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Measuring child exposure to violence and mental health reactions in epidemiological studies: challenges and current issues

Criança, violência e saúde: desafios e questões atuais

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Abstract ***This paper examines challenges and current issues involved in measuring exposure to different types of violence which are associated mental health problems in children and adolescents. Standardized measures suitable for epidemiological studies, selected based on their relevance in the current literature, are briefly described and commented. The assessment of child's exposure to violence may focus on a specific event (e.g., kidnapping), a specific context (e.g., war) or even of a certain type of exposure (e.g., intrafamilial physical violence). The assessment of child mental health after exposure to violence has traditionally focused on posttraumatic stress disorder (PTSD) – most frequently measured through non-diagnostic scales. However, other mental health reactions may be present and screening as well as diagnostic instruments which may be used to assess these reactions are also described. Two issues of emerging importance - the assessment of impairment and of traumatic grief in children – are also presented. Availability of culturally appropriate instruments is a crucial step towards proper identification of child mental health problems after exposure to violence.***

Key words ***Posttraumatic stress disorder (PTSD), Trauma, Child psychopathology, Epidemiology, Measurement, Violence***

Resumo ***Este artigo examina os desafios e perspectivas atuais envolvidos na mensuração da exposição a diferentes tipos de violência e problemas de saúde mental em crianças e adolescentes. Instrumentos padronizados apropriados para estudos epidemiológicos, selecionados com base em sua relevância na literatura, são brevemente descritos e comentados. A avaliação de exposição à violência em crianças pode dizer respeito a um evento específico (como sequestro) ou um contexto específico (como guerra) ou mesmo um determinado tipo de exposição (como violência física intrafamiliar). A avaliação da saúde mental infantil após a exposição à violência tradicionalmente concentrou-se na avaliação do transtorno de estresse pós-traumático (TEPT) – freqüentemente avaliado através de escalas não-diagnósticas. Porém, outras reações psicológicas podem ocorrer e instrumentos que podem ser usados para avaliar estas reações também são descritos neste artigo. Dois tópicos de importância emergente – a avaliação de prejuízo funcional e do pesar traumático em crianças – são também apresentados. Instrumentos culturalmente apropriados são essenciais para a identificação de problemas de saúde mental em crianças após a exposição à violência.***

Palavras-chave ***Transtorno de estresse pós-traumático (TEPT), Trauma, Psicopatologia infantil, Epidemiologia, Mensuração, Violência***

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Introduction

The assessment of children's behaviors and emotions after they had been exposed to extreme violence poses unique challenges compared to the assessment of adults. First, developmental stages need to be considered, as measurement strategies will most likely differ when assessing children in varying stages of development. As a general rule, the younger the child, the more limited are our options to appropriately evaluate her or his mental health. Second, when the goal is to learn about children's reactions, different informants may be required. The choice of the optimal informant may depend on the type of reactions of interest (internalizing or externalizing behaviors?), the age range (early childhood or adolescence?) and logistics (is it feasible to interview parents and children?).

The challenges inherent to the assessment of youth populations are combined with the challenges pertaining to the epidemiological measurement of psychopathology related to exposure to violence. As we know, this type of evaluation is a two-step process; including both a detailed characterization of the person's exposure as well as of the reactions possibly related to such exposure. This paper, rather than aiming to describe a large number of measures used in post-disaster contexts[1-3], focus on a few selected measures which can be used to assess both exposure to traumatic events and symptoms in children which could be related to the traumatic exposure. The measures included were used recently in key studies addressing the impact of violence and the development of child psychopathology. Whenever a measure had already been used and/or tested in Brazil, we included information about such use. Because our interest is learning about populations and not to conduct clinical, detailed assessments of a few individuals, we only considered measures that do not require administration by clinicians. We finalize the paper by calling attention to two issues we consider critical to the field: the assessment of impairment and of the emerging notion of traumatic grief in epidemiological assessments involving children.

Assessment of child exposure to violence

Determining the impact of exposure to violence on children starts with proper assessment of the degree and quality of children's exposure to possible stressors. Assessment options range from the frequently used brief checklists to lengthy, seldom employed, detailed interviews[4]. The goal of an evaluation may be to understand the impact of a ***specific event*** (e.g., school shooting), of a ***specific context*** (e.g., war) or even of a ***certain type*** of exposure (e.g., child sexual abuse). In some cases, the aim is to collect information about a ***wide range*** of potentially traumatic events.

Event-specific assessments[5] have to be developed for each study. In these cases, the quality of the questions used is dependent on researchers' level of knowledge about the specific event of interest as well as the different ways it may have represented a threat for children[6]. After the September 11, 2001 attack to the World Trade Center, for example, it was very crucial to recognize, that even though very few children were physically present in the area, their parents were directly exposed[7,8].

Instruments measuring child exposure to traumatic ***contexts*** have also been developed. Such instruments, although obviously context-dependent, can be used across different studies. In many instances, however, supplementation with questions unique to each particular context may be desirable. Examples are instruments addressing children's exposure to war[9,10] or community violence[3,11,12].

Systematic assessment of certain ***types*** or domains of potentially traumatic events experienced by children is also frequently carried out. Children can be physically or emotionally abused or neglected. Sexual abuse is another type of child traumatic exposure. These experiences may occur as part of a specific event[13] or context (war-related rape). They may be a one-time event, but in many cases abuse and neglect become part of day-to-day lives of children. The Childhood Trauma Questionnaire[14] is an example of a self-administered retrospective instrument used with children as young as 12 years. Another example is the Conflict Tactics Scale (CTSPC)[15], which can be used to gather parental and child reports of intrafamily conflict or violence involving a child. A Portuguese version of the CTSPC is available[16].

In Brazil, a population-based study (BrazilSAFE) was conducted to evaluate the magnitude of different forms of intrafamilial physical violence, as part of the WorldSAFE, a multi-country project involving researchers from Brazil, Chile, Egypt, India, the Philippines, and the United States[17]. The pilot stage of the study[18] examined a probabilistic sample of 89 children (0-17 years) and found a high prevalence of severe physical punishment (10.1%), defined as shaking (if age <or= 2 years), kicking, choking, smothering, burning/scalding/branding, beating, or threatening with weapon. The pilot investigation was followed by a more comprehensive assessment[19].

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The WorldSAFE Core Questionnaire on Domestic Violence investigates intrafamilial violence and associated factors (original questionnaire in English developed by the WorldSAFE steering committee and copyrighted in 1998). It includes 33 items representing different child-rearing behaviors from mother and/or her husband/partner in the last 12 months. Items were partially derived from the Parent-Child Conflict Tactics Scales[15] with permission from authors, and also included parental behaviors usually noted in developing countries (e.g. pulling hair, twisting ear, hitting on head with knuckles) according to clinical practice and previous WorldSAFE qualitative information (not published). The Core Questionnaire was translated to Portuguese, back translated, field tested and applied in a pilot study before being used in the full study (Brazilian version developed by Bordin IA and Paula CS in 1999).

When there is interest in inquiring about more than one specific event, context or domain of exposure, the instrument employed should allow the assessment of children's exposure to a wide range of events. New challenges arise in this situation, as decisions have to be made about the number and type of relevant exposures[4]. Often, the assessment of PTSD in the general population, as opposed to highly exposed groups, requires such an approach. Commonly used structured diagnostic psychiatric interviews for children which address PTSD include different lists of events which are potentially traumatic. For example, the DISC[20] includes 8 such events, the DAWBA[15] lists 11 and the CAPA[21] 17 possible events[22].

In general, very little attention in the child trauma literature has been devoted to methodological issues involved in the evaluation of children's exposure to traumatic events. The child trauma literature has not to date provided a conceptual or empirical rationale for selecting the most important child-specific extreme events. Problems with reliability and validity of largely used checklists, which rely in broad categories when describing extreme events[23], may well be exacerbated for children. It is also not clear to what extent and when parental and child reports of child exposure are necessary to characterize the exposure or in which instances one informant is better than another.

Assessment of child mental health after exposure to violence

In circumstances that involve high levels of exposure to violence, including post-disaster contexts, brevity of evaluation is frequently a major requirement[24,25]. Traditionally investigators have chosen to focus on posttraumatic stress reactions after disasters rather than conducting a more comprehensive assessment of child psychopathology[26]. Therefore, the field of child trauma has produced and repeatedly used a number of brief rating scales focused on posttraumatic stress symptoms[3,27] restricted to one specific event or context. The brevity of such scales facilitates obtaining reliability (test-retest) information. In addition, concurrent or convergent validity indicators are usually available, derived from comparisons of the scales among themselves, rather than to PTSD diagnosis established through clinical child psychiatric diagnostic interviews.

PTSD scales

Child PTSD has been viewed as a serious disorder in youth because of its adverse effects on biological, psychological, and social development[28,29], as well as its debilitating course over a lifetime[30].

One of the most widely used PTSD self-report scales is the Impact of Events Scale (IES)[31]. This scale, which was not designed specifically for children, has been simplified to be used with children 8 to 18 years[32,33]. Beside its questionable suitability for children, another weakness of the IES is that it was designed before the inclusion of PTSD in the DSM, therefore it does not reflect this classification. However, the multiple translations make this a highly used measure in international work[34-36].

Another frequently used measure is the Children's Posttraumatic Stress Reaction Index (CPTSD-RI)[37]. The CPTSD-RI is specifically designed to measure PTSD symptoms in children and adolescents (the self report version can be administered to children as young as age 8). It does not, however, completely correspond to DSM-IV criteria. The CPTS-RI can be administered through self-report and has also been translated into different languages, including Armenian[38] and Cambodian[39].

Filing a gap, the Child PTSD Symptom Scale (CPSS)[40] is a PTSD rating scale entirely based on the DSM-IV[41], but still without strong empirical support. Cartoon-based self-report measures[42,43] have also been created, as an attempt to produce more developmentally appropriate instruments. More evidence is necessary, however, to support their psychometric properties.

We now know that the almost exclusive focus on posttraumatic stress is unjustified, as a wide

range of reactions is observed in children after major disasters or other extreme events[8]. For those interested in taking broader approach to measure children's reactions to disasters in post-disaster contexts, the choice of what additional types of psychiatric problems should be assessed will heavily depend on the nature of the disaster.

Child mental health: screening measures

The use of screening measures to assess child psychiatric disorders can abbreviate the time taken to conduct assessments permitting a wider range of possible reactions to trauma to be considered. The Child Behavior Checklist (CBCL)[44,45] is the most utilized instrument to identify mental health problems in children and adolescents worldwide. The Child Behavior Checklist – CBCL 6-18[45] is a standardized parent-report screening questionnaire with 118 items to identify emotional/behavioral problems in children and adolescents at a clinical or borderline level. Data on content and construct validity, and test-retest and inter-interviewer reliability revealed adequate psychometric properties of the instrument. It allows the identification of empirically-based, cross-culturally reproducible[46] syndromes, which can be related to the DSM classification[47]. The validity of a PTSD scale derived from the CBCL has not been supported[48,49].

The CBCL 6-18 was translated to Portuguese, back translated, and field tested before achieving its final form (Brazilian version developed by Bordin IA, Paula CS and Duarte CS in 2002). On the Brazilian version of the CBCL (CBCL 4-18), initial findings from a validity study showed high sensitivity, when applied to mothers of low educational level by a trained lay interviewer. In a random sample of pediatric patients aged 4 to 12 years (n = 49), 80.4% of children with one or more psychiatric diagnosis based on ICD-10 were positive for behavior problems according to CBCL (total behavior problem T-score > 60)[50]. High sensitivity of CBCL 4-18 was also shown in a consecutive sample of children and adolescents (n = 78) scheduled for first appointment at the mental health outpatient clinic of the Universidade Federal do Rio de Janeiro. When comparing CBCL and K-SADS-PL results, the author noted that 82.8% of children with one or more psychiatric disorders obtained a T-score higher than 63 in the total behavior problem scale of CBCL[51].

The Strengths and Difficulties Questionnaire (SDQ)[52,53] is another general psychopathology measure, conceptually derived from the DSM classification, and originated from the Rutter Questionnaires[54]. The SDQ[55] is a brief questionnaire used as a screening for mental health problems in children aged 4 to 16 years, and shows adequate psychometric properties. Its 25 items are distributed across five scales: anxiety and/or depression, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior, with the sum of the four first scales representing total difficulties. Cutoff points determine three categories (clinical, borderline, and normal) for each of the scales. There are versions for parents/caretakers, children aged 11-18 years, and teachers. Although it does not assess PTSD specifically, it can be combined with PTSD specific scales in post-disaster assessments[56]. The Brazilian version of SDQ was developed by Fleitlich-Bilyk and Robert Goodman[57,58] and used in different studies[59-61].

To assess probable mental disorders in children, another option is the DISC Predictive Scales – DPS[62], a screening measure derived from the National Institute of Mental Health's Diagnostic Interview Schedule for Children, Version IV (DISC-IV)[20] a structured diagnostic interview (described above). Items in the DPS were derived by secondary analysis of large data sets from studies containing DISC symptom and diagnostic information. The DPS includes only the DISC items that are most predictive of DSM-IV[41] DISC diagnoses. Besides the most prevalent psychiatric disorders, including PTSD[8], the DPS also contains a measure of children's impairment (7 global questions derived from the DISC), consistent with DSM-IV criteria[41]. A measure of impairment is optimally obtained in epidemiological assessments of childhood psychiatric disorders and combined with symptoms to define a probable case[63].

Child mental health: diagnostic measures

Whenever possible, in order to advance knowledge in the field, studies should be able to generate more detailed information about the nature of posttraumatic stress in children. This includes, for example, levels of impairment related to observed reactions, temporal sequencing of symptoms and specificity of symptoms to the target event. ***Standardized diagnostic measures*** are a time-consuming effort, which generates high quality information.

One child diagnostic interview is the Development and Well-Being Assessment (DAWBA)[64] deserves to be mentioned. The DAWBA has the unique feature of being administered by lay interviewers, trained to record additional comments, besides the structured response. The interview is then reviewed by child psychiatrists, which would corroborate

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or not the diagnosis generated by computer algorithms. This procedure, which is not too labor intensive or expensive, despite being unusual in the field, does result in reliable and valid information. There is a Brazilian version of DAWBA and child psychiatric disorder prevalence estimated based on this instrument[65].

The Diagnostic Interview Schedule for Children (DISC-IV) is a structured diagnostic instrument that classifies children according to DSM IV[41] criteria. Symptoms (and diagnoses) are determined for last month and last year, with age of onset being ascertained for each positive diagnosis. The recommend scoring[66-68] is to use an either/or algorithm to combine parent and child information. According to this rule, a symptom is considered positive if endorsed by either informant. In order to measure sub-threshold diagnosis, the DISC PTSD module will be employed omitting a logical skip that requires a threshold of severity, ensuring that all persons complete the full PTSD symptom section. Criterion validity of the NIMH DISC-IV[69] was assessed as part of the ***Methods for the Epidemiology of Child and Adolescent Mental Disorders*** (MECA) study[70]. In general, the DISC showed moderate to good validity across a number of diagnoses. Apart from a few notable exceptions (Major Depressive Disorder and Separation Anxiety Disorder) the validity of youth -derived DISC diagnoses was not as good as that of the parent report. The agreement between a clinician administered DISC (using standard DISC interviewing practices) and clinician ratings, for both youth and parent versions, was generally much better than agreement between two DISC interviews on the same person separated by an interval. In general, the parent informant was more reliable than the Youth; exceptions to this were Conduct Disorder and Major Depression. The reliability of the symptom and criterion scales was better (often substantially) than that for most diagnoses, regardless of informant. Symptom scale reliability ranged from 0.53 to 0.87 and for all but one of the parent DISC symptom scales was excellent[20]. Given its high level of complexity, a paper version is not available and the DISC can only be administered as a computerized interview. The DISC is not translated into Portuguese. There is a well tested and widely used Spanish translation[71,72].

Another example worth mentioning is the Child and Adolescent Psychiatric Assessment (CAPA). This instrument is a highly structured, interviewer-based interview that is designed for adolescents aged 9 to 17 years. Both parents and children are interviewed separately and asked about symptoms from the past three months. A diagnosis is made by combining both sets of answers according to a computer algorithm (designed to match DSM criteria). Among all the child psychiatric structured interviews, the CAPA is the interview with more published support for its PTSD module. The CAPA life events module is split up into two sets of events; the "extreme stressors" (as defined by the DSM) as well as "a set of events covered by most life events scales used in the context of research on depression and anxiety." The former is often referred to as a "high magnitude" event and the later a "low magnitude" event.

Functional impairment

The challenge of systematically assessing children's mental health needs cannot be underscored. In order to facilitate the visualization of the impact of violence on child mental health by the public eye, it is necessary to make this specific subject quantifiable, visible and understandable. Focusing on children's impaired functioning may be a good strategy, if the goal is to provide a brief indicator of child mental health which can be included as part of overall assessments of child well-being following exposure to violence.

For the most part, the DSM-IV[41] and ICD-10[73] classifications require impairment for any psychiatric disorder to be diagnosed. Therefore, most of the child mental health diagnostic measures mentioned above ask about level of impairment related to each specific disorder. Informants, however, rarely observe or report child impairment as related to specific diagnostic categories[63].

Global measures are thought of as advantageous in the sense that they are short and can be scored by lay interviewers after adequate training, both characteristics conducive to research. One example of this is the Children's Global Assessment Scale (CGAS). The CGAS is an adaptation of DSM's Axis V, Global Assessment of Functioning (GAF) examination[74,75].

The Columbia Impairment Scale (CIS) represents an attempt to provide a global measure of impairment which, in contrast to the CGAS, is not based on clinical judgment[67,76]. The CIS includes questions related to interpersonal relations, the use of free time, and level of functioning at work or at school. Research shows that the CIS had high internal consistency coefficients, with the parent being more consistent than the child scale[77]. Although widely used, the CIS was criticized because it includes some questions related to psychiatric symptoms, and not only to impaired functioning. This

prevents the establishment of a more clear differentiation between symptoms and impairment.

One disadvantage of global impairment measures is that they do not necessarily describe the functioning of a child in different situations. Domain specific measures of impairment compartmentalize a child's functioning in areas and give each area its own score[78]. The Brief Impairment Scale – BIS[79] includes multiple dimensions of impairment and assesses child impairment independently from symptomatology. The Child and Adolescent Functional Assessment Scale (CAFAS) includes questions regarding performance at home, school, community, thinking, behavior towards self, moods/emotions, self-harmful behavior, and substance use[77,80-82]. The Social Adjustment Inventory for Children and Adolescents (SAICA)[83] is another comparable measure of impairment, which also inquires about indicators of functioning and symptoms. Another interesting approach is the impact supplement to the SDQ[52]. This supplement to the SDQ, developed in 1999, includes questions about distress, impairment, disease burden, and chronicity. These extra questions improved SDQ's ability to discriminate between clinic and community subjects. Interestingly, the single question about impact, was significantly superior to the symptom scale to predict clinical status[53].

The level of functional impairment of a child is defined based on the behaviors and skills that she/he is supposed to possess relative to other children her/his age. By measuring a child's level of impairment in relation to her/his age group, it is implied that children of a certain age should have attained a specific repertoire of skills. This, however, poses problems as adequate functioning is defined differently by distinct societies or cultures; therefore, most likely, a child who is from a different culture from the one where an impairment measure was developed would not receive an accurate score.

To avoid this potential flaw, the validity of strategies to measure impairment should be ascertained in children of different backgrounds and cultures. While designing or evaluating the results of a cross-cultural measure of child impairment, these considerations and implications must be taken into account and operationalized.

If the measurement of impairment (or disability) is restricted to clearly observable or physical characteristics, cultural influences seem not to have a strong influence on the results. The Ten Questions Screen for Childhood Disability has been used to assess disability in children cross-culturally, using a standard ten-question interview. Questions administered to parents of 2 to 9-year old children were designed to detect both cognitive and motor disabilities; i.e., motor milestones, vision, hearing, comprehension, movement, seizures, learning, no speech, unclear speech, and slowness. Research has credited this instrument with overall good cross-cultural reliability[84].

Some research has been done to measure the cross-cultural adaptability of other impairment scales. The CGAS and the CIS have also been used to measure impairment in epidemiological research[76,85-87]. CGAS test-retest scores obtained from Swiss children tested using the CGAS and the CIS support the cross-cultural validity of these measures[87]. Additionally, there is research that suggests that CAFAS may also be a measure of impairment that is relatively impervious to culture[81,82].

Bolton and Tang[88] have proposed an original model to assess impairment across cultures, taking each individual society's nature into account while still preserving the cross-cultural comparability. According to this model, until today only tested in adults, different community-specific tasks are inserted into a general template and 20 to 40 respondents in each community are presented with three questions: "What are the tasks that men/women must do regularly to care for themselves?", "What are the tasks that men/women must do regularly to care for their family?", "What are the tasks that men/women must do regularly to care for their community?". After compiling the lists, the 9 most common answers, with at least one from each of the three categories, are inserted into the template, in which respondents are asked to list the level of difficulty for each task. This method was tested in Rwanda and Uganda achieving satisfactory test-retest reliability.

Traumatic grief: new diagnostic category?

Depending on the specific nature of the traumatic situation, it may be important to include specific reactions as part of the evaluation. We now know that having a family member exposed to a traumatic situation has an impact on child mental health[7,8]. Such impact may vary widely; and it may be particularly intense if the family member dies as a result of such exposure. Traumatic grief is a possible reaction[89] to the sudden death of a loved one. Traumatic grief is not a recognized disorder in the DSM-IV, and therefore has no widely shared agreed upon definition of symptoms and it is often confused with another newly developing diagnosis, complicated grief. While these two psychiatric problems are similar, they are also distinct from one another.

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Childhood traumatic grief refers to a psychiatric condition in which a child or adolescent is unable to go through the normal grieving process following an objectively traumatic death[89]. Similar to PTSD, children with childhood traumatic grief will experience hyperarousal and reexperiencing of the traumatic event related to the loved one's death. Reexperiencing is usually triggered by trauma reminders (places, people or events that remind the child or the deceased)[90]. This indicates that the trauma of the death is taking priority over bereavement of the death itself. According to available data, without treatment, traumatic grief could linger or worsen over time, possibly posing a serious threat for persistent impairment in social functioning[91].

Children and adolescents suffering from traumatic grief can be assessed by the Inventory of Traumatic Grief (ITG)[87]. While there have been numerous attempts to quantify grieving, this measure has been developed specifically to measure pathologically maladaptive symptoms of grief (such as separation distress and traumatic distress). The ITG is a 30-item, self-report questionnaire originally designed for adults. The respondent's rate the degree in which their symptoms affected them within the last month on a 5-point scale (ranging from almost never to always). Other items refer to the intensity of the symptoms (ranging from no sense of bitterness to overwhelming sense of bitterness).

Interest in grief disorders are growing. Diagnostic tools have been developed attempting to separate normal (uncomplicated) grief symptoms from the unique symptoms of traumatic grief. As with many psychiatric disorders, child and adolescent populations are not being studied as thoroughly as the adult populace and this is clearly an area which deserves more attention.

Final comments

Standardized instruments are necessary for the epidemiological evaluation of child psychiatric problems following children's exposure to violence. In these circumstances, the assessment should include both a careful examination of the child's exposure to violence as well as the psychiatric problems possibly related to it. Although conditions known to be directly related to exposure to violence, such as PTSD should definitely be examined, it is also important to include other types of possible disorders, as the evidence to date suggests that there are many different ways how children can react. Although outside of the scope of this review, it has also been suggested, that depending on the nature of the disaster, it is also of major importance to assure that appropriate measurement of community-based variables is completed, as contextual elements can be key to understand children's psychopathological or resiliency responses. An example here would be also taking into account information about rates of violence within schools or neighborhoods, when examining individual exposure to violence among children.

The assessment of exposure to violence and psychopathology can be done with different levels of details and specificity. It is important that investigators have the goals of the research project clearly established so that the best measurement strategy can be determined. The selection of instruments for the assessment of exposure to violence and psychopathology in children will have to take into account a broad range of issues, such as disorder(s) to be measured, instrument's psychometric properties, cultural appropriateness for the specific context, length, mode of administration, possibility of drawing useful comparisons based on existing data, among others. In this paper, we provided commentaries and a description of instruments which can be valuable resources, according to our research experience, knowledge of the literature, and evidence from recent studies.

The development of psychometrically sound versions of widely used instruments, which are culturally appropriate for the Brazilian context, is clearly a relevant, underway goal of the field[92]. It is also important, however, particularly for the assessment of exposure to violence, that experts, knowledgeable of the specific context, use their knowledge to generate context-relevant, possibly unique measures. Ideally, the development of future diagnostic classifications (e.g., DSM-V) and of other basic classification frameworks in a globalized world will more and more be informed by contexts besides those of Anglo-European countries, so that it would also include input from diverse settings, where the condition being studied (in this case violence) is highly prevalent.

Valid and reliable instruments, which can be used in different circumstances, are a crucial step to make the identification of child mental health problems easier in Brazil[93], improving our capacity to understand the fine mechanism through which exposure to violence results in mental health problems in children, many times generating more violence.

Collaboration

CS Duarte, IAS Bordin and CW Hoven worked on the conception and writing; GR Green worked on the revision, bibliographical organization and final draft of this paper.

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