# Poly-victimization, resilience, and suicidality among adolescents in child and youth-serving systems

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## Abstract

The purpose of this study was to examine the relationship between poly-victimization, resilience, and suicidality among adolescents in child and youth-serving systems. The Juvenile Victimization Questionnaire, the Youth Self-Report, and the Adolescent Resilience Questionnaire were used to assess victimization, suicidality, and resilience respectively. The study was conducted in a sample of 227 adolescents (145 males and 82 females), aged 12 – 17 years ($M$ = 15.24; $SD$ = 1.56). Poly-victimization (defined as eight or more victimizations) during lifetime was reported by 61.7% of the sample, and some kind of suicidality by 39.6% . The logistic regression analysis indicated that suicidality was twice as likely in poly-victims than in the other respondents. In the second step, the six resilience domains (self, family, peers, school, community and educators) were added. The self-domain was statistically significant ($p$ < .01); it was associated with a lower probability of the occurrence of suicidality ($OR$ = 0.32; 0.14-0.70) and explained significant added variance in suicidality over and above measures of poly-victimization. In depth analysis of the subtypes that make up the self-domain found emotional insight to be statistically significant ($OR$ = 0.82; 0.73-0.92). The findings highlight the importance of self-resources which should be regarded as a key intervention objective in adolescents with suicidal behaviors and poly-victimization.



***Key words*:** poly-victimization; resilience; suicidality; juvenile justice; child welfare system.

## Introduction

Youth interacting with the child and youth-serving systems are at high risk of experiencing adverse outcomes across the suicide continuum, ranging from suicidal ideation to death by suicide (Evans et al., 2017; Stokes, McCoy, Abram, Byck, & Teplin, 2015). In fact, suicidality among adolescents and young people overall is a substantial public health concern, constituting the second leading cause of death in the world in the 15-29-year age group (WHO, 2014).

The risk factors associated with adolescent suicidal behavior are multiple, complex, and interrelated. Among the best-documented findings from research on suicide behavior in adolescence are experiences of victimization. Recent research suggests that poly-victims (i.e., children and adolescents who experience multiple types of victimization) suffer more adverse consequences, including suicidal behaviors, than those who experience only one form of victimization (Chan, 2013; Soler, Segura, Kirchner, & Forns, 2013; Turner, Finkelhor, Shattuck, & Hamby, 2012). For example, in a community sample of Spanish adolescents, Soler et al. (2013) found that the polyvictim group reported significantly more suicidal phenomena than the victim and nonvictim groups.

Young people in child and youth-serving systems (e.g., juvenile justice and child welfare systems) have been shown to experience high rates of multiple types of victimization (Cyr et al., 2012; Ford, Elhai, Connor, & Frueh, 2010), and to be at greater risk of emotional and behavioral problems which may include suicidal behavior (Kretschmar, Tossone, Butcher, & Flannery, 2016). However, not all young people who have been victims and who are involved in these systems manifest suicidal behavior. This difference can be attributed to other personal or contextual factors, which

can play a protective role and help overcome adverse situations – a concept commonly known as resilience (Gartland, Bond, Olsson, Buzwell, & Sawyer, 2006).

Some studies have suggested that demographic variables such as gender, race/ethnicity, or country of origin are related to suicidality. For example, female gender has been associated with more suicide ideation and attempts (Chavira, Accurso, Garland, & Hough, 2010; Wasserman & McReynolds, 2006). Although the results are not conclusive, a statistically significant relation between ideation/attempts in non-Hispanic whites has been suggested (Stokes et al., 2015). One meta-analysis of 47 studies in adolescent samples found that the country of origin played an important role in suicidal behavior (for example, in the United States, the association between bullying and suicidal behavior was significantly higher than in other countries, Holt et al., 2015). Finally, significant demographic predictors of suicidal behavior also include affiliation with the public sectors of care (Chavira et al., 2010) since youth involved in the child welfare system present higher rates of suicidal behaviors than those in other sectors (e.g., juvenile justice).

***Poly-victimization, resilience and suicidality***

In recent years, suicidality and poly-victimization have tended to be studied from a risk-based approach, which has focused on clarifying the risk factors associated with increased rates of these phenomena (Chan, 2013; Soler et al., 2013). However, more recently it has been suggested that this risk-based approach may not provide the most effective pathway towards the prevention of suicide (Johnson, Gooding, Wood, & Tarrier, 2010; Osman et al., 2004; Rutter, Freedenthal, & Osman, 208) and of experiences of victimization (Hamby, 2014). Protective factors (i.e., resilience) against adolescent suicidal behavior also need to be studied.

Recognizing that factors of vulnerability do not provide a complete explanation

for suicidal behavior, some studies have explored protective factors associated with a reduced likelihood of suicidality (e.g., Johnson et al., 2010; Perkins & Jones, 2004). Indeed, factors such as general social support (Joiner et al., 2009; Panagioti, Gooding, Taylor, & Tarrier, 2014), family support (Perkins & Hartless, 2002), higher peer support (King & Merchant, 2008), and parents' or guardians' comprehension of problems and worries (Cheng et al., 2009) have been shown to lower the risk of adolescent suicidal behavior.

Resilience may be one such protective factor against suicidality. Resilience has been defined as the capacity for successful adaptation to change, a measure of stress coping ability or emotional stamina, the character of hardiness and invulnerability, or the ability to thrive in the face of adversity or recover from negative events (Johnson et al., 2010; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003; Osman et al., 2004; Rutter et al., 2008). Accordingly, the present study conceptualizes resilience as a modifiable state, in which various personal, family, social and contextual factors contribute to increasing resistance to mental health problems despite encounters with stressful or adverse events (Gartland et al., 2006; Tummala-Narra, 2007).

More specifically, research has identified a number of factors of resilience associated with suicidal behaviors. For example, Osman et al. (2004) hypothesized that positive beliefs concerning emotional stability, social resources and self-esteem would confer resilience to suicide. Other factors include positive-internal attributional style (Chang, Lin, & Lin, 2007; Hirsch & Conner, 2006; Hirsch, Wolford, LaLonde, Brunk, & Parker-Morris, 2009), optimism about the future (Hirsh et al., 2009), coping and problem solving (Grover et al., 2009), temperament and positive emotional self-regulation (Tamas et al., 2007), and problem-solving confidence (Esposito & Clum, 2002). With regard to the social and family environment, examples of protective factors

include perceived neighborhood support and family coherence (Banyard & Cross, 2008), and positive peer relationships (Esposito & Clum, 2002).

Studies conducted in the United States with residential care (Collin-Vézina, Coleman, Milne, Sell, & Daigeault, 2011) and community adolescent samples (Turner, Shattuck, Finkelhor, & Hamby, 2017) found that experiences of poly-victimization have a negative impact on resilience, reducing both social and personal resources. In Spain to date, a limited number of studies have suggested that resilience mitigates the effects of poly-victimization on mental health problems. For example, in a study with Spanish community adolescents, Soler, Kirchner, Paretilla, & Forns (2012) examined the relationship between the types of victimization experienced, self-esteem, and internalizing and externalizing symptoms. The authors reported that self-esteem acted as a mediator and moderator in blunting the impact of multiple victimization experiences on internalizing and externalizing problems. Another study conducted by Segura, Pereda, Guilera and Hamby (2017) examined the role of several resilience resources in the relationship between lifetime victimization and mental health problems in a sample comprising 125 adolescents (51.2% females, aged 12-17 years) from residential care facilities in Catalonia. Poly-victimization was associated with fewer resources and with an increased risk of mental health problems, and the domains self, school, and peer support moderated the relationship between victimization and externalizing symptoms. Adolescents with fewer self-resources and less school support reported more externalizing symptoms, and those with more peer support also reported greater externalizing problems.

Although these studies contributed important insights into the link between poly-victimization, resilience, and psychopathology, it appears that resilience has not been

examined directly in relation to suicidal behavior in adolescents at child and youth-serving systems in Spain.

### *Aim of the study*

The aims of this study were (a) to examine the relationship between poly-victimization, resilience, and suicidality among adolescents in child and youth-serving systems in Spain and, (b) to determine the differences between adolescents who had suicidal behaviors in the last 6 months and adolescents who did not in relation to demographic characteristics, poly-victimization and resilience. We hypothesized that: (1) lifetime poly-victimization would be a predictor of suicidality (Soler et al., 2013). Moreover, variables such as social and personal resources would be relevant since they contribute to resilience domains in adolescents with suicidal behaviors (Joiner et al., 2009; Osman et al., 2004); (2) in the light of the literature (Holt et al., 2015), differences related to socio-demographic variables would be found between adolescents at child and youth-serving systems who had suicidal behaviors and those who did not; and (3) adolescents who had suicidal behaviors would be less resilient than adolescents who did not (Everall, Altrows, & Paulson, 2006; Grover et al., 2009).

## 1. Method

### *1.1. Participants*

The total sample comprised 227 adolescents (145 males and 82 females) recruited from two children and youth-serving systems (126 from the child welfare system and 101 from the juvenile justice system) in north-eastern Spain. All participants in the study were between 12 and 17 years of age ($M$ = 15.26; $SD$ = 1.54). The majority (58.6%) were born in Spain, 18.9% were born in Central or South America, 18.5% in Africa, 3.1% in other European countries, and 0.9% in Asia (see Table 1).

The initial child welfare system sample comprised 129 adolescents. Three cases

were excluded from the study due to the lack of information from any of the questionnaires. Finally, the sample comprised 126 (61 males and 65 females) recruited from 18 residential facilities (13 long-term and 5 short-term). One hundred and one adolescents were recruited from three detention centers and five open regime centers: 82 males and 19 females (81.2% and 18.8% respectively).

### *1.2. Procedure*

A cross-sectional study was conducted and the participants were selected by convenience sampling. This study was carried out at the request of the Department of Social Welfare and Family Affairs and the Department of Justice, during the 2013 calendar year. The Institutional Review Board of the University of Barcelona approved the study which was carried out in accordance with the basic ethical principles of the Declaration of Helsinki (World Medical Association, 2008). No financial assistance or compensation was offered to participants.

Twenty-six centers were subsequently contacted by the child welfare systems. From these, 18 short- and long-term residential facilities were recruited. These centers care for children from 3 to 18 years' old who have been removed from their homes due to precarious family situations.

For the selection of the participants from the juvenile justice system, 5 open-media teams and 5 juvenile justice detention centers were selected. Only two detention centers declined to participate.

Prior to each interview, informed consent was requested from the adolescents and their parents and/or legal guardians. The interviews were conducted individually and were carried out in rooms provided by the centers. All interviews were conducted in 2013. Adolescents with cognitive or language problems were excluded from the study.

Each interview was conducted by a collaborator trained by the research group in

developmental victimology and interviewing techniques, and in the administration of the protocol (UNICEF, 2012).

### *1.3. Measures*

***1.3.1. Sociodemographic data.*** Sociodemographic information from participants and their parents (e.g., age, gender, country of birth, and educational level and occupation of parents) was obtained using a data sheet created for this study.

***1.3.2. Victimization experiences.*** The Juvenile Victimization Questionnaire (JVQ; Finkelhor, Hamby, Ormrod, & Turner, 2005) evaluates 36 different types of victimization against children and youth (between 8 and 17 years old) grouped into six modules: conventional crime (9 items), caregiver victimization (4 items), victimization by peers and siblings (6 items), sexual victimization (6 items), witnessing and indirect victimization (9 items), and electronic victimization (2 items). For each item, the presence or absence of this victimization experience was scored as 1 or 0 respectively. In the current study, the interview version of the JVQ was translated into Catalan and Spanish and was used to assess victimization over the lifetime. The original version of the JVQ has shown adequate psychometric properties (Finkelhor et al., 2005). Evidence of the validity of the Spanish and Catalan adaptation of the JVQ has also been reported (Pereda, Gallardo-Pujol, & Guilera, 2016).

***1.3.3. Resilience.*** The Adolescent Resilience Questionnaire (ARQ; Gartland, Bond, Olsson, Buzwell, & Sawyer, 2006) is a self-report instrument which aims to assess resilience from a multidimensional perspective including 12 scales grouped into five relevant domains for adolescents: 1) self (i.e., confidence, emotional insight, negative cognition, social skills, and empathy/tolerance scales) (40 items); 2) family (i.e., connectedness and availability) (11 items); 3) peers (i.e., connectedness and availability) (15 items); 4) school (i.e., supportive environment and connectedness) (16

items); and 5) community (i.e., connectedness) (6 items). The instrument comprises 88 items which are responded to on a five-point Likert-type scale from 1 (almost never) to 5 (almost always). The original version (Gartland et al., 2006) and the Spanish and Catalan version (Guilera, Pereda, Paños, & Abad, 2015) of the ARQ have both shown adequate psychometric properties. The domain "educators" was created in previous research by our group (Segura et al., 2017) and in the present study was used to measure perceived support from care workers (7 items). Cronbach's alpha for the new factor was 0.87. The full scale obtained a reliability of 0.87 (Cronbach's alpha).

***1.3.4. Suicidality.*** Two items from the Youth Self-Report (YSR; Achenbach & Rescorla, 2001, translated by the Unit of Epidemiology and Diagnosis in Developmental Psychology at the Universitat Autònoma de Barcelona) were used to assess self-harm behavior and suicide ideation respectively: item 18 ("I deliberately try to hurt or kill myself") and item 91 ("I think about killing myself"). The YSR is a self-report instrument that measures psychological distress in children and adolescents aged between 11 and 18 years. Participants are asked to indicate on a 3-point Likert scale ranging from 0 (not at all) to 2 (very often) how often they had experienced each of the item statements within the last six months. The instrument has been shown to have adequate psychometric properties in different countries (Ivanova et al., 2007), including Spanish samples (Zubeidat, Fernández-Parra, Ortegal, Vallejo, & Sierra, 2009).

### *1.4. Data analysis*

To identify the poly-victim group of adolescents, we used the threshold of 8+ victimizations established by Pereda, Guilera, and Abad (2014) in a Spanish community sample. For the purpose of this study, the variable "suicidality" was created, which refers to the presence of any suicidal phenomena, either suicidal ideation or self-harm behavior. Therefore, suicidality in the last six months was analyzed based on responses

to items 18 and 91 of the YSR, excluding adolescents with missing data on either of these items (1.3% of the sample). Suicidal ideation (item 91) and self-harm behavior (item 18) were recorded as present (score of 1, "somewhat or sometimes true," or 2, "very often or often true") or absent (score of 0, "not at all").

The association between the group (no suicidality and suicidality) and sociodemographic characteristics and poly-victimization was analyzed using the Chi-square test, while the Student's *t* test was used in the case of age and domains of resilience. Subsequently, the extent to which poly-victimization and resilience might predict suicidality (any suicidal phenomenon) was examined by means of logistic regression, controlling for gender and age. In the first step, gender (0 = male, 1 = female), age, and poly-victimization (0 = no, 1 = yes) were entered into the model. In the second step, the six resilience domains were added in order to establish which ones mitigate the effects of poly-victimization on suicidality. Because the self-domain was a significant factor in the predictive model, the subtypes (i.e., the scales) that made up the self-domain were analyzed by means of logistic regression. In both analyses, resilience domains and scales were centered around their means. The data were analyzed using IBM-SPSS 21.

## 2. Results

### *2.1. Descriptive statistics of study variables*

Table 1 presents descriptive data for sociodemographic variables (i.e., age, gender, child services and country of origin), poly-victimization, resilience domains (i.e., self, family, peers, school, community, and educators) and suicidality. In all, 61.7% ($n$ = 140) of the sample presented eight or more different kinds of victimization (i.e., poly-victimization). As for suicidality, 39.6% ($n$ = 90) of adolescents reported some kind of suicidal phenomena (i.e., suicidal ideation or self-harm behavior) in the

last six months. The scores obtained with the ARQ were moderate in the six resilience domains.

-Insert Table 1-

### *2.2. Sample characteristics of suicidality and no suicidality groups*

Table 2 presents sample characteristics and bivariate relationships in youths who did and did not express suicidal behaviors. There were no significant associations between demographic variables and suicidality, while poly-victimization was significantly associated with suicidality ($\chi^2(1) = 7.02$, $p < .01$). Of adolescents with suicidal behavior, 72.2% were poly-victims, while 45.3% of adolescents who suffered fewer than eight types of victimizations did not show suicidal behavior.

The suicidality group presented lower scores in each resilience domain evaluated than the group without suicidal behaviors. Significant differences were found in almost all domains, including self ($t(223) = 5.04$, $p < .01$), family ($t(222) = 3.46$, $p < .01$), peers ($t(223) = 2.20$, $p < .05$), school ($t(216) = 2.33$, $p < .05$) and community ($t(221) = 2.91$, $p < .01$). Moreover, no statistically significant differences were found with respect to the perceived support from educators, tutors or staff at the care service ($t(224) = 0.30$; $p = .76$), with similar scores in the suicidality and no suicidality groups.

-Insert Table 2-

### *2.3. Relationship between poly-victimization and resilience with suicidality*

Table 3 shows the results of the analyses conducted to examine the contribution of personal and social factors (resilience domains) to the explanation of suicidality, with poly-victimization, gender and age included in the model.

In the first step, results indicated that poly-victimization was a significant predictor (Wald = 5.990; $p = .01$) of suicidality, as poly-victims were twice as likely to present suicidality ($OR = 2.13$; 1.12-3.90) as adolescents who suffered fewer than eight

types of victimization. In the second step, the self-domain was statistically significant (Wald = 8.157; $p < .05$); it was associated with a lower probability of the occurrence of suicidality ($OR = 0.32$; 0.14-0.70) and explained significant added variance in suicidality over and above measures of poly-victimization. In-depth analysis of the subtypes that make up the self-domain found emotional insight to be statistically significant ($p < .01$). The final model explained 20% of the variance in suicidality (Nagelkerke $R^2 = .201$). The Hosmer–Lemeshow goodness of fit test did not show statistically significant results in either step, indicating a good fit.

-Insert Table 3-

## 3. Discussion

There are four main conclusions to be drawn from the results of this study. First, poly-victimization emerged as a predictor of suicidality. Second, youth with suicidal behaviors presented lower resilience in different domains (i.e., self, family, peers, school, community) than youth without these behaviors. Third, protective factors associated with the individual (e.g., emotional insight) provided the most protection against suicidal behaviors. Fourth, our results suggest that suicidal behaviors in adolescents at child and youth-serving systems are not related to sociodemographic variables. The importance of this research derives from the fact that few studies have analyzed the variables of poly-victimization, resilience and suicidal behaviors in high-risk samples such as those at child and youth-serving systems, and none have been conducted in a south-western European country.

In general, 39.6% of child services adolescents reported suicidality in the last six months. This rate is similar to those in previous studies conducted in similar samples in other western countries such as the US (Anderson, 2011; Chavira et al., 2010), and higher than those recorded in a study with Spanish community adolescents using a

similar methodology (Soler et al., 2013).

Our first hypothesis was that lifetime poly-victimization would be a predictor of suicidality, and that variables such as social and personal resources would be relevant since they contributed to the resilience domain in adolescents with suicidal behaviors. The results partially confirm these hypotheses.

In the present study, adolescents with a history of poly-victimization exhibited higher levels of suicidal behaviors (i.e., suicidal ideation and self-harm behavior). These findings are consistent with previous research about the negative effects of multiple victimization experiences on the mental health of young people in child and youth-serving systems (Chan, 2013; Soler et al., 2013; Turner, Finkelhor, Shattuck, & Hamby, 2012), where poly-victimization also emerged as a predictor of suicidality.

Our results also suggest that protective factors associated with the individual are the most important for lowering the risk of adolescent suicidal behavior. Consistent with previous studies (Grover et al., 2009; Osman et al., 2004; Tamas et al., 2007), emotional insight, related to a greater tendency to think things through carefully before making decisions, and positive regulation of emotions were the factors associated with the lower risk of suicidal behaviors. Unlike Esposito & Clum (2002) we did not find that other protective factors related to the social context (i.e., school, peers, educators) were relevant in relation to suicidal behavior.

Violence in the case of poly-victims may occur in various contexts and may be perpetrated by various individuals. This violence rocks the foundations of trust that children and youth have in the world and in the people around them, and discourages them from seeking help and support from others (Turner et al., 2012). This is especially true of youth in child and youth-serving systems, and it may help to explain why the problems caused by poly-victimization can be alleviated only by the victims

themselves. We hypothesize that this mistrust in the world and in others around them creates the feeling that everyone has failed them and, therefore, they alone, using their own resources can ease the burden.

Another explanation for these findings, already mentioned by other authors, could be that resilience is multifaceted and its individual psychological constructs could confer resistance to specific risk factors. This possibility is backed by evidence demonstrating that certain resilience factors act more effectively as mitigators against specific risk factors than others. For example, general social support seemed to permanently mitigate sexual abuse (Banyard & Cross, 2008) and the capacity to resolve problems seemed to consistently alleviate stressful life events over a long period of time (Grover et al., 2009). However, each of these factors was less effective when the risk factor was changed. In our study, poly-victimization was only mitigated by one specific resilience factor, emotional insight. This finding now needs to be corroborated with longitudinal studies analyzing each one of the resilience domains associated with different types of victimization and poly-victimization.

The secondary hypothesis, namely that differences in sociodemographic variables would be found between adolescents at child and youth-serving systems who had suicidal behaviors and adolescents who did not, was not confirmed. Previous studies have found that females have higher rates of suicide attempts, while rates of death by suicide are higher in males (Chavira, Accurso, Garland, & Hough, 2010; Renaud, Chagnon, Turecki, & Marquette, 2005). Other studies have found that the country of origin (Holt et al., 2015) and contact with public care sectors (Chavira et al., 2010) have an important role in suicidal behavior. The discordance between our study and the specialized literature may be due to our small sample size, which does not allow a better comparison between both groups (i.e., those with/without suicidal behaviors).

The hypothesis that adolescents with suicidal behaviors would be less resilient than adolescents without not was confirmed. Previous studies have suggested that individuals who are high on resilience are able to face a high level of risk without developing suicidal thoughts and behaviors. Although resilience has generally been viewed as a psychological construct, environmental resources such as improved school environments and academic success have occasionally been included in the concept (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Our current study using the ARQ can help to identify adolescents who have personal characteristics associated with resilience (confidence, social skills, emotional insight and negative cognition) and who are positively engaged with their family, peers, school and community environments. This instrument can identify adolescents who show poor engagement in all or some of these areas and who may be vulnerable when facing adversity. Our results confirm that children and youth with suicidal behaviors exhibit lower scores for resilience domains. These findings are consistent with previous research on resilience in young people with suicidal behaviors (Everall et al., 2006; Grover et al., 2009). The sole exception was the domain “educators”, since there was no difference in the level of resilience in this domain between the two groups. A possible explanation may be found in previous studies, which have shown that these children and youths continue to be victimized by their parents during visiting days or even by the staff at the centers, even though they are under their guardianship (Cyr et al., 2012; Euser, Alink, Tharner, Van Ijzendoorn, & Bakermans-Kranenburg, 2014; Segura, Pereda, Abad, & Guilera, 2015). Consequently, we hypothesize that educators may not be perceived by these adolescents as figures of protection. If this is the case, in order to examine further whether resilience may impact suicidal behavior, future studies should apply a longitudinal perspective.

### 3.1. Limitations

Several limitations should be considered when interpreting the results of the study. The first drawback was the use of a measure of suicidal ideation and self-harm/suicidal behavior that is part of a larger screening instrument; using only a few items from the questionnaire to assess suicidality may have underestimated its prevalence. However, this instrument has previously been used in a study with Spanish adolescents (Soler et al., 2013) and so we were able to compare our results with samples of youth from the general population and the same geographical area. The second concern refers to the cross-sectional nature of the research, which limits the extent to which findings can be interpreted as evidence of a protective impact of resilience domains. To confirm the presence of this impact, it will be necessary to demonstrate that resilience can predict levels of suicidality over time when controlling for risk factors such as victimization events.

### 3.2. Practical implications

The findings of the present study have some practical implications. Further information is needed to help improve training, increase screening, and raise awareness of poly-victimization among practitioners and those working with children and youth in care services. This strategy would recognize a parallel concept, *poly-strengths,* which captures the number of resources and assets children (and their families) can use to help insulate them from violence or assist in coping and promoting well-being after victimization (see Hamby, Grych, & Banyard, 2018). Consequently, poly-strengths should be assessed in order to obtain an accurate picture of the factors that protect against victimization in children and adolescents.

Greater attention to poly-victimization and resilience factors will help to promote the safety and well-being of adolescents and increase the effectiveness of

suicide prevention and intervention strategies.

In the field of suicide prevention, *gatekeepers* are individuals who have primary contact with people at risk for suicide and identify them by recognizing suicidal risk factors (Department of Health and Human Services Office of the Surgeon General and National Action Alliance for Suicide Prevention, 2012). Gatekeeper programs provide training in identifying people at high risk for suicide and in referring these people for treatment or for supporting services as appropriate. For example, gatekeeper programs in child services could focus on training mentors and staff on suicide prevention, as well as training adolescents to act as guardians for their partners (e.g., Isaac et al., 2009).

### 3.3. Research implications

Longitudinal studies are needed in order to provide a prospective evaluation of the impact of resilience on suicidal behavior. It would also be interesting to determine whether different resilience domains (i.e., self, family, social support) act differently as protectors against specific risk factors (e.g., sexual abuse, poly-victimization).

### 3.4. Conclusions

Adolescent suicide behavior is a serious public health problem. Measures can be taken to prevent suicide by observing the factors significantly linked to suicidal behavior that either reduce the risk (i.e., self-domain/resilience) or increase it (i.e., poly-victimization). On the whole, these findings suggest that (i) self-resources, and their various facets, represent a key area for further research into suicide resilience, and (ii) aspects of self-resources need to be incorporated into interventions for suicidal behavior in child services. Steps could then be taken to identify adolescents with serious suicidal ideation and to intervene appropriately.

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Table 1

*Descriptive statistics of study variables*

| **Characteristics** | *n* | % | *M* | *SD* | Range (Minimum-Maximum) |
|---|---|---|---|---|---|
| Age | 227 | 100 | 15.26 | 1.54 | 5 (12-17) |
| Gender | | | | | |
| Male | 145 | 63.9 | | | |
| Female | 82 | 36.1 | | | |
| Child Services | | | | | |
| Child welfare | 126 | 55.5 | | | |
| Juvenile justice | 101 | 44.5 | | | |
| Country of origin | | | | | |
| Spain | 133 | 58.6 | | | |
| Other countries | 94 | 41.4 | | | |
| Lifetime poly-victimization | | | | | |
| No | 87 | 38.3 | | | |
| Yes | 140 | 61.7 | | | |
| Resilience | | | | | |
| Self | 225 | 99.1 | 3.24 | 0.46 | 2.30 (2.08-4.38) |
| Family | 224 | 98.6 | 3.39 | 0.99 | 3.82 (1.18-5.00) |
| Peers | 225 | 99.1 | 3.79 | 0.64 | 3.00 (2.00–5.00) |
| School | 218 | 96.0 | 3.41 | 0.76 | 3.63 (1.19-4.81) |
| Community | 223 | 98.2 | 3.22 | 1.02 | 4.00 (1.00-5.00) |
| Educators | 226 | 99.5 | 4.00 | 0.94 | 4.00 (1.00-5.00) |
| Suicidality | | | | | |
| No | 137 | 60.4 | | | |
| Yes | 90 | 39.6 | | | |

Table 2

*Sample characteristics for Suicidality Group and for No Suicidality Group*

| | No Suicidality (*n* = 137) | | Suicidality (*n* = 90) | | Statistic | |
|---|---|---|---|---|---|---|
| Characteristics | *n* | *%* | *n* | *%* | $\chi^2(df)$ | *p* |
| Gender | | | | | | |
| Male | 91 | 66.4 | 54 | 60.0 | 0.97(1) | .324 |
| Female | 46 | 33.6 | 36 | 40.0 | | |
| Child Services | | | | | | |
| Child welfare | 74 | 54.0 | 52 | 57.8 | 0.31(1) | .577 |
| Juvenile justice | 63 | 46.0 | 38 | 42.2 | | |
| Country of origin [a] | | | | | | |
| Spain | 85 | 62.6 | 48 | 53.3 | 1.70(1) | .192 |
| Other countries | 52 | 38.0 | 42 | 46.7 | | |
| Lifetime poly-victimization | | | | | | |
| No | 62 | 45.3 | 25 | 27.8 | **7.02(1)** | **.001** |
| Yes | 75 | 54.7 | 65 | 72.2 | | |
| | *M (SD)* | | *M (SD)* | | *t(df)* | *p* |
| Age | 15.23 (1.60) | | 15.32 (1.44) | | 0.46 (225) | .647 |
| Self | 3.36 (0.41) | | 3.06 (0.46) | | 5.04 (223) | **< .001** |
| Family | 3.57 (0.91) | | 3.12 (1.05) | | 3.46 (222) | **.001** |

| | | | | |
|---|---|---|---|---|
| Peers | 3.86 (0.61) | 3.67 (0.68) | 2.20 (223) | **.033** |
| School | 3.50 (0.73) | 3.26 (0.78) | 2.33 (216) | **.021** |
| Community | 3.38 (0.97) | 2.97 (1.05) | 2.91 (221) | **< .001** |
| Educators | 4.01 (0.96) | 3.98 (0.92) | 0.30 (224) | .761 |

Table 3

*Logistic regression analysis of the relationship between poly-victimization and resilience with suicidality*

| Variables | $\beta$ | $se(\beta)$ | $p$ | OR | 95% CI |
|---|---|---|---|---|---|
| Step 1 | Model $\chi^2(3) = 7.829, p < .051$ $R^2 = 0.05$ | | | | |
| Constant | 0.651 | | | | |
| Female gender | 0.31 | 0.29 | .286 | 1.37 | [0.77-2.43] |
| Age | -0.03 | 0.09 | .772 | 0.97 | [0.81-1.12] |
| Lifetime poly-victimization | **0.76** | **0.31** | **.014** | **2.13** | **[1.12-3.90]** |
| Step 2 (resilience) | Model $\chi^2(9) = 34.334, p < .001$ $R^2 = 0.20$ | | | | |
| Constant | 1.478 | | | | |
| Female gender | -0.08 | 0.33 | .801 | 0.92 | [0.48-1.76] |
| Age | 0.05 | 0.11 | .635 | 1.05 | [0.85-1.30] |
| Lifetime poly-victimization | 0.32 | 0.34 | .349 | 1.38 | [0.71-2.68] |
| Self | **-1.15** | **0.40** | **.004** | **0.32** | **[0.14-0.70]** |
| Family | -0.27 | 0.17 | .109 | 0.76 | [0.55-1.06] |
| Peers | -0.18 | 0.26 | .481 | 0.83 | [0.50-1.38] |
| School | -0.27 | 0.23 | .247 | 0.77 | [0.49-1.20] |
| Community | -0.21 | 0.16 | .197 | 0.81 | [0.60-1.11] |
| Educators | 0.22 | 0.19 | .238 | 1.25 | [0.86-1.81] |

| Step 2 (self) | Model $\chi^2(8) = 36.644$, $p < .001$ $R^2 = 0.34$ | | | | |
|---|---|---|---|---|---|
| Constant | 2.182 | | | | |
| Female gender | 1.13 | 0.47 | .016 | 3.11 | [1.23-7.82] |
| Age | 0.03 | 0.15 | .827 | 1.03 | [0.76-1.39] |
| Lifetime poly-victimization | 1.19 | 0.46 | .009 | 3.30 | [1.35-8.09] |
| Confidence | -0.04 | 0.06 | .541 | 0.97 | [0.86-1.08] |
| Emotional insight | **-0.20** | **0.06** | **.001** | **0.82** | **[0.72-0.91]** |
| Negative cognition | -0.06 | 0.06 | .310 | 0.94 | [0.84-1.05] |
| Social skills | 0.08 | 0.05 | .117 | 1.09 | [0.98-1.20] |
| Empathy/tolerance | 0.02 | 0.05 | .755 | 1.02 | [0.92-1.12] |

Note. The resilience domains were centered around their means.