

ASSESSMENT OF EARLY TRAUMATIC EXPERIENCES IN ADULTS

Nuria Ordóñez-Cambor¹, Eduardo Fonseca-Pedrero^{2,3}, Mercedes Paino^{1,3},
Leticia García-Álvarez^{1,3}, Juan Pablo Pizarro-Ruiz⁴ and Serafín Lemos-Giráldez¹

¹Universidad de Oviedo. ²Universidad de La Rioja. ³Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM). ⁴Universidad de Burgos

La presencia de experiencias traumáticas tempranas se ha asociado con una gran variedad de alteraciones psicopatológicas en la edad adulta. Esto hace que en la práctica clínica sea importante la evaluación y el abordaje de eventos traumáticos previos en los pacientes con diferentes trastornos mentales. El objetivo fundamental de este trabajo fue realizar una breve descripción y aproximación a los principales instrumentos de medida para la evaluación de las experiencias traumáticas tempranas, preferentemente en adultos; y presentar un nuevo instrumento de medida para la evaluación de las experiencias traumáticas tempranas en pacientes con trastorno mental grave. Los resultados mostraron que la mayoría de los instrumentos existentes proporcionan escaso o ningún apoyo psicométrico y se centran en evaluar un solo tipo de experiencia traumática, lo que reduce su aplicabilidad en la práctica clínica. Del mismo modo, son escasos los instrumentos que han sido adaptados y validados en población española. Futuros estudios deberían seguir examinando las propiedades psicométricas de este conjunto de autoinformes, con la finalidad de mejorar la evaluación de las experiencias traumáticas en la edad adulta.

Palabras clave: Psicosis, Experiencias traumáticas tempranas, Psicopatología, Autoinforme, Evaluación.

The presence of early traumatic experiences has been associated with a variety of psychiatric disorders in adulthood. This means that in clinical practice the assessment of and approach to previous traumatic events is important in patients with different mental disorders. The main purpose of this paper is, firstly, to provide a brief description and approximation of the main measurement instruments for the assessment of early traumatic experiences; and secondly to present the new self-report for the assessment of early traumatic experiences in patients with severe mental illness. The results show that most of the existing tools for assessing early traumatic experiences have little or no psychometric support and a number of instruments are designed to measure only one type of trauma, which reduces their clinical applicability. Similarly, there are few instruments that have been adapted to and validated in the Spanish population. Future studies should continue to examine the psychometric properties of this group of self-reports with the aim of improving the evaluation of early traumatic experiences in adulthood.

Key words: Psychosis, Early traumatic experiences, Psychopathology, Self-report, Assessment.

The term *early traumatic experiences* refers to different events that occur in childhood and adolescence, which are characterised by being out of the child's control, preventing or disrupting normal development, and causing stress and suffering (Burgermeister, 2007). The most common are emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect (Bernstein et al., 2003).

It is difficult to know the true prevalence of abuse in children, since the majority of cases are usually not detected. The fact that most of these traumatic experiences occur in the family environment, the shame experienced by the victim, the early age at which they happen and the dependence on the adult, and the criminal sanctions involving the reporting of such cases are some of the factors that impede them from being known about (Goldman & Padayachi, 2000). In our country, the study conducted by the Reina Sofia Centre (Sanmartín, 2011) on child abuse in the family is noteworthy. The results showed that 4.54% of boys and 3.94% of girls between 8 and 17 years reported suffering abuse by a family member. The most prevalent types of abuse in this age group are: psychological (2.35%), followed by physical (2.24%), sexual (0.89%) and finally, negligence (0.78%). With regards to sex, boys are

at greater risk of suffering physical abuse (2.41%), while girls suffer higher rates of psychological abuse (2.72%), sexual abuse (1.13%) and negligence (0.91%). Similarly, the results indicate that experiences of abuse decrease as the age of the child increases. Thus, the prevalence of abuse between 8 and 11 years stood at 5.05%, while between 12 and 14 years it was 4.65%.

The presence of stressful events or occurrences has important implications for people's physical and emotional health (Thabrew, de Sylva & Romans, 2012). During childhood, these traumas can have a more significant impact, since they do not affect a biological, psychological and socially mature human being, but a human being in a phase of development that requires certain external conditions of stability and protection (López-Soler, 2008). Thus, the fact that the human brain continues to develop during childhood and adolescence, and even during the adult period, makes it especially vulnerable to traumatic situations or chronic stress and can cause damage, sometimes irreversible, of a physical, emotional and cognitive nature (Mesa-Gresa & Moya-Abiol, 2011). In general, the following reactions to a seriously stressful event are considered normal: sadness, anxiety, anger, altered behaviour and other minor difficulties that disrupt for a short time (López-Soler, 2008). However, sometimes the difficulties are more intense and longer lasting, resulting in significant problems in the personal functioning and psychosocial adaptation of the child. Thus, negative occurrences, such as physical abuse,

Correspondencia: Nuria Ordóñez Cambor. Facultad de Psicología. Universidad de Oviedo. Plaza Feijóo, s/n 33003. Oviedo. España. Email: nuorcapsico@hotmail.com

emotional neglect, sexual abuse and others may produce negative psychological effects, both in the short and long term (Pereda, 2009, 2010) (see Figure 1).

Among the short and medium term psychological effects, it has been found that episodes of abuse cause changes in the emotional development and personality of the child. Different studies show the profile of the child with experience of abuse as insecure, with low self-esteem and difficulties in social relations (Flynn, Cicchetti, & Rogosch 2014; Young & Widom, 2014), presenting great difficulty in expressing and recognising emotions and having more negative emotions (Shenk, Putnam & Noll, 2013). Similarly, often they lack essential positive beliefs about themselves and their world, showing less skills in recognising and responding to the distress of others (Sanmartin, 2011). It has also been found that these children are more likely to exhibit delays in cognitive development, showing gaps in the development of language, low scores on intelligence tests and generally poor school performance (Merritt & Klein, 2015; Viezel, Freer, Lowell & Castillo, 2014).

These deficits, far from abating over time, can sometimes persist into adulthood, leading to different psychopathologies. The presence of early traumatic experiences has been associated with increased vulnerability to psychopathology and a worse physical condition in adulthood (Shonkoff et al., 2012). At the psychiatric level, numerous studies have found a relationship between childhood trauma and various psychopathological disorders, such as mood disorders and anxiety, post-traumatic stress disorder, dissociative disorders, psychotic disorders, and substance use disorders, among others (Agorastos, et al, 2014; Park et al, 2014; Van Nierop et al, 2015). It is estimated that between 34 and 53% of patients with mental health problems have a history of physical and sexual abuse during childhood (Alarcón, Araujo, Godoy & Vera, 2010). Similarly, the existence of early trauma has been associated with various complications in the course of mental disorders, such as increased comorbidity and severity, worse response to drug treatment and worse prognosis (Álvarez et al, 2011; Nanni, Uher & Danese, 2012; Teicher & Smanson, 2013).

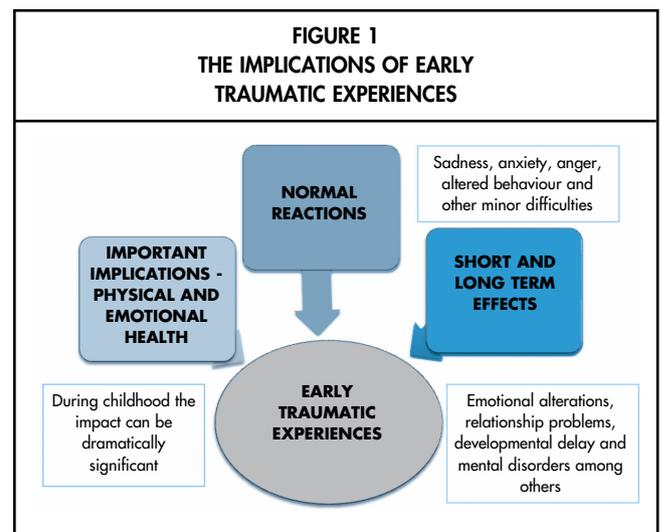
Within the trauma and psychopathology relationship, interest in the study of the relationship between psychosis and early traumatic experiences has increased in recent years. Different studies show that traumatic experiences can play a causal role in the development of psychotic disorders (Falukozi & Addington, 2012; Lataster, Myin-Germeys, Lieb, Wittchen & van Os, 2012; Thompson et al, 2014.) Recently, Varese and colleagues (2012) conducted a comprehensive meta-analysis, finding a significant relationship between the presence of different types of traumatic experiences and psychosis (odds ratio (OR) = 2.78, $p \leq 0.001$). In Spain, there are few studies measuring this relationship, with the results being consistent with those found in international samples; and between 40 and 75% of the patients with psychosis studied reported the previous presence of traumatic experiences (Álvarez et al, 2011; Ordóñez-Cambor et al, 2014). Similarly, recent studies highlight the role of traumatic experiences before the development of psychosis, as a possible trigger factor; a history of traumatic experiences has been linked with the transition to psychosis in people at high risk (Bechdolf et al, 2010; Thompson et al, 2014; Tikka et al, 2014).

The study of the relationship between psychosis and traumatic experiences has also focused on the effect that these experiences can have on the course and outcome of psychotic disorders. Overall, the patients who report a history of trauma present a more severe clinical profile, with an earlier onset of symptoms, more positive symptoms, especially hallucinations, a higher number of admissions and more suicide thoughts and attempts (Conus, Cotton, Schimmelmann, McGorry & Lambert, 2010; Daahman et al, 2012). Similarly, they have lower adherence to treatment and increased comorbid symptomatology (Bendall, Álvarez-Jiménez, Nelson & McGorry, 2013; Schäfer et al, 2012).

Within this context, the purpose of this study was to perform a brief description and approach to the main measuring instruments for the assessment of early traumatic experiences, preferably in adults. The assessment and treatment of traumatic experiences is of utmost importance for the prevention and intervention of psychopathological alterations. In this sense, it is relevant to have short and simple measuring instruments to identify the presence of different early traumatic experiences, in order to carry out a more precise and thorough psychological evaluation of these experiences and to guide the intervention and the possible therapeutic process.

INSTRUMENTS FOR ASSESSING EARLY TRAUMATIC EXPERIENCES: A SELECTIVE REVIEW

Due to the growing interest in the study of the presence of child traumatic experiences, and given their frequency and their impact on the psychological adjustment of the people who experience them, in recent years the development of different questionnaires for assessing the presence of such experiences has increased (Donald, 2012). In Spain, there are few studies that have carried out a review of the various measuring instruments currently used for the assessment of early traumatic experiences. At the international level, various authors have recently undertaken reviews of the instruments for assessing early trauma (see Burgermeister, 2007; Roy & Perry, 2004; Thabrew et al, 2012). Such reviews agree in affirming that most of the instruments do not provide information about their psychometric properties, which



makes them less useful in both clinical practice and research (Thabrew et al., 2012). Similarly, many of the instruments focus on evaluating a single type of traumatic experience (Roy & Perry, 2004). Tables 1 and 2 show the main interviews and self-reports for assessing children’s traumatic experiences that exist internationally.

If we consider the tools for evaluating various types of traumatic experiences, the most used ones that have provided adequate psychometric properties and have been adapted and validated into Spanish are the *Childhood Trauma Questionnaire* (CTQ) (Bernstein, Ahluvalia, Pogge & Handelsman, 1994) and the *Early Trauma Inventory* (ETI) (Bremner, Vermetten & Mazure, 2000).

The *Childhood Trauma Questionnaire* (CTQ) (Bernstein et al., 1994) is the most widely used self-report used in the assessment of traumatic childhood experiences (Thabrew et al., 2012). It includes five types of childhood trauma: emotional abuse, physical abuse, sexual abuse, physical neglect and emotional neglect. The CTQ consists of 70 items of Likert format with 5 categories (0 = “never” and 5 = “very often”). The internal consistency in international studies, is high, both for the total scale (0.98), and for the different factors, ranging from 0.79 to 0.94. Similarly, the test-retest reliability for the whole scale is 0.88, while for the individual factors it was between 0.80 and 0.83. Later, Bernstein et al. (2003) developed a short version, *The Childhood Trauma*

Questionnaire-Short Form (CTQ-SF), composed of 28 items. The CTQ-SF has been translated and adapted to several languages, showing adequate psychometric properties (Grassi-Oliveira et al., 2014). Recently the CTQ-SF has been adapted and translated into Spanish by Hernández et al. (2013) in a sample of 185 women with various mental disorders, showing adequate psychometric properties. The Cronbach’s alpha coefficient is between 0.66 and 0.94. The factor analysis supported a five-factor structure originally proposed by Bernstein et al., (2003). Similarly, the correlation factor is high, ranging between 0.29 and 0.50.

The Early Trauma Inventory (ETI) (Bremner et al., 2000) has been developed for the evaluation of different types of abuse –such as sexual, physical and emotional abuse– and other traumas –such as witnessing violent acts. The ETI has 56 items in dichotomous Yes / No format, through which it evaluates the different types of trauma, the frequency of the abuse, the age at which the abuse began, the perpetrator of the abuse and the impact of the abuse. The internal consistency, in studies carried out with foreign samples, is between 0.86 and 0.92, with the test-retest reliability oscillating between 0.51 and 0.99. There is also an abridged version, *The Early Trauma Inventory-Short Form* (SF-TSI) (Bremner et al., 2007), consisting of 27 items in dichotomous Yes / No response format, which, like the original version, evaluates four

TABLE 1
INTERVIEWS FOR THE ASSESSMENT OF CHILDREN’S TRAUMATIC EXPERIENCES

Name of the scale	Reference	Abbrev.
<i>Abuse History</i>	(Soloff, Lynch & Kelly, 2002)	AH
<i>Brief Physical and Sexual Abuse Questionnaire</i>	(Marshall et al., 1998)	BPSAQ
<i>Childhood Experience of Care and Abuse</i>	(Bifulco, Brown & Harris, 1994).	CECA
<i>Childhood Life Events and Family Characteristics Questionnaire</i>	(Byrne, Velamoor, Cernovsky, Cortese & Losztyn, 1990)	CLEFCQ
<i>Childhood Maltreatment Interview Schedule</i>	(Briere, 1992, Briere, Elliott, Harris & Cotman, 1995)	CMIS y CMIS-SF
<i>Childhood Trauma Interview</i>	(Fink, Bernstein, Hadelman, Foote & Lovejoy, 1995)	CTI
<i>Developmental Interview</i>	(Paris, Zweig-Frank & Guzder, 1994)	DI
<i>Early Home Environment Interview</i>	(Lizardi et al., 1995)	EHEI
<i>Early Trauma Inventory</i>	(Bremner et al., 2000)	ETI
<i>Family Experience Interview</i>	(Ogata et al., 1990)	FEI
<i>Family Interview for Protectiveness and Empathy</i>	(Laporte & Guttman, 2001)	FIPE
<i>History of Physical and Sexual Abuse Questionnaire</i>	(Meyer, Muenzenmaier, Cancienne & Struening, 1996)	HPSAQ
<i>Interview for Traumatic Events in Childhood</i>	(Lobbestael, Arntz, Harkema-Schouten & Bernstein, 2009)	ITEC
<i>Instrument on child sexual abuse</i>	(Russell, 1986)	
<i>Retrospective Assessment of Traumatic Experience</i>	(Gallaghe, Flye, Hurt, Stone & Hull, 1992)	RATE
<i>Retrospective Childhood Experience Questionnaire</i>	(Zanarini, Gunderson, Marino, Schwartz & Frankenburg, 1989)	RCEQ
<i>Retrospective Family Pathology Questionnaire</i>	(Zanarini et al., 1989)	RFPQ
<i>Retrospective Separation Experience Questionnaire</i>	(Zanarini et al., 1989)	RSEQ
<i>Sexual Abuse Severity Scale</i>	(Silk, Lee, Hill & Lohr, 1995)	SASS
<i>Structured Trauma Interview</i>	(Draaijer & Langeland, 1999)	STI
<i>Traumatic Antecedents Interview</i>	(Herman, Perry & Van der Kolk, 1989)	TAI
<i>Trauma History Screen</i>	(Allen, Huntoon & Evans, 1999)	THS
<i>Unwelcome Childhood Sexual Events</i>	(Russ, Shearin, Clarkin, Harrison & Hull, 1993)	UCSE

Note. Abbrev: Abbreviation

dimensions (general trauma, sexual abuse, physical abuse and emotional abuse). The ETI-SF has been adapted and translated into different languages, presenting adequate psychometric properties (Osóiro et al., 2013).

In our country, Plaza et al. (2011) have carried out the validation and adaptation into Spanish of the ETI and ETI-SF in a sample of 227 postpartum women. The results indicate that the Spanish version of the ETI presents adequate psychometric properties. The reliability of the scores relating to the internal consistency (estimated using Cronbach's alpha) for the overall scale was 0.79, while the values for the subscales ranged between 0.58 and 0.76). Meanwhile the test-retest was 0.92 for the global scale and between 0.76 and 0.95 for the different subscales. Similarly, the results indicate that the ETI-SF had adequate psychometric properties. The Cronbach's alpha coefficient for the total score was 0.72, while the values for the subscales ranged from 0.42 to 0.72. Obtaining evidence of validity of the two instruments was performed by analysis of the ROC curve. The results indicate that both instruments have adequate evidence of validity, although the ETI-SF is slightly weaker in the detection of physical abuse.

DEVELOPMENT AND VALIDATION OF AN ASSESSMENT INSTRUMENT FOR THE DETECTION OF EARLY TRAUMATIC EXPERIENCES IN PATIENTS WITH SEVERE MENTAL DISORDERS: THE EXPTRA-S

Within this research context, at the national level, as yet no instrument has been specifically built, weighted and validated for the assessment of traumatic experiences in clinical population, particularly in patients with severe mental illness (SMI) (e.g., psychosis). Also, the vast majority of assessment instruments developed for this purpose do not incorporate new developments in psychological measurement (e.g., the construction, translation and/or adaptation of the test, or the construction of items) or new statistical procedures, such as item response theory (IRT) or differential item functioning (DIF). Similarly, there are few instruments that are available in the specialist literature, that evaluate the distress associated with these experiences. This is important since, from a clinical point of view, the way in which the patient processes and manages the trauma is critical in working through the traumatic experiences.

Recently our research team developed the *Cuestionario de Screening*

TABLE 2
SELF-REPORTS FOR ASSESSING CHILDREN'S TRAUMATIC EXPERIENCES

Name of the scale	Reference	Abbrev.
<i>Adverse Childhood Experiences Study Questionnaire</i>	(Dube, Williamson, Thompson, Felitti & Anda, 2004)	AEQ
<i>Assessing Environments III</i>	(Berger, Knuston, Mehm & Perkins, 1988)	AEII
<i>Computer Assisted Maltreatment Inventory</i>	(DiLillo et al., 2010)	CAMI
<i>Childhood Abuse and Trauma Scale</i>	(Sanders & Becker-Lausen, 1995)	CATS
<i>Childhood Experiences Questionnaire</i>	(Ferguson & Dacey, 1997)	CEQ
<i>Childhood Unwanted Sexual Events</i>	(Lange, Kooiman, Huberts & van Oostendorp, 1995)	CHUSE
<i>Child Maltreatment History Self-Report</i>	(MacMillan et al., 1997)	CMHSR
<i>Childhood Traumatic Events Scale</i>	(Pennebaker & Susman, 1988)	CTES
<i>Childhood Trauma Questionnaire</i>	(Bernstein et al., 1994)	CTQ
<i>Childhood Violence Scale</i>	(Riggs, O'Leary & Breslin, 1990)	CVS
<i>Comprehensive Child Maltreatment Scales for Adults</i>	(Higgins y McCabe, 2001)	CCMS-A
<i>Life Experience Questionnaire</i>	(Bryer, Nelson, Miller & Krol, 1987)	LEQ
<i>Neglect Scale</i>	(Harrington, Zuravin, DePanfilis, Ting & Dubowitz, 2002)	NS
<i>Parental Physical Maltreatment Scale</i>	(Briere & Runtz, 1990)	PHY
<i>Psychological Maltreatment Inventory</i>	(Engels & Moisan, 1994)	PMI
<i>Physical and Sexual Abuse Questionnaire</i>	(Nagata, Kiriike, Iketani, Kawarada & Tanaka, 1999)	PSA
<i>Parental Psychological Maltreatment Scale</i>	(Briere & Runtz, 1990)	PSY
<i>Revised Childhood Experiences Questionnaire</i>	(Zanarini et al., 1997)	RCEQ
<i>Sexual Abuse Exposure Questionnaire</i>	(Ryan, Rodríguez, Rowan y Foy, 1992)	SAEQ
<i>Sexual Abuse Questionnaire</i>	(Finkelhor, 1979)	SAQ
<i>Sexual Events Questionnaire</i>	(Calam & Slade, 1989)	SEQev
<i>Sexual Experience Questionnaire</i>	(Wagner & Linehan, 1994)	SEQex
<i>Sexual Life Events Inventory</i>	(Palmer, Chaloner & Oppenheimer, 1992)	SLEI
<i>Sexual and Physical Abuse History Questionnaire of Leserman and colleagues</i>	(Leserman & Drossman, 1995)	SPAHQ
<i>Stressful Life Events Screening Questionnaire</i>	(Goodman, Corcoran, Turner, Yuan & Green, 1998)	SLESQ
<i>Traumatic Experiences Questionnaire</i>	(Nijenhuis, Spinhoven, van Dyck, van de Hart & Vanderlinden, 1998)	TEQ

Note. Abbrev: Abbreviation

de Experiencias Traumáticas [Questionnaire for the Screening of Traumatic Experiences] (ExpTra-S), a short, simple and useful instrument for assessing, through screening, the frequency and distress of early traumatic experiences frequently found in patients with SMI. For further detail please consult Cambor Ordoñez (2015). This is not an assessment instrument that covers all of the possible traumatic experiences; however, it does cover the traumatic experiences that are considered most frequent in childhood (Bernstein et al., 2003). Furthermore, it is intended for use as a screening method, so the information found must be completed using other methods of assessment and different informants.

The construction process of the ExpTra-S, was conducted according to the international guidelines for the construction of assessment instruments (American Educational Research Association et al., 1999; Downing, 2006; Schmeiser & Welch, 2006; Wilson, 2005), following a series of steps that would ensure that the construction process was carried out in a systematic and rigorous way (Muñiz & Fonseca-Pedrero, 2008). The item bank was built based on a comprehensive review of the existing tools for assessing early traumatic experiences in adults and the judgement of experts in the field. The items that made up the bank were selected or modified from different scales and/or newly created ones. All of the items were constructed and drafted based on the principles of simplicity, clarity, comprehensibility and relevance to the population of interest. The translation, adaptation and construction of the items was conducted in accordance with international guidelines for the translation and adaptation of tests (Hambleton, Merenda & Spielberg, 2005; Muñiz & Bartram, 2007; Muñiz, Elosua & Hambleton, 2013), and the construction of multiple-choice items (Haladyna, 2002; Moreno, Martínez & Muñiz, 2006).

The ExpTra-S, has two scales, one of frequency and another of distress. The frequency scale is composed of a total of 18 items in Likert response format of four categories (0 "never", 1 "sometimes", 2 "frequently", 3 "almost always"). The presence of early traumatic experiences is evaluated through 17 questions regarding different types of child abuse: sexual abuse, physical abuse, emotional abuse, and emotional and physical neglect, adding a final item that refers to any other type of traumatic event that may have occurred which has not been covered in previous questions and which has caused the participant distress. Similarly, the scale of distress is also made up of 18 items in Likert format with four categories (1, "no distress", 2 "slight distress", 3 "considerable distress" and 4 "great distress"), where the distress associated with these experiences is evaluated. The scale of distress should be answered only if the trauma is present at least "sometimes" on the frequency scale. An example of an item could be: "When you were a child, did a family member regularly and repeatedly insult you?"

The construction and validation of the ExpTra-S, was conducted with a sample of 114 patients with psychotic disorders and 153 young non-clinical adults, and presented adequate psychometric properties. The estimation of the reliability showed an internal consistency of 0.96, with all indices of discrimination greater than 0.30. The reliability of the scores was also estimated using IRT. Validity studies allowed us to collect enough evidence that could serve as the scientific basis for the interpretation of the scores of participants of the ExpTra-S. Similarly, validity evidence was obtained with other self-reports that evaluated

psychotic symptoms and subjective complaints of cognitive deficits in patients with psychosis (Ordóñez-Cambor, 2015). It would be interesting for future studies to apply ExpTra-S in patients with other serious mental disorders.

BY WAY OF CONCLUSION

A topic of growing interest is the study of the relationship between early adversity and psychological difficulties in later phases of life. In this regard, recent research indicates poorer mental health in general in people who have suffered abuse, with greater presence of symptoms and psychiatric disorders (Carr, Martins, Stingel, Lembruber & Juruena, 2013; Sala, Goldstein, Wang & Blanco, 2014; Subica, 2013). The importance of the trauma and psychopathology relationship has led to the creation of different assessment instruments.

In this sense, the purpose of this research was to conduct a review of the main existing self-reports for assessing early traumatic experiences in adults; and to present a new measuring instrument for assessing early traumatic experiences in patients with SMI. The results show that, although a large number of instruments have been built over the past 30 years focusing on the assessment of adult traumatic experiences, more studies are still needed to further facilitate development and knowledge in the field of assessing traumatic experiences. There is great heterogeneity among the instruments, not only in the formats and methods of administration, but also in the kinds of traumatic experiences that they focus on, which makes comparison between them difficult. At the same time, not all of the instruments developed have provided information about their psychometric properties. Similarly, there are few instruments that have been adapted and validated in the Spanish population. These and other limitations reduce the clinical applicability of these instruments (Thabrew et al., 2012). There is no doubt that the use of assessment instruments with adequate metric quality, upon which solid and well-founded decisions can be based, is a must from both the clinical and research perspectives (Fonseca et al., 2011).

On the other hand, until now none of the existing instruments had been developed specifically for assessing early traumatic experiences in patients with SMI. In this sense, the ExpTra-S is an instrument that can facilitate the brief and simple assessment of early traumatic experiences in patients with SMI.

The assessment of early traumatic experiences is extremely important from the clinical point of view. The early identification and intervention of abusive experiences may decrease the development of mental disorders in adulthood. In the same vein, the presence of early traumatic experiences in a patient with a mental disorder may hinder the therapeutic process and it may be an indicator of poor prognosis as well as influencing the evolution of the clinical condition and the therapy or prophylactic treatment. Thus, participants that report traumatic experiences with some distress should be subject to monitoring as well as a specific intervention during the therapy in order to work through the early traumatic experiences and to reduce the associated distress.

For future work in this line, it is important to continue to obtain validity evidence of the ExpTra-S and to continue to examine the psychometric properties of the measuring instruments available for assessing early traumatic experiences.

REFERENCES

- Agorastos, A., Pittman, J. O., Angkaw, A. C., Nievergelt, C. M., Hansen, C. J., Aversa, L. H., ... Baker, D. G. (2014). The cumulative effect of different childhood trauma types on self-reported symptoms of adult male depression and PTSD, substance abuse and health-related quality of life in a large active-duty military cohort. *Journal of Psychiatric Research, 58*, 46-54. doi: 10.1016/j.jpsychires.2014.07.014
- Aarcón, L. C., Araujo, P. A., Godoy, A. P. & Vera, M. E. (2010). Maltrato infantil y sus consecuencias a largo plazo [Child abuse and its long-term consequences]. *MedUnab, 13*(2), 103-115.
- Alle, J. G., Huntoon, J. & Evans, R. B. (1999). A self-report measure to screen for trauma history and its application to women in inpatient treatment for trauma-related disorders. *Bulletin of the Menninger Clinic, 63*, 429-442.
- Álvarez, M. J., Roura, P., Osés, A., Foguet, Q., Solà, J. & Arrufat, F. X. (2011). Prevalence and clinical impact of childhood trauma in patients with severe mental disorders. *Journal of Nervous and Mental Disease, 199*(3), 156-161. doi: 10.1097/NMD.0b013e31820c751c
- American Educational Research Association, American Psychological Association and National Council on Measurement in Education. (1999). *Standards for Educational and Psychological Testing*. Washington, D.C.: Author.
- Arruabarrena, M. I. & De Paúl, J. (1996). *Maltrato a los niños en la familia. Evaluación y Tratamiento [Child abuse in the family. Evaluation and Treatment]*. Madrid: Pirámide.
- Bechdolf, A., Thompson, A., Nelson, B., Cotton, S., Simmons, M. B., Amminger, G. P., ... Yung, A. R. (2010). Experience of trauma and conversion to psychosis in an ultra-high-risk (prodromal) group. *Acta Psychiatrica Scandinavica, 121*(5), 377-384. doi: 10.1111/j.1600-0447.2010.01542.x
- Bendall, S., Álvarez-Jiménez, M., Nelson, B. & McGorry, P. (2013). Childhood trauma and psychosis: new perspectives on aetiology and treatment. *Early Intervention in Psychiatry, 7*(1), 1-4. doi: 10.1111/eip.12008
- Berger, A. M., Knutson, J. F., Mehm, J. G. & Perkins, K. A. (1988). The self-report of punitive childhood experiences of young adults and adolescents. *Child Abuse & Neglect, 12*, 251-262.
- Bernstein, D. P., Ahluvalia, T., Pogge, D. & Handelsman, L. (1997). Validity of the CTQ in adolescent psychiatric population. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 340-348.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., ...
- Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect, 27*(2), 169-190. doi:10.1016/s0145-2134(02)00541-0
- Bifulco, A., Brown, G. W. & Harris, T. O. (1994). Childhood experiences of care and abuse (CECA): A retrospective interview measure. *Journal of Child Psychology and Psychiatry, 35*, 1419-1435.
- Bremner, J. D., Bolus, R. & Mayer, E. A. (2007). Psychometric properties of the Early Trauma Inventory-Self Report. *Journal of Nervous and Mental Disease, 195*(3), 211-218. doi:10.1097/01.nmd.0000243824.84651.6c
- Bremner, J. D., Vermetten, E. & Mazure, C. M. (2000). Development and preliminary psychometric properties of an instrument for the measurement of childhood trauma: The early trauma inventory. *Depression and Anxiety, 12*, 1-12.
- Briere, J. (1992). Child abuse trauma: Child maltreatment interview schedule. In J. R. Conte (Series Ed), *Theory and treatment of the lasting effects: Interpersonal violence: The practice series* (pp. 165-177). Newbury Park, CA: Sage Publications.
- Briere, J. & Runtz, M. (1990). Differential adult symptomatology associated with three types of child abuse histories. *Child Abuse & Neglect, 14*, 357-364.
- Bryer, J. B., Nelson, B. A., Miller, J. B. & Krol, P. A. (1987). Childhood sexual and physical abuse as factors in adult psychiatric illness. *American Journal of Psychiatry, 144*, 1426-1430.
- Burgermeister, D. (2007). Childhood adversity: a review of measurement instruments. *Journal of Nursing Measurement, 15*(3), 163-176.
- Byrne, C. P., Velamoor, V. R., Cernovsky, Z. Z., Cortese, L. & Loszyn, S. (1990). A comparison of borderline and schizophrenic patients for childhood life events and parent-child relationships. *Canadian Journal of Psychiatry, 35*, 590-595.
- Calam, R. M. & Slade, P. D. (1989). Sexual experiences and eating problems in female undergraduates. *International Journal of Eating Disorder, 8*, 391-397.
- Carr, C. P., Martins, C. P., Stingel, A. M., Lembruber, V. B. & Jurvena, M. F. (2013). The role of early life stress in adult psychiatric disorders: A systematic review according to childhood trauma subtypes. *Journal of Nervous and Mental Disease, 201*(12), 1007-1020. doi:10.1097/NMD.0000000000000049
- Centre International de L'enfance. (1980). *Los niños víctimas de los servicios y maltratos [The child victims of services and abuse]*. Document for the ICC Project. Paris.
- Conus, P., Cotton, S., Schimmelmann, B. G., McGorry, P. D. & Lambert, M. (2010). Pretreatment and outcome correlates of sexual and physical trauma in an epidemiological cohort of first-episode psychosis patients. *Schizophrenia Bulletin, 36*(6), 1105-1114. doi: 10.1093/schbul/sbp009
- Daahman, K. M., Diederer, M. J., Derks, E. M., van Lutterveld, R., Kahn, R. S. & Sommer, I. E. (2012). Childhood trauma and auditory verbal hallucinations. *Psychological Medicine, 42*(12), 2475-2484. doi: 10.1017/S0033291712000761
- Davidson, J. R., Hughes, D. & Blazer, D. G. (1990). Traumatic experiences in psychiatric outpatients. *Journal of Traumatic Stress, 3*, 459-475.
- Donald, J. L. (2012). A review of childhood abuse questionnaires and suggested treatment approaches. In E. S. Kalfo lu (Ed.), *Sexual Abuse-Breaking the Silence*. Rijeka, Croatia: In Tech.
- Downing, S. M. (2006). Twelve steps for effective test development. In S. M. Downing and T. M. Haladyna (Eds.), *Handbook of test development* (pp. 3-25). Mahwah, NJ: Lawrence Erlbaum Associates
- Draijer, N. & Langeland, W. (1999) Childhood trauma and perceived parental dysfunction in etiology of dissociative symptoms in

- psychiatric inpatients. *American Journal of Psychiatry*, 156, 379-385.
- Dube, S. R., Williamson, D. F., Thompson, T., Felitti, V. J. & Anda, R. F. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse & Neglect*, 28(7), 729-737. doi:10.1016/j.chiabu.2003.08.009
- Engels, M. & Moisan, D. (1994). The psychological maltreatment inventory: development of a measure of psychological maltreatment in childhood for use in adult clinical settings. *Psychological Reports*, 74, 595-604.
- Falukozi, E. & Addington, J. (2012). Impact of trauma on attenuated psychotic symptoms. *Psychosis*, 4(3), 203-212.
- Ferguson, K. S. & Dacey, C. M. (1997). Anxiety, depression and dissociation in women health care providers reporting a history of childhood psychological abuse. *Child Abuse & Neglect*, 21, 941-952.
- Fink, L. A., Bernstein, D., Hadelsman, L., Foote, J. & Lovejoy, M. (1995). Initial reliability and validity of the childhood trauma interview. *The American Journal of Psychiatry*, 152, 1329-1335.
- Finkelhor, D. (1979). *Sexually Victimized Children*. New York, NY: Free Press.
- Flynn, M., Cicchetti, D. & Rogosch, F. (2014). The prospective contribution of childhood maltreatment to low self-worth, low relationship quality, and symptomatology across adolescence: A developmental-organizational perspective. *Developmental Psychology*, 50(9), 2165-2175. doi:10.1037/a0037162
- Foa, E. B., Cashman, L., Jaycox, L. & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The Posttraumatic Diagnostic Scale. *Psychological Assessment*, 9, 445-451.
- Fonseca-Pedrero, E., Lemos-Giráldez, S., Paíno, M., Santarén-Rosell, M., Sierra-Baigrie, S. & Ordóñez-Cambor, N. (2011). Instrumentos de medida para la evaluación del fenotipo psicótico [Assessment Instruments for Psychosis Phenotype]. *Papeles del Psicólogo*, 32, 129-151.
- Gallagher, R. E., Flye, B. L., Hurt, S. W., Stone, M. H. & Hull, J. W. (1992). Retrospective assessment of traumatic experiences. *Journal of Personality Disorder*, 6, 99-108.
- Goldman, J. D. G. & Padayachi, U. K. (2000). Some methodological problems in estimating incidence and prevalence in child sexual abuse research. *The Journal of Sex Research*, 37(4), 305-314.
- Goodman, L. A., Corcoran, C., Turner, K., Yuan, N. & Green, B. L. (1998). Assessing traumatic event exposure: general issues and preliminary findings for the Stressful Life Events Screening Questionnaire. *Journal of Traumatic Stress*, 11, 521-542.
- Grassi-Oliveira, R., Cogo-Moreira, H., Salum, G. A., Brietzke, E., Viola, T. W., Manfro, G. G., ... Arteche, A. X. (2014). Childhood Trauma Questionnaire (CTQ) in Brazilian Samples of Different Age Groups: Findings from Confirmatory Factor Analysis. *PLoS ONE*, 9(1), e87118. doi:10.1371/journal.pone.0087118
- Haladyna, T. M. (2002). A review of multiple-choice item-writing guidelines. *Applied Measurement in Education*, 15(3), 309-334.
- Hambleton, R. K., Merenda, P. F. & Spielberger, C. D. (2005). *Adapting educational and psychological tests for cross-cultural assessment*. London: Lawrence Erlbaum Associates.
- Herman, J. L., Perry, J. C. & Van der Kolk, B. A. (1989). Childhood trauma in borderline personality disorder. *American Journal of Psychiatry*, 146, 490-495.
- Hernández, A., Gallardo-Pujol, D., Pereda, N., Arntz, A., Bernstein, D. P., Gaviria, A. M., ... Gutierrez-Zotes, J. A. (2013). Initial Validation of the Spanish Childhood Trauma Questionnaire-Short Form: Factor Structure, Reliability and Association With Parenting. *Journal of Interpersonal Violence*, 28(7), 1498-1518. doi:10.1177/0886260512468240
- Higgins, D. J. & McCabe, M. (2001). The development of the comprehensive child maltreatment scale. *Journal of family studies*, 7(1), 7-28.
- Lange, A., Kooiman, K., Huberts, L. & van Oostendorp, E. (1995). Childhood unwanted sexual events and degree of psychopathology of psychiatric patients: Research with a new anamnestic questionnaire (the CHUSE). *Acta Psychiatrica Scandinavica*, 92, 441-446.
- Laporte, L. & Guttman, H. (2001). Abusive relationships in families of women with borderline personality disorder, anorexia nervosa and a control group. *Journal of Nervous and Mental Disease*, 189, 522-531.
- Lataster, J., Myin-Germeys, I., Lieb, R., Wittchen, H. U. & van Os, J. (2012). Adversity and psychosis: a 10-year prospective study investigating synergism between early and recent adversity in psychosis. *Acta Psychiatrica Scandinavica*, 125(5), 388-399. doi: 10.1111/j.1600-0447.2011.01805.x
- Lizardi, H., Klein, D. N., Ouimette, P. C., Riso, L. P., Anderson, R. L. & Donaldson, S. K. (1995). Reports of the childhood home environment in early-onset dysthymia and episodic major depression. *Journal of Abnormal Psychology*, 104, 132-139.
- Lobbestael, J., Arntz, A., Harkema-Schouten, P. & Bernstein, D. (2009). Development and psychometric evaluation of a new assessment method for childhood maltreatment experiences: The interview for traumatic events in childhood (ITEC). *Child Abuse & Neglect*, 33(8), 505-517. doi:10.1016/j.chiabu.2009.03.002
- López-Soler, C. (2008). Las reacciones postraumáticas en la infancia y adolescencia maltratada: el trauma complejo [Posttraumatic reactions in child and adolescent abuse: the complex trauma]. *Revista de Psicopatología y Psicología clínica*, 13(3), 159-179.
- MacMillan, H. L., Fleming, J. E., Trocme, N., Boyle, M. H., Wong, M., Racine, Y. A., ... Offord, D. R. (1997). Prevalence of child physical and sexual abuse in the community: Results from the Ontario health supplement. *JAMA*, 278, 131-135.
- Marshall, R. D., Schneider, F. R., Fallon, B. A., Knight, C. B. G., Abbate, L. A., Goetz D, C., ... Liebowitz, M. R. (1998). An open trial of paroxetine in patients with noncombat-related, chronic posttraumatic stress disorder. *Journal of Clinical Psychopharmacology*, 18, 10-18.
- Merritt, D. H. & Klein, S. (2015). Do early care and education services improve language development for maltreated children? Evidence from a national child welfare sample. *Child Abuse & Neglect*, 39, 185-196. doi: 10.1016/j.chiabu.2014.10.011
- Mesa-Gresa, P & Moya-Albiol, L. (2011). Neurobiología del maltrato

- infantil: el "ciclo de la violencia" [Neurobiology of child abuse: the "cycle of violence"]. *Revista de Neurología*, 52(8), 489-503.
- Meyer, I. H., Muenzenmaier, K., Cancienne, J. & Struening, E. (1996). Reliability and validity of a measure of sexual and physical abuse histories among women with serious mental illness. *Child Abuse & Neglect*, 20, 213-219.
- Moreno, R., Martínez, R. & Muñiz, J. (2006). New guidelines for developing multiple choice items. *Methodology*, 2(2), 65-72. doi:10.1027/1614-2241.2.2.65
- Muñiz, J. & Bartram, D. (2007). Improving international tests and testing. *European Psychologist*, 12(3), 206-219. doi:10.1027/1016-9040.12.3.206
- Muñiz, J., Elosua, P. & Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: segunda edición [International Test Commission Guidelines for test translation and adaptation: Second edition]. *Psicothema*, 25, 151-157.
- Muñiz, J. & Fonseca-Pedrero, E. (2008). Construcción de instrumentos de medida para la evaluación universitaria [The construction of measuring instruments for university evaluation]. *Revista de Investigación en Educación*, 5, 13-25.
- Nagata, T., Kiriike, N., Iketani, T., Kawarada, Y. & Tanaka, H. (1999). History of childhood sexual or physical abuse in Japanese patients with eating disorders: Relationship with dissociation and impulsive behaviours. *Psychological Medicine*, 29, 935-942.
- Nanni, V., Uher, R. & Danese, A. (2012). Childhood Maltreatment Predicts Unfavorable Course of Illness and Treatment Outcome in Depression: A Meta-Analysis. *The American Journal of Psychiatry*, 164(4), 141-151.
- Nijenhuis, E. R. S., Spinhoven, P., van Dyck, R., van de Hart, O. & Vanderlinden, J. (1998). Degree of somatoform and psychological dissociation in dissociative disorder is correlated with reported trauma. *Journal of Traumatic Stress*, 11, 711-730.
- Ogata, S. N., Silk, K. R., Goodrich, S., Lohr, N. E., Westen, D. & Hill, E. M. (1990). Childhood sexual and physical abuse in adult patients with borderline personality disorder. *The American Journal of Psychiatry*, 147, 1008-1013.
- Ordóñez-Cambor, N. (2015). *Experiencias traumáticas tempranas y procesos de recuperación en los trastornos psicóticos* [Early traumatic experiences and recovery processes in psychotic disorders]. (Unpublished doctoral thesis). University of Oviedo. Oviedo.
- Ordóñez-Cambor, N., Lemos-Giráldez, S., Paino, M., Fonseca-Pedrero, E., García-Álvarez, L. & Pizarro-Ruiz, J. P. (2014). Relación entre psicosis y experiencias traumáticas tempranas [Relationship between psychosis and early traumatic experiences]. *Anuario de Psicología/The UB Journal of Psychology*, 44(3), 283-294.
- Organización Mundial de la Salud [World Health Organization] (1999). *WHO: Report of the Consultation on Child Abuse Prevention*. Geneva, 29-31 March 1999.
- Osóiro, F. L., Salum, G. A., Donadon, M. F., Forni-dos-Santos, L., Loureiro, S. R. & Crippa, J. A. S. (2013). Psychometrics properties of Early Trauma Inventory Self Report- Short Form (ETISR-SR) for the Brazilian Context. *PLoS ONE*, 8(10), e76337. doi:10.1371/journal.pone.0076337
- Palmer, R. L., Chaloner, D. A. & Oppenheimer, R. (1992). Childhood sexual abuse with adults reported by female psychiatric patients. *British Journal of Psychiatry*, 160, 261-265.
- Paris, J., Zweig-Frank, H. & Guzder, J. (1994). Risk factors for borderline personality in male outpatients. *Journal of Nervous and Mental Disease*, 182, 375-380.
- Park, S. G., Bennett, M. E., Couture, S. M. & Blanchard, J. J. (2013). Internalized stigma in schizophrenia: relations with dysfunctional attitudes, symptoms, and quality of life. *Psychiatry Research*, 205(1-2), 43-47. doi: 10.1016/j.psychres.2012.08.040
- Pennebaker, J. W. & Susman, J. R. (1988). Disclosure of traumas and psychosomatic processes. *Social Science and Medicine*, 26, 327-332.
- Pereda, N. (2009). Consecuencias psicológicas iniciales del abuso sexual infantil [Short-term psychological consequences of child sexual abuse]. *Papeles del Psicólogo*, 30(2), 135-144.
- Pereda, N. (2010). Consecuencias psicológicas a largo plazo del abuso sexual infantil [Long-term psychological consequences of child sexual abuse]. *Papeles del Psicólogo*, 31(2), 191-201.
- Plaza, A., Torres, A., Martín-Santos, R., Gelabert, E., Imaz, M. L., Navarro, P., ... García-Esteve, L. (2011). Validation and Test-Retest Reliability of Early Trauma Inventory in Spanish Postpartum Women. *The Journal of Nervous and Mental Disease*, 199(4), 280-285. doi:10.1097/nmd.0b013e31821245b9
- Riggs, D. S., O'Leary, K. D. & Breslin, F. C. (1990). Multiple correlates of physical aggression in dating couples. *Journal of Interpersonal Violence*, 5, 61-73.
- Roy, C. A. & Perry, C. (2004). Instruments for the assessment of childhood trauma in adults. *Journal of Nervous and Mental Disease*, 192(5), 343-351.
- Russ, M. J., Shearin, E. N., Clarkin, J. F., Harrison, K. & Hull, J. W. (1993). Subtypes of self-injurious patients with borderline personality disorder. *American Journal of Psychiatry*, 150, 1869-1871.
- Russell, D. E. H. (1986). *The secret trauma: Incest in the lives of girls and women*. New York: Basic Books.
- Ryan, S. W., Rodríguez, N., Rowan, A. & Foy, D. W. (1992). Psychometric analysis of the Sexual Abuse Exposure Questionnaire (SAEQ). In *Proceedings of the 100th Annual Convention of the American Psychological Association*. Washington, DC: American Psychological Association.
- Sala, R., Goldstein, B. I., Wang, S. & Blanco, C. (2014). Childhood maltreatment and the course of bipolar disorders among adults: Epidemiologic evidence of dose-response effects. *Journal of Affective Disorders*, 165, 74-80. doi: 10.1016/j.jad.2014.04.035.
- Sanders, B. & Becker-Lausen, E. (1995). The measurement of psychological maltreatment: Early data on the child abuse and trauma scale. *Child Abuse & Neglect*, 19, 315-323.
- Sanmartín, J. (2011). *Maltrato Infantil en la familia de España* [Child Abuse in the family in Spain]. Madrid: Ministry of Health, Social Policy and Equality.
- Schmeiser, C. B. & Welch, C. (2006). Test development. In R. L. Brennan (Ed.), *Educational Measurement (4th ed.)* (pp. 307-353). Westport, CT: American Council on Education/Praeger.

- Schäfer, I., Fisher, H. L., Aderhold, V., Huber, B., Hoffmann-Langer, L., Golks, D., ... Harfst, T. (2012). Dissociative symptoms in patients with schizophrenia: Relationships with childhood trauma and psychotic symptoms. *Comprehensive Psychiatry*, *53*(4), 364-371. doi: 10.1016/j.comppsy.2011.05.010
- Shenk, C. E., Putnam, F. W. & Noll, J. G. (2013). Predicting the accuracy of facial affect recognition: The interaction of child maltreatment and intellectual functioning. *Journal of Experimental Child Psychology*, *114*(2), 229-242. doi: 10.1016/j.jecp.2012.08.007
- Shonkoff, J. P., Garner, A. S., Siegel, B. S., Dobbins, M. I., Earls, M. F., Garner, A. S., ... Wood, D. L. (2011). The Lifelong Effects of Early Childhood Adversity and Toxic Stress. *Pediatrics*, *129*(1), e232-e246. doi:10.1542/peds.2011-2663
- Silk, K. R., Lee, S., Hill, E. M. y Lohr, N. E. (1995). Borderline personality disorder symptoms and severity of sexual abuse. *American Journal of Psychiatry*, *152*, 1059-1064.
- Simón, C., López, J. L. & Linaza, J. L. (2000). *Maltrato y desarrollo infantil [Child abuse and development]*. Madrid: Universidad Pontificia de Comillas.
- Soloff, P. H., Lynch, K. G. & Kelly, T. M. (2002). Childhood abuse as a risk factor for suicidal behavior in borderline personality disorder. *The Journal of Personality Disorders*, *16*, 201-214.
- Subica, A. M. (2013). Psychiatric and physical sequelae of childhood physical and sexual abuse and forced sexual trauma among individuals with serious mental illness. *Journal of Traumatic Stress*, *26*(5), 588-596. doi: 10.1002/jts.21845
- Teicher, M. H. & Smanson, J. A. (2013). Childhood maltreatment and psychopathology: A case for ecophenotypic variants as clinically and neurobiologically distinct subtypes. *The American Journal of Psychiatry*, *170*(10), 1114-1133. doi: 10.1176/appi.ajp.2013.12070957
- Thabrew, H., de Sylva, S. & Romans, S. E. (2012). Evaluating childhood adversity. *Advances in psychosomatic medicine*, *32*, 35-57. doi: 10.1159/000330002
- Thompson, A. D., Nelson, B., Yuen, H. P., Lin, A., McGorry, P. D., Wood, S. J. & Yung, A. R. (2014). Sexual trauma increases the risk of developing psychosis in an ultra high-risk "prodromal" population. *Schizophrenia Bulletin*, *40*(3), 697-706. doi: 10.1093/schbul/sbt032
- Tikka, M., Luutonen, S., Ilonen, T., Tuominen, L., Kotimäki, M., Hankala, J. & Salokangas, R. K. (2013). Childhood trauma and premorbid adjustment among individuals at clinical high risk for psychosis and normal control subjects. *Early Intervention in Psychiatric*, *7*, 51-57. doi:10.1111/j.1751-7893.2012.00391.x
- Van Nierop, M., Viechtbauer, W., Gunther, N., van Zelst, C., de Graaf, R., ten Have, M., ... van Winkel, R. (2014). Childhood trauma is associated with a specific admixture of affective, anxiety, and psychosis symptoms cutting across traditional diagnostic boundaries. *Psychological Medicine*, *45*(6), 1277-1288. doi:10.1017/s0033291714002372
- Varese, F., Smeets, F., Drukker, M., Lieveise, R., Lataster, T., Viechtbauer, W., ... Bentall, R. P. (2012). Childhood adversities increase the risk of psychosis: a metaanalysis of patient-control, prospective- and cross-sectional cohort studies. *Schizophrenia Bulletin*, *38*, 661-671. doi: 10.1093/schbul/sbs050
- Viezel, K. D., Freer, B. D., Lowell, A. & Castillo, J. A. (2014). Cognitive abilities of maltreated children. *Psychology in the Schools*, *52*(1), 92-106. doi:10.1002/pits.21809
- Wagner, A. W. & Linehan, M. M. (1994). Relationship between childhood sexual abuse and topography of parasuicide among women with borderline personality disorder. *Journal of Personality Disorder*, *8*, 1-9.
- Wilson, M. (2005). *Constructing measures: An item response modeling approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Young, J. C. & Widom, C. S. (2014). Long-term effects of child abuse and neglect on emotion processing in adulthood. *Child abuse & Neglect*, *38*(8), 1369-1381. doi: 10.1016/j.chiabu.2014.03.008
- Zanarini, M. C., Gunderson, J. G., Marino, M. F., Schwartz, E. O. & Frankenburg, F. R. (1989). Childhood experiences of borderline patients. *Comprehensive Psychiatry*, *30*, 18-25