

# Effects of Polyvictimization in Suicidal Ideation among Children and Adolescents in Chile

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## II. LITERATURE REVIEW

**Abstract**—In Chile, there is a lack of evidence about the impact of polyvictimization on the emergence of suicidal thoughts among children and young people. Thus, this study aims to explore the association between the episodes of polyvictimization suffered by Chilean children and young people and the manifestation of signs related to suicidal tendencies. To achieve this purpose, secondary data from the First Polyvictimization Survey on Children and Adolescents of 2017 were analyzed, and a binomial logistic regression model was applied to establish the probability that young people are experiencing suicidal ideation episodes. The main findings show that women between the ages of 13 and 15 years, who are in seventh grade and second in subsidized schools, are more likely to express suicidal ideas, which increases if they have suffered different types of victimization, particularly physical violence, psychological aggression, and sexual abuse.

**Keywords**—Chile, polyvictimization, suicidal ideation, youth.

## I. INTRODUCTION

SUIDICE ideation is a critical issue among young people in Chile. Therefore, this paper aims to identify a correlate the main variables that can contribute to the persistence of this social problem. One of the most significant phenomena is polyvictimization which is associated with a "cumulative trauma that individuals face when exposed to various types of violence" [2]. Polyvictimization is expressed in episodes such as domestic violence, school bullying, and sexual abuse. As indicated by the findings of Guerra, Inostroza, Villegas, Villalobos, and Pinto-Cortez [7], this phenomenon is characterized by the occurrence of multiple episodes of violence, which can be simultaneous, thus differentiating from the victimization, which refers to a single type of abuse or vulnerability. Therefore, the effects of polyvictimization would tend to be more complex and would have a deepest impact and severity than exposure to exclusive types of violence [6], [11]. Likewise, the evidence shows that polyvictimization is associated with symptoms and externalization of its effects, mainly in adolescents [3], [5], [10], [16]. Thus, it is possible to argue that it is common for children and adolescents to be exposed to situations of violence and, therefore, to episodes of victimization similar to those faced by adults. However, young people are in a much riskier position since there are greater possibilities that negative consequences of polyvictimization will be expressed more intensely and have a much longer time perspective.

In Chile, the research conducted by [4], concluded after interviewing professionals working with child victims of mistreatment showed that many of the children presented characteristics related to episodes of polyvictimization. During 2015, UNICEF analyzed the available information of 1555 adolescents living in Chile. This work showed that 41.9% of the total respondents stated that they had suffered various types of violence and victimization throughout their lives. The work of [12] indicates that of 706 young people consulted, 68.1% experienced up to six different types of victimization and 30.3% had suffered seven or more different episodes of violence. Additionally, this research generated evidence regarding the correlation between polyvictimization episodes and the symptoms of post-traumatic stress syndrome (PTSS).

According to these findings, the greater the number of types of victimization throughout the life of young people; the greater the severity of the symptoms. These studies visualize the phenomenon of polyvictimization as a complex problem. Worldwide, evidence accounts for the negative effects of polyvictimization episodes on child and adolescent life, which can extend even into adulthood [16], [17]. Similarly, several studies have shown that child and adolescent polyvictimization predicts psychological stress, decreased academic performance, and social and emotional maladjustment [18], as well as promoting depression and anxiety disorders [19].

Polyvictimization in children and young people can be grouped into three main categories that correspond to bullying, sexual abuse, and physical aggression [20], [21]. Different researches have linked the emergence of suicidal thoughts with episodes of polyvictimization, particularly associated with bullying and physical aggression [1], which allows affirming that polyvictimization has a significant impact on mental health, including the risk of suicide. In Chile, the work of [20] indicates that the risk of suicide is associated with the presence of suicidal ideas, related to psychiatric disorders, as well. These studies concluded that there is an increase in polyvictimization episodes among adolescent in the Santiago Metropolitan Area. Other studies have obtained similar results. In Concepción, for example, the prevalence identified for suicidal ideation is 57% and 14.2% for attempted suicide, which represents a significant increase in these values [9].

In Calama, an analysis developed by [13], concluded that there was an increase in the values of suicidal ideation from 1990 to 2000. In addition, the national and international literature indicates that Chile greatly exceeds the values of ideation and suicide attempt, with a prevalence of 33% of

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suicide ideation among young people [14]. Itani, Fischer, and Kraeme [8] found that gender would have a significant effect on the development of suicidal thoughts among polyvictimimized children and young people. Among female students, the proportion of suicidal thoughts is greater than men. Evidence from international research also suggests that polyvictimization is one of the most significant predictors of the emergence of suicidal thoughts [22], which will constitute polyvictimization as a reflection of multiple adversities in different contexts of children and adolescents. In this sense, there is a clear prevalence of suicide among women. As observed in the results of the work of [15], suicidal ideation in women is greater than in men, reaching 20% more in this group. Regarding age, the available evidence indicates that the highest incidence occurs at age 15 years [20].

Additionally, when comparing the results by type of dependence of the schools, an important difference can be seen between students from public and subsidized establishments in relation to private schools, regarding suicidal ideation. The percentage of students of both sexes who showed signs of suicidal ideation, according to the findings of [20], was 25.1%, corresponding to the age range of 10 to 13 years.

These findings suggest that this phenomenon occurs every time at a younger age. However, in general, the evidence does not establish a relationship between episodes of polyvictimization and suicidal thoughts. Considering this background, this study seeks to provide evidence to better understand some critical aspects associated with suicidal ideation in Chilean children and youth. Thus, the aim of this study is to correlate polyvictimization episodes and suicidal ideation considering the possible effects of demographic variables such as sex, age and educational level of Chilean children and adolescents.

### III. METHOD

#### A. Study Design

In this study, secondary data from the First National Survey of Polyvictimization in Children and Adolescents were used, whose objective was to measure polyvictimization in children and adolescents who study between seventh grade and third grade of educational establishments in the country. A stratified sampling was developed with a non-proportional distribution of the sample between strata.

#### B. Variables

The dependent variable of this study is the suicidal ideation expressed in the question contained in the First National Survey of Polyvictimization in Children and Adolescents, "I think it is not worth living" that contemplates the following response categories: "never", "sometimes" and "always". The variable was coded in "Yes", for "sometimes" and "always" and "No", for "never". The independent variables that were considered for the analysis refer to the polyvictimization episodes based on the questions associated with whether the respondents ever suffered events such as physical aggression,

psychological abuse, insults, sexual abuse, and Internet harassment. In addition, as independent co-variables, we considered the age, sex, course, and dependence of the establishment where the interviewees studied. Table I and Table II show the demographic variables and the polyvictimization variables, respectively.

#### C. Statistical Analysis

To analyze the characteristics of the sample, a descriptive statistical analysis was applied. In order to examine the proportion of children and young people who manifest suicidal ideation, we worked with contingency tables according to each of the variables associated with polyvictimization episodes. Later, a binomial logistic regression model was applied in order to establish an association between suicidal ideas and polyvictimization episodes. The data were analyzed with the RStudio software with a level of significance of 0.05.

## IV. RESULTS

#### A. Sample Characteristics

The secondary analysis of the data from the First National Survey of Polyvictimization shows that, of the total sample ( $n = 15454$ ), the majority of respondents are women (50.6%). On the other hand, the prevalence of suicidal ideation corresponds to 28.6%, being higher in women (62.5%) and among young people between 13 and 16 years of age. Regarding the variables associated with education, the highest prevalence of suicidal ideation occurs in seventh-grade students who study in subsidized schools. All demographic variables were statistically significant with respect to their relationship with suicidal ideation. These data are displayed in Table I.

Of the 18 variables that express polyvictimization episodes, which include events such as physical aggression, psychological and emotional violence, sexual abuse, robbery, bullying and cyberbullying, six of them turned out not to be statistically significant ( $p = 0.75$ ). These variables correspond to episodes of robbery, physical attacks without weapons, peer harassment, and mild sexual abuse, even though some of them have a significant prevalence in suicidal ideation, as is the case of physical aggression. The values of each significant variable and its correlation with suicidal ideation and the odds ratio (OR) are detailed in Table II.

#### B. Association between Episodes of Polyvictimization and Suicidal Ideation

In order to evaluate the prevalence of suicidal ideation, a binomial logistic regression model was developed, considering the variables associated with polyvictimization that were found to be statistically significant. According to the results of the model, women are more likely to experience episodes of suicidal ideation (OR: 1.49, 95% CI: 1.37-1.62). This probability also increases with age (OR: 1.13, 95%, CI: 1.08-1.19), even though seventh-grade students show a higher probability of expressing suicidal ideas (OR: 1.19, 95%, CI: 1.06-1.35). The same occurs among students who attend subsidized establishments (OR: 0.84, 95%, CI: 0.78-0.91). The

variables associated with psychological violence, such as insults, teasing or harassment, represent the highest probability of deriving suicidal ideation (OR: 1.84, 95% CI: 1.69-2.01). The variables that are related to acts that constitute severe

sexual abuse, such as rape, show a significant incidence in the probability of the emergence of suicidal ideation. In the case of serious sexual abuse, the OR is 1.56 (95% CI: 1.3-1.89) and for rape, the OR is 1.74 (95% CI: 1.38- 2.2).

TABLE I  
 PERCENTAGES OF SUICIDAL IDEATION AMONG YOUNG PEOPLE ACCORDING TO DEMOGRAPHIC VARIABLES

Sample characteristics	N	%	Suicidal ideation: "I think it is not worth living"	P	% Suicidal ideation: "I think it is not worth living"
Total sample	15454	100	4426		28.6
<i>Gender</i>				<0.001	
Male	7631	49.4	1658		37.5
Female	7823	50.6	2768		62.5
<i>Age</i>				<0.001	
12 years	1374	8.9	396		8.9
13 years	2887	18.7	842		19
14 years	3025	19.6	913		20.6
15 years	2901	18.8	858		19.4
16 years	3019	19.5	820		18.5
17 years	1818	11.8	464		10.5
18 years	371	2.4	118		2.7
19 years	59	0.4	15		0.3
<i>Grade</i>				0.001	
7th elementary	3287	21.3	1018		23
8th elementary	3351	21.7	992		22.4
1st secondary	2938	19	901		20.4
2nd secondary	2967	19.2	900		20.3
3rd secondary	2911	18.8	715		16.2
<i>Type of school</i>				0.001	
Public	6515	42.2	1972		44.6
Subsidized	8237	53.3	2324		52.5
Private	702	4.5	130		2.9

TABLE II  
 PERCENTAGES OF SUICIDAL IDEATION AMONG YOUNG PEOPLE ACCORDING TO DEMOGRAPHIC VARIABLES

Variables	OR (95% CI)	OR adjusted (95% CI)	Interaction p
Gender			
Female	1.97 (1.84-2.12)	1.49 (1.37-1.62)	<0.001
Age	0.97 (0.95-1)	1.13 (1.08-1.19)	<0.001
Grade			
7th elementary	1.07 (0.96-1.18)	1.19 (1.06-1.35)	0.004
1st secondary	1.05 (0.94-1.17)	0.77 (0.68-0.87)	<0.001
2nd secondary	0.88 (0.79-0.98)	0.59 (0.51-0.69)	<0.001
3rd secondary	0.77 (0.69-0.87)	0.42 (0.35-0.5)	<0.001
Type of school			
Subsidized	0.91 (0.84-0.97)	0.84 (0.78-0.91)	<0.001
Private	0.52 (0.84-0.97)	0.5 (0.41-0.62)	<0.001
Polyvictimization			
Has anyone threatened to hurt you or hurt you and thought you really would?	2.28 (2.12-2.45)	1.33 (1.22-1.46)	<0.001
Have you ever been hit, attacked or threatened by someone with a similar characteristic of yours?	2.55 (2.33-2.78)	1.5 (1.36-1.66)	<0.001
Have you felt bad because a nearby adult has insulted you, told you bad or cruel things, or did not love you?	3.05 (2.84-3.28)	1.84 (1.69-2.01)	<0.001
Has a close adult hit you, kicked you or physically harmed you in any way?	2.31 (2.14-2.49)	1.41 (1.29-1.53)	<0.001
Has a single child or teenager hit you or attacked you physically?	1.5 (1.4-1.61)	0.92 (0.84-1)	0.05
Has a group of children or teenagers hit you or attacked you physically?	2.21 (1.98-2.46)	1.31 (1.15-1.49)	<0.001
Have you felt scared or bad because a group of children or teenagers insulted you, said unpleasant things, did not want to join you or ignored you?	2.39 (2.23-2.57)	1.32 (1.21-1.44)	<0.001
Has someone hurt your feelings by saying or writing something sexual about you or your body, not to mention that it happened to you through the internet, cell phone or other electronic means?	3.09 (2.77-3.44)	1.39 (1.23-1.57)	<0.001
Did any adult you know touched or tried to touch your private parts without you agreeing or forced you to touch their private parts?	3.9 (3.3-4.6)	1.56 (1.3-1.89)	<0.001
Has someone forced you to have full sex with penetration?	4.21 (3.43-5.18)	1.74 (1.38-2.2)	<0.001
Has anyone used the Internet to annoy you, harassed you, spread malicious rumors, or share videos or images about you?	2.23 (2.06-2.41)	1.13 (1.02-1.24)	0.02
Has anyone used the Internet to ask sexual questions about you or tried to chat with you about sex, making you feel uncomfortable?	2.45 (2.24-2.67)	1.24 (1.11-1.37)	<0.001
Pseudo R2	0.17		

## V. DISCUSSION

The main finding of this study refers to the significant proportion of young people who manifest suicidal ideation reaching 28.6% of the sample of the first National Survey of Polyvictimization. These data are consistent with the findings of several pieces of research carried out in Chile [14]. Likewise, as detailed in the international literature, gender is a determining factor in episodes of suicidal ideation [8], being significantly higher among women, particularly in the Chilean reality, where this phenomenon reaches 62.5% of women.

Regarding age and its incidence in suicidal ideation, the results of this study show that the largest proportion of young people who experience this phenomenon are 14 years old, which is slightly different from the findings of previous studies in Chile, which it places at 15 years the incidence with respect to suicidal ideation [20]. The age range between 13 and 16 years is the segment that shows the highest incidence of suicidal ideation, which contradicts the evidence provided by the work of [20] that identified the range of 10 to 13 years the highest incidence of suicidal ideation. These findings are contradictory with the year in which young people present a higher prevalence of suicidal ideation, as this phenomenon increases in the seventh year of basic education (23%) even though among all the courses suicidal ideation is proportionally distributed.

Similarly, children studying in private subsidized and municipal institutes show a higher proportion of suicidal ideation (97%) between the two types, being higher in subsidized schools (52.5%). These results are in line with the results of the research carried out in Chile. Polyvictimization, on the other hand, has a fundamental incidence in suicidal ideation. Although there are no studies in Chile regarding the link between the effect of various types of victimization and feelings related to suicidal behavior, the international literature reveals a significant correlation between these types of event and suicidal ideation among young people. As concluded in the work of [8], episodes of polyvictimization affect suicidal ideation.

The results of the present study indicate a significant correlation between facts related to psychological violence, serious sexual assaults and physical attacks and feelings associated with suicidal thoughts. In this way, girls who are in seventh-grade and first-secondary-grade, attend to subsidized private schools, and are aged between 13 and 16 years old are more likely to experience suicidal ideation. This probability increases significantly if they have also experienced physical, psychological and sexual violence.

## VI. CONCLUSION

Polyvictimization has a significant influence on the emergence of suicidal thoughts among young Chileans. Demographic factors and exposure to diverse victimization experiences increases the probability of suicidal ideation. In addition, women are more likely to have suicidal thoughts, increasing these values at a later age. Likewise, young people who study in subsidized schools have greater options to

develop suicidal ideas. These findings can be useful to develop intervention initiatives, especially in relation to young people who have undergone polyvictimization, in order to mitigate emotional consequences that may result in eventual suicides. Future research should delve into specific elements of polyvictimization episodes, identifying levels of exposure, time and severity of events.

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