Construction and Validation of the Contextual Victimization Questionnaire (CVCV) with Mexican Young Adults

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**ABSTRACT:** The object of this study was to design and validate a CVCV (Contextual Victimization by Community Violence) questionnaire, with the goal of identifying the frequency at which young adults have been contextual victims of crimes committed in the areas closest to their homes (neighborhood, recreational areas and school). Two groups of university students participated in this study: the first composed of 2,289 youths for the design and exploration of the factor structure of the questionnaire, and the second of 1,507 to confirm the factor structure and the goodness of fit of the model. The results indicate good psychometric properties for the items and for the questionnaire in general, as well as appropriate levels of reliability and validity.

**KEYWORDS:** Community violence, Victimization, Youths, Validity, Reliability

**INTRODUCTION**

The World Health Organization (WHO; cited by Organización Panamericana de la Salud, OPS; 2002) defines violence as: The deliberate use of physical force or strength whether in a threatening or effective manner, against oneself, other persons, a group or a community, which causes or is likely to cause injury, death, psychological damage, developmental disorders or deprivation (p. 4).

In this respect, despite the fact that information is scarce because the quantity and quality of data is deficient worldwide, it is estimated that 1.6 million people died violently in the year 2000, with young people aged 15 to 24 being the most affected (Krug, Dahlberg, Mercy, Zwi & Lozano, 2002; WHO, cited by OPS, 2002). Despite the fact that the rates of violence in 2012 show a reduction of 16% worldwide (WHO, 2014) it is still considered a serious public health problem since it affects children, adolescents, young adults, adults and the elderly. Given the diversity of violent acts, for their analysis one should focus on the common features and relationships between the various types of violence, the following classification is proposed depending on the perpetrator of the violent act (WHO, cited by OPS; 2002):

- Self-inflicted violence: Includes suicidal behavior and self-harm.
- Collective violence: Subdivided into social violence (mass violence, terrorism and collective acts of hatred, political violence (wars) and economic violence (group looting for economic profit).
- Interpersonal violence: Subdivided into two subcategories, first, family or partner violence, which is usually occur, but not always, at home. Secondly, community violence that refers to violence that occurs between people who are not relatives and who may or may not know each other and usually happens outside the home, therefore does not include domestic violence or verbal abuse.

Specifically, community violence encompasses all types of crime (assault, rape, robbery, kidnapping, drugs, exposure to firearms, knives and homicides) (Kennedy and Ceballo, 2014;
Reviewing various databases (ProQuest Social Science, PRISMA, PsycINFO) to identify the questionnaires used to assess exposure, community violence in young adults was found to the Survey of Exposure to Community Violence (SECV) (Richters & Saltzman, 1990), is notably the most widely used to assess exposure to community violence in teens and adults, and includes victimization reagents at home, school or neighborhood (i.e., persecutions, beatings or shootings, stabblings, murders or rapes). The scale used on adults reports an internal consistency that ranges from acceptable ($\alpha = 0.74$) to excellent ($\alpha = 0.85$). This survey to include items that explore exposure in the home does not meet the characteristics of happening in public spaces outside the home and does not explore the exposure through hearing about violence (Foeger, Rosenberg and Mercy, 1995; WHO, 2002). Cooley, Turner and Beidel (1995) designed and published the Childrens Report of Exposure to Violence (CREV) aimed at young people from 9 to 18 years, which consists of 29 items that measure exposure through victimization, direct observation, those reported by others and, unlike the previous ones, includes direct observation on television. The questionnaire reports an acceptable internal consistency ($\alpha = 0.78$). The test-retest reliability was 0.75 for the Total score ($p<0.01$). This scale includes exposure through direct exposure on television, however this form of exposure could not be considered direct or community. The Screen for Adolescent Violence Exposure (SAVE) (Hastings & Kelley, 1997) is a self-reporting scale consisting of 32 items assessing frequent exposure to community violence in three different areas: school, neighborhood and home. This scale includes direct exposure to life-threatening situations, it also includes having heard that others close to them had experienced life-threatening situation and finally, having experienced or observed violent or aggressive behaviors that were not life-threatening (i.e., physical or verbal abuse). The scale shows excellent internal consistency indexes (school $\alpha = 0.93$, home $\alpha = 0.94$ and neighborhood $\alpha = 0.95$). The authors also report the results of the confirmatory factor analysis where a three-factor model is reported (school, neighborhood and home). The model suggests an appropriate adjustment: $\chi^2 = 722.96$, $p<.001$, $CFI = 0.90$. This questionnaire, although it includes listening to community violence, does not treat it as a different category since it includes it in the category of witness. Likewise, an adjustment of the scale of exposure to community violence was made (Richters and Saltzman, 1990) reducing it to 18 items divided into two subscales: one that reflects the degree of exposure to community violence as a direct victim during high school years and one that reflects exposure to community violence as a witness during the same period. (Rosenthal, 2000, Rosenthal & Wilson, 2003; 2006).

With respect to the latter, instructions specify that youngsters should not include things they have seen on television, heard on the radio, read in newspapers or witnessed at home. This adjustment shows a good internal consistency ($\alpha =0.88$). This scale does not explore the exposure through hearing about community violence which is an essential feature in contextual victimization (Echeburúa, 2004). Another adaptation of the SECV was designed by Schwartz and Proctor (2000) who created the Community Violence Exposure (CVE) whose 25 items focus on events that occur in public places (i.e., work, school) and exclude acts that occur at home or those committed by family members. The scale has a good internal consistency ($\alpha = 0.88$). This adaptation, despite circumscribing

In this sense, when analyzing the main questionnaires (for a more exhaustive list see De Cou & Lynch, 2015) used to evaluate exposure to community violence in adults, it was found that most questionnaires were designed for children and teenagers.
community violence in the public sphere, leaves aside the fact of hearing about violence as a form of exposure. Orue and Calvete (2010) developed the Violence Exposure Questionnaire (CEV) which consists of 21 items that measure direct and indirect victimization in four contexts: school, street, home and TV. The Cronbach coefficients were 0.73, 0.78, 0.71 and 0.77 respectively for the observation of violence in the school, the neighborhood, the home and the TV, and 0.79, 0.75 and 0.80 for the victimization in the school, the neighborhood and at home, in the case of the exhibition to the TV violence, there are no items referring to victimization. The confirmatory factor analysis showed a good fit, $\chi^2 = 183, p<.001$, RMSEA = 0.067, NNFI = 0.92, CFI = 0.93. This questionnaire includes items that explore the exhibition in the home which is not a public place and the exhibition through television which is not considered a community. As it can be seen, there are different measures to evaluate exposure to community violence, most of which are more than ten years old and, except for the one designed by Orue y Calvete (2010), there is only the English version. Another element to highlight is that they are based on different definitions of community violence. Some authors use the term community as a synonym of neighborhood, excluding family and TV, and others include violence at home, school and TV (Guerra, Huesmann & Spindler, 2003). Guterman, Cameron & Staller (2000), recommend two things for studies of community violence: the first is that the definition should include the meaning of community, and in the case of this study, public environments closest to the people outside the home; and secondly, it must show the type of violence, including domestic, partner and school (Aisenberg & Herrenkohl, 2008; De Cou & Lynch, 2015), and, in this case, all types of crimes (Forge et al, 1995; Fowler et al, 2009; Kennedy & Ceballo, 2014; Krug et al., 2002; Scarpa et al, 2006; WHO, cited by OPS, 2002). On the other hand, researchers in this area have conceptualized exposure by being an eye witness and exposure through being a direct victim as separate constructs given their different consequences. In general, the questionnaires for exposure to community violence include questions about whether the subject witnessed or was a victim of violence. They also normally have questions of what is usually called “indirect exposure” which includes having a close relative who has been a victim when the person was absent (Hamby & Finkhelor, 2001), therefore, personal victimization and witnessing violence are the two most explored categories and have been clearly defined. Eitle & Turner (2002), Scarpa, Hurley, Shumate & Haden (2006), Brennan, Molnar & Earls (2007), Elsaesser, Sung & Voisin (2016), introduce a third exposure study category which consists of hearing about acts of community violence, arguing that the mere fact of hearing about violence very close to home has negative psychological impacts on persons and the above corresponds to the contextual victimization described by Aisenberg & Herrenkohl, 2008; Kennedy & Ceballo, 2014; De Cou & Lynch, 2015. Thus, in their study, Eitle & Turner (2002) used 5 questions about having witnessed violence or hearing about violent crimes in their community, which can predict mental health problems in young adults (i.e. They were told someone they knew had been shot) last year and throughout their lifetime; the authors do not show the reliability of the subscale. Scarpa et al. (2006) used 14 items from the Survey of Exposure to Community Violence (Richters and Saltzman, 1990) that explore having heard about acts of violence in their communities and the subscale shows a good internal consistency ($\alpha=0.86$). Brennan et al. (2007), after showing empirically that there are three routes of exposure to community violence (victimization, witnessing and hearing about violence) propose a reduced version of their scale of exposure to violence that consists of 10 items that explore direct victimization, 10 items that explore being a witness and 5 items that explore having heard about violence; the same authors mention that the small number of responses affect internal consistency, which is evident in the subscale hearing about violence ($\alpha = 0.50$) so they propose to add more items in order to have an questionnaire to research the subject. Finally in their study, Elsaesser et al. (2016), include three responses on hearing about acts of violence in the community, and the subscale shows a deficient internal consistency ($\alpha = 0.74$). As seen, there are three possible forms of being exposed to community violence, as a direct victim, as an indirect victim or witness, and as an affected or contextual victim that, although in the context of exposure to community violence are strongly interrelated and they belong to the same construct, contextual victimization in particular requires more research in order to evaluate its future impact on mental health. This is because despite the fact that the few studies that have examined the influence of this type of violence indicate an adverse impact on young people’s mental health, most studies ignore the influence of this third type of exposure to community violence (Elsaesser, 2018). Due to the above, this study intends to fill the literary gap by clearly defining what is considered community violence, addressing an understudied population such as young adults and exploring a rarely studied phenomenon such as contextual victimization, therefore, the goal of the present study was to design and validate a questionnaire for young adults on contextual victimization of community violence.

**METHODS**

**Participants**

The present study included two samples. The first was to build and explore the internal consistency of the contextual victimization questionnaire in cases of community violence using 2,289 volunteer students from 11 universities in different regions of Mexico, 18 to 25 years old with an average of 20 (S.D. = 2.1) years, of which 931 were women and 1,358 were men. The second sample was designed to carry out the questionnaire’s confirmatory factorial analysis using 1,507 volunteer students from four universities in the northern and central regions of Mexico, between 18 and 25 years with an average of 21 (S.D. = 2.2) years, of which 995 were women and 512 men. All participants were volunteer students with diverse careers, Mexican, Spanish-speaking and of all socioeconomic status (high level 7.2%, medium-high level 14%, typical and emerging middle level typical 53.8%, low level 25%) and residents in states of the republic which are considered violent.

**Measures**

For this study, the Contextual Victimization of Community Violence (CVCV) questionnaire was specifically designed in Spanish, taking into account the stages for developing the measuring tools (Muñiz & Fonseca-Pedrero, 2008). Regarding the content of the items once the variables of community violence and contextual victimization were operationalized the National
Survey of Victimization and Perception of Public Safety (Instituto Nacional de Estadística y Geografía, 2016) was used to consult the main crimes committed in the communities the students belonged to and ask about them. Examples of exposure to crimes were theft, armed robberies, shootings, kidnappings, murders. In terms of format, the self-reporting questionnaire was selected following the recommendations of Hamby and Finkhelor (2001), who recommended this because victimization is a sensitive subject and victims are reluctant to speak on their own behalf; additionally, due to its simplicity and ease of use, self-reporting allows for evaluating a large number of people simultaneously, is low-cost, unobtrusive, and may be done anonymously.

Because few questionnaires have been given to young adults, this population was chosen because they participate in more activities away from home due to their ages and therefore, may be more exposed to community violence committed by strangers. Two procedures were used to verify the validity of the contents and the applicability of the first version: (a) five experts were asked to participate and analyze the effectiveness of the items according to theoretical dimensions and to eliminate confusion; (b) a pilot study was done using a sample of 200 young university students in order to eliminate items that were unclear.

The final version was a questionnaire with 40 line items with five response options ranging from “never happened” to “very frequently happened to me in the last year”.

**Procedure**

After obtaining the approval of the respective ethics commissions, the researchers proceeded to request student volunteer participation who, after signing an informed consent document, answered the questionnaires which were written in Spanish used in Mexico. The paper and pencil questionnaires were given collectively in the various classes the students were attending and filling it out took 20 to 30 minutes. The confidentiality of the data was ensured by assigning a folio to each completed questionnaire without including the student’s name.

**RESULTS**

The results of the exploratory factor analysis indicate that the Kaiser-Meyer-Olkin measurement of sampling adequacy was .94 and the Bartlett’s Test of Sphericity was 17,367.86 (p = .001) which provides additional evidence that the correlation matrix was adequate for the factor analysis. When the Exploratory Factorial Analysis (EFA) was carried out, 6 items were eliminated because they shared factorial loads in two factors. Of the remaining 34 items, 5 factors with eigenvalues greater than one were extracted. When the EFA was performed, 6 items were eliminated due to shared-load factors in two factors; of the 34 remaining items, 5 factors with eigenvalues greater than one were removed. The items of the extracted factors show factorial loads that are in a range of .50 to .81; the total of the variance explained by the 5 factors was 59.52%, with a .94 Cronbach alpha. The first factor contains items regarding hearing about various types of crimes committed in any community setting (i.e. I have heard that in places where I go to have fun, someone was shot). This factor explains 39.10% of the total variance and contains eight items that evaluate non-witness contextual victimization with 90 alpha. The second factor contains items about having been an eyewitness or witnessed various types of crimes in any community setting (i.e. I have seen how drugs are trafficked in places I hang out) and with an alpha of .85 explains 7.28% of the total variance and with seven items representing having witnessed contextual victimization (witnessing community violence against strangers). The third factor contains items regarding hearing about the perpetration of various types of crimes in the youth’s neighborhood (i.e. I heard that someone was kidnapped in my neighborhood). Contains eight items related to contextual victimization in the neighborhood and explains 5.45% of the total variance with an alpha of .88. The fourth factor contains items refer to having heard about criminal acts in entertainment venues that young people frequent (i.e. I’ve heard that in places I go often, assaults without weapons are carried out) with an alpha of .86 explains 4.64% of the total variance. Finally, the fifth factor contains items about having heard of various types of crimes committed at the schools young people attend (i.e. I have heard that someone in my school has been shot) explains 3.04% of the total variance.

**DISCUSSION**

This study’s most relevant contribution was the creation of a specific instrument to measure the frequency of contextual
victimization of community violence in young adults, which makes it different from questionnaires like Richters & Saltzman, 1990; Cooley et al., 1995; Hastings & Kelley, 1997; Rosenthal, 2000; Schwartz and Proctor, 2000; Orue and Calvete, 2010; that although they have been used in adult studies they were originally designed for children and adolescents. Likewise, allowed in the first place clarify the construct of community violence in the sense that it is where criminal acts occur in the closest surroundings, but are outside people’s homes (Forge, Rosenberg & Mercy, 1995; Scarpa et al., 2006), namely, the neighborhood, recreational places and schools. Second, it showed evidence that contextual victimization exists, which consists of hearing about violent events that occurred in public environments closest to individuals (Brennan et al., 2007; Eitle & Turner, 2002; Elsaesser et al., 2016; Scarpa et al., 2006). The above could be verified when performing the CFA, the model leaves out one of the subscales called face-to-face victimization that emerged in the EFA and whose items would correspond to the witness category since it contained questions about having witnessed robberies, kidnappings, drug trafficking and beatings among other violent crimes. The results obtained revealed the appropriate psychometric properties of the items and the reliability and validity of the Contextual Victimization by Community Violence (CVCV) Questionnaire scores. The analyses provide evidence of the document structure, with four unifactorial sub-scales that are consistent with theoretical substantiations; also worthy of mentioning is the questionnaire’s overall satisfactory internal consistency index and its sub-scales. The CVCV Questionnaire shows advantages over others that are used to measure contextual violence (Brennan et al., 2007; Eitle & Turner, 2002; Elsaesser et al., 2016; Scarpa et al., 2006), first because it shows better internal consistency indexes, and second, because it is a wide questionnaire, allows confirmatory factor analysis to confirm the operationalization of the construct to be studied (Herrero, 2010). The VCVC questionnaire is of particular relevance since it will allow to distinguish in the future the differential impact of the types of victimization of community violence since most

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
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</thead>
<tbody>
<tr>
<td>1. I have heard that in the places I go for fun, people have been killed</td>
<td>0.69</td>
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<tr>
<td>3. I have heard that in the places I go for fun, someone has been shot</td>
<td>0.74</td>
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<td>4. I have heard that in the places I go for fun, people have been stabbed</td>
<td>0.7</td>
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<td>5. I have heard that people have been hurt in the places I go for fun</td>
<td>0.75</td>
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<td>10. I have heard that in the places I often go, people have been stabbed</td>
<td>0.64</td>
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<tr>
<td>12. I have heard that in the places I often go, someone has been shot</td>
<td>0.75</td>
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<td>16. I have heard that in the places I often go, people have been killed</td>
<td>0.77</td>
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<td>24. I have heard that people have been hurt in the places I often go</td>
<td>0.75</td>
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<tr>
<td>26. I have heard that in the places I go for fun, someone has been kidnapped</td>
<td>0.67</td>
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<tr>
<td>15. I have heard that in my neighborhood, someone has been kidnapped</td>
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<td>0.67</td>
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<td>18. I have heard that drugs are sold in my neighborhood</td>
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<td>0.64</td>
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<td>19. I have heard that in my neighborhood, someone has been shot</td>
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<td>0.83</td>
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<td>20. I have heard that in my neighborhood, people have been beaten up</td>
<td></td>
<td>0.74</td>
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<tr>
<td>28. I have heard that in my neighborhood, people have been killed</td>
<td></td>
<td>0.76</td>
<td></td>
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<tr>
<td>34. I have heard that people have been hurt in my neighborhood</td>
<td></td>
<td>0.78</td>
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<tr>
<td>14. I have heard that people have been attacked with weapons in the places I often go</td>
<td></td>
<td>0.64</td>
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<td>21. I have heard that in the places I often go, someone has been stabbed</td>
<td></td>
<td>0.6</td>
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<tr>
<td>22. I have heard that there have been unarmed attacks in the places I go for fun</td>
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<td>0.59</td>
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<td>27. I have heard that someone has been kidnapped in the places I often go</td>
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<td>0.7</td>
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<td>30. I have heard that in the places I often go, someone has been shot</td>
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<td>0.73</td>
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<td>32. I have heard that people have been attacked with weapons in the places I often go</td>
<td></td>
<td>0.64</td>
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<td>6. I have heard that at my school, people have been beaten up</td>
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<td>0.64</td>
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<tr>
<td>7. I have heard that at my school, someone has been shot</td>
<td></td>
<td>0.63</td>
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<td></td>
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<tr>
<td>8. I have heard that people have been stabbed at my school</td>
<td></td>
<td>0.66</td>
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<tr>
<td>13. I have heard that people have been hurt at my school.</td>
<td></td>
<td>0.68</td>
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**Table. 1**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Factor 1</th>
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<tbody>
<tr>
<td>Factor 1</td>
<td>0.54**</td>
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<tr>
<td>Factor 2</td>
<td>0.52**</td>
<td>0.40**</td>
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<tr>
<td>Factor 3</td>
<td>0.41**</td>
<td>0.27**</td>
<td>0.49**</td>
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<td>** p&lt;.01</td>
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**Table. 2**

Correlation of factors on the contextual victimization scale
of the studies include victimization through being a witness and the contextual victimization (hearing reports about violence) in the category of indirect victimization. Contextual victimization (listening to reports of violence (Javdani, Abdul-Adil, Suárez, Nichols & Farmer, 2014, Lambert, Nyland-Gibson, Copeland-Linder & Ialongo, 2010). This is how the CVCV Questionnaire when applied with other mental health questionnaires will be able to perform a more targeted analysis on the presentation of trauma and other symptoms in youths who have witnessed acts of violence and those who have only heard about the occurrence of these acts. The CVCV Questionnaire is of particular relevance since it will allow when applied with other mental health questionnaires to distinguish in the future the differential impact of the types of victimization of community violence since most of the studies include victimization through being a witness and the contextual victimization (hearing reports about violence) in the category of indirect victimization (Javdani, Abdul-Adil, Suárez, Nichols & Farmer, 2014, Lambert, Nyland-Gibson, Copeland-Linder & Ialongo, 2010). This is how the CVCV Questionnaire will be able to perform a more targeted analysis on the presentation of trauma and other symptoms in youths who have witnessed acts of violence and those who have only heard about the occurrence of these acts. This will allow providing evidence-based information on this type of victims to mental health centers while promoting the need for citizen security programs. The present study had some limitations that must be kept in mind for future research. First, when constructing the scale it was decided to explore the frequency of victimization during the previous year and that it would be particularly relevant to also explore victimization over a lifetime as this would identify many more victimization exposures. In this regard we know that people who experienced multiple or accumulated victimization have a higher risk of having negative impact on mental health and academic performance in young people (Gardella, Tanner-Smith & Fisher, 2016). Likewise, it should not be overlooked that the various criminal events do not have the same impact on youth, and it is for this reason that a range of possibilities for future studies is opened where researches are built to explore the seriousness of the events in the context of contextual victimization and its differential impact on mental health.

REFERENCES


Javdani, S., Abdul-Adil, J., Suárez, L., Nichols, S.R., &


