psychosocial studies is emphasized. Ironically, these countries typically show the best overall health indicators on the continent.<sup>(9,10,11,12)</sup>

The suicide mortality rate in Cuba increased in the 600 swith levels above 20 per 100, 000 inhabitants until early 90s. This behavior became the 8th. cause of death of Cubans.

Rural Cubans show a higher suicide rate than those in urban areas.<sup>(6,7)</sup>

Since 2010, according to the Cuba Statistical Yearbook, self-inflicted injuries have dropped from the seventh leading cause of death to the ninth. Between 2011 and 2013, suicide rate in Cuba remained below 15 *per* 100,000 inhabitants, while suicide attempts increased.<sup>(6,7)</sup>

Suicide attempts are of significant interest to research studies as they involve individuals who have survived the closest experience to suicide; therefore, they are a valuable source of information about what happens to a subject who doesn't want to live anymore. Below, we will show how this aspect has evolved in Cuba and, more specifically, in our province of Pinar del Río in recent years <sup>(4,8)</sup>

As we can see, the province has experienced an extraordinary increase in this aspect and, in my opinion, figures are shocking. That's why from my municipality, I have been interested in going deeper into this topic through research.

Due to the aspects explained above, the author's objective is as follows: to clinically and epidemiologically characterize suicide attempt in the municipality of Viñales from January 2015 to December 2018.

#### **METHODS**

An observational, descriptive and cross-sectional study was conducted in order to characterize the clinical and epidemiological aspects of patients who attempted suicide in the municipality of Viñales from January 2015 to December 2018.

#### Study universe

The universe consisted of 80 patients. 100 % of suicide attempts occurred within the above mentioned period, and met the following inclusion and exclusion criteria. The sample coincides with the universe of the 80 patients.

#### Data collection

Theoretical method (literature review): An extensive literature review was carried out using INFOMED resources to search for the necessary information for the theoretical framework of the thesis and the discussion of the results.

Empirical methods (documentary review): The family and individual medical records of patients who committed suicide attempts included in the study were reviewed. These records were stored in the offices of the family physicians in the Municipality of Viñales. A structured interview was conducted and the Perception of Family Functioning Test (FF-SIL) was completed by the entire sample.

#### Methods and procedures

After obtaining patients consent to participate in the research, an interview was conducted. If necessary, a family member was also interviewed. The survey was conducted and FF-SIL Test was completed. With this information and the principal investigator's detailed review of the individual and family medical records of the patients who had committed suicide attempts (stored in the offices of the family physicians in the Municipality of Viñales), the necessary data for this study were collected. Later, the information was organized in a structured spreadsheet by variables, where the details of each patient were registered.

#### Methods of data processing and analysis. Techniques

The information was processed using microcomputers. Microsoft Office's Word and Excel softwares were used. Word 2007 was used for report writing, and Excel was employed for creating tables and performing statistical calculations, expressed in absolute and relative (%) values.

#### **Ethical considerations**

Every patient who had attempted suicide in the municipality of Viñales and met the inclusion criteria was provided with an explanation of the ongoing research, its significance, and its utility. Patients were also informed that confidentiality of the data would be maintained. Details and individual responsibility were explained to the participants. Once they agreed to participate in the study, their voluntary consent was obtained in writing. It was made clear that choosing no to participate would have no impact on their medical care and would not affect the doctor-patient relationship.

#### RESULTS

The female sex was predominant among patients who attempted suicide during the study period, accounting for a total of 62 patients (77,5 %). The male sex consisted of 18 patients, accounting for 22,5 %.

After analyzing the total number of patients, it was observed that the majority fall within the age group of 25 to 59 years, accounting for nearly half of the cases, followed by the age group of 15 to 24 years (47,5 % and 40 %, respectively).

Patients who attempted suicide are described according to their educational level, and it is observed that 55 % completed the secondary education.

Marital status is a variable of great significance when it comes to analyzing risk factors that influence suicidal behaviors in a positive or negative way. Table 3 displays the results according to marital status, with 41,2 % identified as married, followed by 39,7 % identified as single.

There was a predominance of suicide attempt among workers (33,7 %), followed by homemakers and students in equal proportions (30,8 %).

Table 1. Patients who attempted suicide based on method used and sex						
Method used		Sex			Total	
	Fen	Female		Male		
	No.	%	No.	%	No.	%
Soft	55	68,7	11	13,7	66	82,5
Hard	7	8,7	7	8,7	14	17,5
Total	62	77,5	18	22,5	80	100,0

In this study, the most commonly used methods for suicide attempt in all patients in the municipality of Viñales were those mild or less lethal, accounting for 82,5 %. There were no sex differences. (table 1)

Table 2. Patients who attempted suicide according to the severity of the circumstancesand sex						
Severity of the	Sex				Total	
circumstances	Female		Male			
	No.	%	No.	%	No.	%
Null	20	25,0	0	-	20	25,7
Low	34	42,5	5	6,2	39	50,0
Moderate	5	6,2	12	15,0	17	21,2
High	3	3,7	1	1,2	4	5,1
Total	62	77,5	18	22,5	80	100,0

Table 2 shows the results related to the severity of the circumstances and sex, revealing a 50 % incidence of low severity, which was predominant in both sexes.

Table 3. Patients with suicidal intention according to theseriousness of intention			
Seriousness of suicidal intention	Total		
	No.	%	
None	13	16,7	
Moderate	19	24,4	
Severe	44	55,0	
Very Severe	4	5,1	
Total	80	100,0	

The results of patients with suicidal intention according to the seriousness of the suicidal intention are shown in table 3, where 55 % is considered severe.

Table 4. Patients with suicidal intention based on thepresence of risk factors			
Risk factors for suicidal intention	Total		
	No.	%	
Depression	22	27,5	
Previous suicide attempts	17	21,8	
Family history of suicide attempts	15	19,5	

History of psychiatric disorders	13	16,7
Family history of suicide	6	7,7
Loneliness	3	3,8
Alcoholism	3	3,8
Malignant disease	1	1,3
N=80		

It was detected that 27,5 % of the sample has a history of depression, followed by 21,8 % who had previous suicide attempts (table 4).

Table 5. Family functioning of patients who attempted suicide			
Family functioning	No.	%	
Dysfunctional	18	23,1	
Moderately functional	45	56,2	
Functional	17	21,8	
Total	80	100,0	

Table 5 shows the family functioning for each participant at the time of suicide attempt in the municipality of Viñales. It is observed that moderately functional families (56,2 %) are the most prevalent, followed by dysfunctional families in 18 patients (23,1 %) in terms of frequency. There is almost the same prevalence of functional families (21,8 %).

#### DISCUSSION

When considering both age and sex, the age groups of 15 to 24 years, and 25 to 59 years exhibited the highest proportions of suicide attempts in both sexes.

Various authors have conducted studies analyzing the age and sex variables performance in patients who attempted suicide. When comparing the results obtained by other authors, it is also observed that female sex predominates over male sex in terms of suicidal ideation and attempt.<sup>(13)</sup>

Global suicide statistics, categorized by age, indicate that suicide attempt rates among young people are on the rise in all countries. According to data from the WHO, in the United States of America suicide ranks the third leading cause of death among young people aged 15 to 24 years. It is among the top five causes of death up to 34 years old, and among the top ten causes of death up to 44 years old. This numbers show that suicide rates decrease with age.<sup>(4)</sup>

However, in our research, we found that the group of young people aged 15 to 24 also predominated, displacing young adults (25 to 59) to a second place. This similarity is alarming, as results from 2011 to 2013 in Cuba were different.<sup>(6,7)</sup>

The educational level is a variable described as a significant factor in patients who attempted suicide. In most cases it is directly proportional to the number of suicide attempts.

These results are similar to those found in a reviewed article which studied 85 patients who attempted suicide between January and June 2003. In that research, secondary school completion predominated (49 %).<sup>(14)</sup>

Most of the literature consulted shows a predominance of suicide attempt in patients with lower educational levels. In contrast, our study reveals that there is a higher predominance in individuals who completed secondary and pre-university education. These findings partially align with those of a study reporting patients with basic or incomplete education (78,3 %).<sup>(15)</sup>

These results are consistent with other studies conducted both in our region<sup>(16,17)</sup> and abroad.<sup>(4,12,18)</sup> They are also aligned with those obtained in our research, which shows the predominance of women who completed their secondary education.

People living alone due to widowhood, divorce or family abandonment constitute at-risk groups for suicidal behaviors.

The results obtained do not correspond to what was found by some researchers. As per these authors, "married/cohabiting" individuals show the lowest prevalence, while "separated/divorced" individuals show the highest prevalence.<sup>(18)</sup>

In a reviewed article, it was found that widowed and single individuals have higher suicide rates compared to married ones. This indicates that marriage serves as a protective factor against suicide. So far marriage has been an indicator of good social status; however, it is a socially determinant fact because in countries such as Pakistan, India and Hong Kong marriage is a risk factor for female suicide due to social, legal and economic discrimination suffered by women in those countries.<sup>(18)</sup>

On the other hand, in articles addressing the management of suicide attempts, it is noted that marital problems significantly accentuate suicidal behavior. This corresponds to findings from a research study on risk factors, where it was found that marital conflicts predominated in suicide attempts, accounting for 24 cases, or 39,3 %.<sup>(10)</sup> In that study, patients with a partner comprise over half of the sample, which is also consistent with our study where they are the majority.

According to the results of a study conducted in Madrid, in 2004, the "typical" patient was a middle-aged woman, who lived with either a partner of a family.<sup>(19)</sup> This aligns with the findings of this study, where the proportion of women with a partner presented the highest rate of suicide attempts among females.

Results similar to ours were observed in the study of 80 patients presented by IS de la Peña Galbán *et al.*<sup>(16)</sup> In their study there was a predominance of the single marital status, with 57 patients (69,5 %), followed by the married patients.

In the research presented by Herrera Santí,<sup>(20)</sup> Torres Lio-Coo et al.<sup>(21)</sup> results equivalent to ours were obtained. When we compare those findings with ours, we arrive at the conclusion that, although marriage was once considered a protective factor, it no longer serves that role in the present day. We came to this conclusion after observing that the married group had a high incidence of suicide attempts.

While the high rate of suicide attempts among workers is noteworthy, we must also consider the predominance of the age group between 25 and 59, which is the working-age population and has completed secondary education. This is the prevailing educational level among the patients in our study.

Globally, suicide attempt rates are higher in countries where unemployment, family and social disconnection, as well as emigration occur. The relationship between job instability and suicidal behavior seems to be attributed to economic factors, and social and family support, which can lead to greater vulnerability to mental illnesses.

The risk of committing suicide increases in retirees or workers with unstable job situation. Job loss or long-term unemployment are more attributable to individual failures than to social problems and result in identity problems, loss of control, helplessness and depression.<sup>(22)</sup>

Men can react with aggressiveness, risky behaviors, violence, substance use and suicide. On the other hand, women are more vulnerable to inadequate adaptive strategies such as emotional inexpressiveness, not asking for help and suicidal attempt.

Authors noted that the lowest levels of resource availability are associated with the highest prevalences of suicidal behavior worldwide. For example, those who have not been working in the last 30 days, the unemployed, those with extremely low income and those living in poor housing conditions show higher prevalences of suicidal ideation, plan and attempt.<sup>(23)</sup>

This aligns with the conclusions reached by Torres Lio-Coo V et al.<sup>(24)</sup> in a study involving 85 patients who had attempted suicide. In their study, they found a prevalence of females, with many of them being primarily focused on their studies or working as housemakers. This is in line with our results.

In contrast to the findings reported by other authors, in our country, suicidal attempts are not as strongly linked to resource availability, and particularly not to unemployment, given the low unemployment rate in our region.

In another articles reviewed, it is noted that workers have specific health care needs due to high levels of alcoholism, drug dependency, marital breakups, mental illness and suicide.

Similar results are observed in the study with 39,7 % of the treated patients being in active employment. These data are equivalent to those obtained in our study.<sup>(25)</sup>

The most commonly used soft or less lethal methods were the ingestion of psychotropic drugs, especially anxiolytics such as meprobamate, chlorodiazepoxide, nitrazepam, diazepam and antidepressants such as trifluoperazine. Other drugs such as dimenhydrinate were also consumed for suicide attempts; another less-lethal method used was the ingestion of insecticide.

The hard or lethal methods most commonly used were blood vessel section, burns, and hanging.

When choosing a method, sex is not the only influencing factor. Others factors include culture, traditions, religion, and lifestyle. For example, in the United States, firearms were the most common method among men and women over the age of 60. It is recognized that globally, this method is used more frequently by both men and women. The rates of suicide using firearms vary depending on local availability and regulations concerning firearm possession. Therefore, our results differ from those found by other authors.<sup>(26,27, 28)</sup>

Hanging is more common in other countries, while in China, pesticide poisoning is reported as the most frequent method.<sup>(18)</sup> In almost all the studies reviewed, women tend to choose softer methods, while men opt for more violent methods.<sup>(29)</sup>

The epidemiological results obtained in our research closely correspond to the literature reviewed.

The method most commonly used by females was the ingestion of psychotropic drugs. Regarding suicide, there was a predominance of males using methods such as hanging and the ingestion of organophosphates. Both methods are considered hard and highly lethal.<sup>(17)</sup>

In accordance with the results obtained, reviewed articles show similar results. The most common method in research was the ingestion of psychotropic drugs, benzodiazepines, and antidepressants.<sup>(15,16)</sup> Torres Lio-Coo V et al.<sup>(24)</sup> also agree that psychotropic drugs are used as the first choice, followed by organophosphates, insecticides and hanging.

On the other hand, it can be observed that there is a male predominance in cases of moderate severity (suicide attempt occurs in circumstances that usually contribute to suicide, although there is some chance of prevention).

As analyzed above, the severity of the circumstances is low, and showed a higher incidence in this research; patients neither announced their intentions, as in the cases of no severity, nor took precautions, as in the cases of moderate severity. This makes it easy to discover their intentions, and suicide only occurs exceptionally.

The severity of the circumstances correlates with lethal intent, especially when violent methods are used. In drug poisoning, the relationship is less strong due to the patient's toxicological knowledge.<sup>(30)</sup>

Low severity of the circumstances means that patients would exceptionally commit suicide. It is important to remember that the common belief that "those who talk about it don't do it" is a myth.

Suicidal individuals usually give both direct and indirect verbal clues about their suicidal intentions. For instance, they consulted with a doctor the month before the event, discussed their desire to die with someone else, or made an overt suicide threat. These behaviors fall under the "no severity" category, where patients with suicidal ideation announce their self-harming intentions in a place where they can be easily discovered. This scenario makes it almost impossible that the suicide attempt would lead to a suicide.<sup>(31,32)</sup>

This behavior is also observed in the study conducted by Oquendo, with a prevalence of low severity cases where the patient knows that there is a chance of preventing suicide.<sup>(11)</sup>

The predominance of females in low severity cases, and males in moderate severity cases, is not surprising because it aligns with the epidemiological patterns observed in the literature reviewed.<sup>(31,32)</sup> These patterns are also similar to those found in other studies reviewed where high severity cases are rare.

The highest proportion of high severity cases was observed in males, consistent with the literature reviewed. It is well-established that high severity cases are more frequent in males, who have higher rates of suicide. They also use more violent methods than women, and look for the most appropriate moment to make their suicidal thoughts real.<sup>(11,31.32)</sup>

Lethal intentionality is greater when there is premeditation involved. For example, when individuals "get their things in order" or "write a farewell note", especially when they "take measures to be rescued." On the other hand, leaving clues, even asking for help, and, to some extent, impulsiveness, lessen the lethality risk.

Analyzing the seriousness of the suicidal intention according to sex in the patients who attempted suicide in the municipality of Viñales, it was observed that a substantial number of them showed seriousness in their suicidal intention, i.e. a genuine desire to die (though mitigating factors were present). Seriousness is most pronounced in both sexes, and accounts for over half of the suicide attempts in each sex.

There is a frequent dissociation between the individual's intention to die and the harm caused by the suicide attempt. Serious suicide attempts tend to undermine their level of intentionality.<sup>(31,32)</sup>

It is important to note that the lack of seriousness or null seriousness (there is no intention of suicide; the individual acts on unpremeditated and low-intensity impulse or with the intention of gaining something) showed very similar proportions in both sexes, just like those categorized as very serious (there is a genuine intention to die, but the intent cannot be completed due to a casual and unforeseen event). Happily, this category was observed in a very low proportion, in both sexes.

It is not common for female suicide attempts to be categorized as serious or very serious, as it happens with men. Reviewed literature describes that it is more frequent in men, who use more aggressive methods and have more serious intentions of dying than women.<sup>(33)</sup>

A wide range of variables of diverse nature have been analyzed as potential risk factors involved in the vulnerability to the development of suicidal ideation and behaviors. However, the weight of each one is unknown, as well as the potential interactions among them.

It has frequently been associated with suicidal behavior and ideation. Thus, in girls, the presence of major depression is the most significant risk factor, followed by a previous suicide attempt. In boys, on the other hand, the previous suicide attempt is the most significant risk factor, followed by depression, substance abuse and behavioral disorders.<sup>(34)</sup>

The presence of depression symptoms increases the risk in both sexes, and it is observed that depression disorders are present in 49 % to 64 % of teenagers who commit suicide, making it the most prevalent pathology. (35)

In a review on the subject, it is mentioned that major depression increases the risk of suicide up to 12 times, especially when feelings of hopelessness are among the symptoms.<sup>(3)</sup>

Some studies remark that approximately 50 % of teenagers who conduct a serious suicide attempt have committed at least one prior attempt.<sup>(38)</sup> Similar findings are described in an article reporting that the

prevalence of major depressive episodes in this population was 41,9 %. The occurrence of such episodes was linked to female sex, age over 35, and a personal history of psychiatric illness.<sup>(14)</sup>

In his paper, José A. Barrionuevo, from the University of Buenos Aires, asserts that suicidal behaviors can be associated with many emotional disorders such as depression, schizophrenia, and bipolar disorder. Hence, more than 90 % of all suicides would be related to emotional disorders or other psychiatric illnesses.<sup>(36)</sup>

These results are similar to those reported in research showing that half of the respondents (51 %) reported feeling depressed at least once in the previous week, and 40 % stated that they felt alone. In this same research, 8,3 % of respondents admitted to having attempted suicide.<sup>(3)</sup>

In another study reviewed, it was found that 36,4% of the sample had one or two previous suicide attempts, 86,8% had a psychiatric diagnosis and 54% of the respondents had a psychiatric disorder at the time of the study.<sup>(38)</sup>

Guibert Reyes W et al.<sup>(22)</sup> also found personal pathological history of previous suicide attempt in 29 patients (35,37 %), as well as family pathological history of suicide attempt in 33 patients (40,74 %), in the study conducted.<sup>(23)</sup>

Equivalence of these results was found with those from other authors who report a high incidence of family history of suicide attempt and psychiatric disorders. Among psychiatric illnesses depressive and anxiety-related situational disorders were predominant.<sup>(29)</sup>

The vast majority of the literature reviewed about suicide attempt identify various risk factors such as loneliness, poor health, depression, alcoholism, low self-esteem, hopelessness, feelings of family and social rejection. Besides, a history of self-harm and the inability to solve problems, especially those of a social nature, are also considered contributing factors. Likewise, between 45 % and 70 % of those who attempt suicide primarily suffer from depression, with impulsive and aggressive traits, personality disorders and alcoholism. <sup>(14,16,19,33)</sup>

For the individual family has a significant meaning, and it represents personal and social commitment, a source of love, satisfaction, well-being and support. However, it may also constitute a source of dissatisfaction, discomfort, stress and illness. Disruptions in family life can lead to emotional disturbance, and health unbalance and decompensation. Experiencing family problems can lead to stress responses, including the loss of control over chronic diseases or their onset.<sup>(37)</sup>

The family serves as an individual's primary social support network throughout life. Therefore, it is recognized that this institution plays a protective role against the stress arising from daily life. Family support is the main resource for promoting health, preventing diseases and its associated harms, as well as the most effective support that individuals feel and perceive when facing all the changes and contingencies throughout their life cycle in a social context.<sup>(37)</sup>

Although our study doesn't primarily focus on dysfunctional families but rather moderately functional ones, this should serve as a warning sign for physicians. It indicates the presence of problems that require attention and intervention because it is one of the most important risk factors identified in patients who attempted suicide.

We must emphasize that nearly the majority of the sample attempted suicide as a result of family problems, either with a spouse or another family member (such as mother or father). Family functioning is a significant risk factor. In most of the nuclear families of patients who attempted suicide, fair and poor family functioning prevailed. The entire sample also exhibited the presence of lasting family crises, with a predominance of crises related to disorganization and demoralization. Additionally, there was a notable deterioration of family relationships.

Authors argue that major depression, feelings of guilt and/or hopelessness, and a disorganized home environment were the primary risk factors that preceded suicide.<sup>(34)</sup>

In the conducted research, it was observed that a significant risk factor in suicidal ideation was the depressive symptomatology. The research also confirms that the most frequent precipitative factor is family conflict and domestic violence, which unveil discordant and hostile relationships between parents, or between parents and their children. Other subtler disturbances may include strict or inconsistent discipline (as a result from parental disparity) or ineffective control and supervision with lack of limits for teenagers, as well as family history of psychiatric illness.<sup>(17)</sup>

Similar results to ours were found. They conducted an extensive research in order to establish a connection between individual's emotional health and family functioning. The most important conclusion was that the positive emotional health of the children was closely related to a loving and secure parental relationship, regardless of whether the parents themselves were emotionally healthy as individuals.<sup>(38)</sup> Moreover, the quality of family relationships regulates the development of the family as a whole.

#### CONCLUSIONS

In summary, suicide attempt is a significant health issue in the Viñales population. It is imperative to identify risk factors in order to implement health interventions focused on prevention.

The study showed a predominance of females and individuals in the age group of 25 to 59 years. Most of them had completed the secondary education, were married, and held jobs. The most commonly used suicide methods were soft or less lethal. Regarding the severity of the circumstances, low severity predominated. Most patients exhibited seriousness in their suicide intention. Depression was the most common risk factor. The level of family functioning was moderate.

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# **CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

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