

The Security in the Interparental Subsystem Scale: Evidence of Validity in Brazil

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Abstract: emotional regulation in adolescents is an aspect little observed, especially by researchers and health professionals in Brazil. This study aimed to translate, adapt and examine the psychometric properties, internal consistency and construct validity of The Security in the Interparental Subsystem Scale (SIS) in a sample of 345 adolescents aged 14 to 18 years ($M = 16.06$ years, $SD = 1.22$). The results, obtained by Structural Equation Modeling, showed a six-factor version, namely: emotional reactivity, behavioral dysregulation, avoidance, involvement, destructive representations of the family, and representations of conflict overflow. The models showed good adjustment with invariance between the analyzed groups. The reliability of the scale showed adequate values. The tests performed suggest that the SIS presents satisfactory psychometric properties in the population of adolescents in the sample, therefore, a reliable measuring instrument for use in Brazil by clinicians and researchers.

Keywords: emotional regulation, adolescents, adaptation, psychometrics

The Security in the Interparental Subsystem Scale: Evidências de validade no Brasil

Resumo: a regulação emocional em adolescentes é um aspecto pouco observado, sobretudo, por pesquisadores e profissionais de saúde no Brasil. Este estudo teve como objetivo traduzir, adaptar e examinar as propriedades psicométricas, consistência interna e validade de constructo da *The Security in the Interparental Subsystem Scale* (SIS) em uma amostra de 345 adolescentes com idades entre com idades entre 14 e 18 anos ($M = 16,06$ anos, $DP = 1,22$). Os resultados, obtidos pela Modelagem de Equações Estruturais, evidenciaram uma versão de seis fatores, são eles: reatividade emocional, desregulação comportamental, evasão, envolvimento, representações destrutivas da família, representações do transbordamento do conflito. Os modelos apresentaram bom ajuste com invariância entre os grupos analisados. A confiabilidade da escala apresentou valores adequados. Os testes realizados sugerem que a SIS apresenta propriedades psicométricas satisfatórias na população de adolescentes da amostra, portanto, um instrumento de medida confiável para uso no Brasil por clínicos e pesquisadores.

Palavras-chave: regulação emocional, adolescentes, adaptação, psicometria

Escala de Seguridad en el Subsistema Interparental: Pruebas de validez en Brasil

Resumen: la regulación emocional en los adolescentes es un aspecto poco observado, especialmente por los investigadores y los profesionales de la salud en Brasil. Este estudio tuvo como objetivo traducir, adaptar y examinar las propiedades psicométricas, la consistencia interna y la validez de constructo de *La Escala de Seguridad en el Subsistema Interparental* (SIS) en una muestra de 345 adolescentes de 14 a 18 años ($M = 16.06$ años, $DT = 1.22$). Los resultados, obtenidos mediante Modelización de Ecuaciones Estructurales, mostraron una versión de seis factores: reactividad emocional, desregulación conductual, evitación, implicación, representaciones destructivas de la familia, representaciones del desbordamiento del conflicto. Los modelos mostraron un buen ajuste con invarianza entre los grupos analizados. La confiabilidad de la escala mostró valores adecuados. Las pruebas realizadas sugieren que el SIS tiene propiedades psicométricas satisfactorias en la muestra de adolescentes, por lo tanto, un instrumento de medición fiable para su uso en Brasil por clínicos e investigadores.

Palabras clave: regulación emocional, adolescentes, adaptación, psicometría

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High levels of conflict in the couple, whether in the marital or parental subsystem, impact the relationships in the parental subsystem in which the caregivers' direct relationship with the offspring occurs, affecting the children's perception of their safety (Vian et al., 2018). In this sense, the Theory of Emotional Security (TES), seeks to understand the reasons and mechanisms through which parental conflict affects children (Davies & Cummings, 1994). According to the theory, children and adolescents seek to maintain their safety and security even in a conflictive environment between their parents (Davies & Martin, 2013).

There are three domains of emotional security response: (a) emotional reactivity, characterized by intense distress and prolonged dysregulation in the face of parental conflict; (b) regulation of behavior in the face of exposure to conflict; (c) internal representations of interparental difficulties for the well-being of self and family. The cumulative effect of the responses may increase vulnerability to the development of psychopathologies (Davies & Martin, 2013), specifically, through internalizing and externalizing symptoms and social problems (Davies et al., 2016; van Eldik et al., 2020). The three domains of responses have mutual interaction: emotional reactivity, regulation of conflict exposure, and internal representations of family relationships (Davies & Cummings, 1994). These interactions are fraught with complexity, posing challenges to their measurement.

In 2002, the Security in the Interparental Subsystem (SIS) Scale was developed to assess how children seek to preserve their emotional security in the context of conflict between parents (Davies et al., 2002). The scale was constructed with 43 items and assesses the three domains that constitute emotional security. The domain of emotional reactivity is represented by the latent variables emotional reactivity and behavioral dysregulation, the domain of conflict exposure regulation is composed of the latent variables avoidance and involvement, and finally, the domain of internal representation of conflict is composed of the variables constructive family representations, destructive family representations, and conflict overflow.

The original study assessed 1032 students aged 8-14 years ($M = 12.57$). Exploratory and confirmatory factor analyses were performed with adequate fits and internal consistency with values above 0.60 (Davies et al., 2002). The SIS has 7 subscales to assess children's perceived emotional safety. Emotional reactivity assesses frequent, prolonged, and dysregulated experiences of distress. Behavioral dysregulation refers to behavioral arousal and lack of control. The Avoidance subscale assesses strategies used to escape or avoid interparental conflict or its adverse consequences. Involvement contemplates the willingness to get emotionally or behaviorally involved in parental conflicts. The constructive family representations subscale assesses the extent to which interparental conflict is perceived as benign or constructive for the family. The destructive consequences are contemplated through the destructive family representations. Finally, the subscale representations of conflict overflow assess the extent to which children perceive a conflict between parents as affecting their well-being (Cummings & Davies, 2010).

Several empirical types of research have been developed from this instrument, gathering consistent and conclusive evidence that conflicts between parents harm children's psychosocial development. Most of the research using the SIS was conducted in the United States (Bergman et al., 2018; Davies et al., 2002, 2016; Li et al., 2020). In Portugal, Silva et al. (2016), adapted the scale using a sample of 229 Portuguese adolescents aged 10-

18 years ($M=13$). Exploratory factor analysis indicated a 6-factor model with good internal consistency, as well as discriminant and concurrent validity. Unlike the US version, the 6-factor solution excluded behavioral dysregulation and destructive family representations subscales. In addition, the avoidance dimension was split into inhibition avoidance and withdrawal avoidance. Despite decreasing the number of factors compared to the original scale, it is concluded that the Portuguese version corresponds to the TES and supports the structure of the original SIS (Silva et al., 2016).

Another validation of the SIS, now for the Scandinavian context (Holt et al., 2020), proposed two versions of the scale testing 393 families. The first was a reduced version with 17 items and six factors, and the second was a larger version that merged SIS items with items from The Children's Perception of the Interparental Conflict Scale (CPIC) by Grych et al. (1992), containing 38 items. The study evaluated 390 adolescents aged 10 to 15 years ($M = 12.53$, $SD = 1.60$), and the results presented evidence that the scale worked for the Scandinavian context in a similar way to the North American context.

In Brazil, no evidence and validation studies of the emotional safety scale were found. According to Borsa et al. (2012), when translating scales and inventories from other contexts, it is necessary to adapt them to the environment in which they will be used, since meanings or relevance different from those proposed when the instrument was built may emerge. Considering these aspects and the need for Brazilian research about the impacts of interparental conflicts on children, especially in the adolescent phase in which there is a scarcity of research (Vian et al., 2018), this study aimed to translate, adapt, and examine the psychometric properties, internal consistency, and construct validity of The Security in the Interparental Subsystem Scale (SIS) in a sample of adolescents. As a hypothesis, it is proposed that the SIS replicates a factor structure similar to the North American model.

Method

Participants

This is a quantitative, cross-sectional research that employs a descriptive and correlational design. A total of 345 adolescents participated in the study, 38.6% boys ($n = 133$) and 61.4% girls ($n = 212$). The minimum age of the adolescents was 14 years, and the maximum was 18 years ($M = 16.05$; $SD = 1.12$). Most of the adolescents, 93.04% ($n = 321$) lived in the interior of the state of Rio Grande do Sul and 6.09% ($n = 24$) in Porto Alegre or metropolitan region. As for schooling, 12.9% ($n = 44$) were in elementary school, 83.6% ($n = 289$) were in high school, and 3.5% ($n = 12$) were in college. As for family status, 81.7% ($n = 282$) of the parents were married, and 17.7% ($n = 61$) were separated but participated jointly in the child's education.

Instruments

Sociodemographic questionnaire: consisting of 24 questions that allow the survey of the sociodemographic data of the research participants through information such as sex, age, education, city of residence, and the number of siblings.

The Security in the Interparental Subsystem Scale - SIS (Davies et al., 2002). It assesses emotional insecurity according to Davies and Cummings' (1994) theory of emotional security. It is a self-report measure that encompasses three dimensions of emotional insecurity: internal representation of conflict, emotional reactivity, and regulation of exposure to conflict and is composed of 43 questions scored on a *Likert* scale ranging from 1 (not true) to 4 (completely true). The operationalization of the variables is done through 7 dimensions: emotional reactivity (e.g. When my parents argue I feel angry), behavioral dysregulation (e.g. After my parents argue I hit, kick, slap, or throw things at people in my family), avoidance (e.g. When my parents have an argument I put it out of my mind), involvement (e.g. When my parents have an argument I try to solve the problem for them), constructive family representations (e.g. When my parents argue I know everything will be okay), destructive family representations (e.g. When my parents have an argument I worry about the future of my family), conflict overflow representations (e.g. When my parents argue I can't get rid of bad feelings).

Achenbach System of Empirically Based Assessment - ASEBA scales (Achenbach System of Empirically Based Assessment [ASEBA], 2014). The purpose of this scale is to estimate child and adolescent behavior by integrating information from multiple informants. In this study, only the YSR was used, consisting of 8 dimensions of behavioral problems, these are anxiety/depression (e.g. I am fearful or anxious), isolation/depression (e.g. I cry a lot), somatic complaints (e.g. I have physical symptoms with no biological cause), social problems (e.g. I prefer to be alone rather than in the company of others), thinking problems (e.g. I think about killing myself), attention problems (e.g. I am clumsy, clumsy, uncoordinated), rule-breaking behavior (e.g. I steal things at home), aggressive behavior (e.g. I get into a lot of fights), and by the topic other problems (e.g. I smoke cigarettes) (Achenbach & Rescorla, 2001). Internal reliability was found to have acceptable values in this study for the dimensions of anxiety/depression ($\alpha = 0.88$), withdrawal ($\alpha = 0.80$), somatic complaints ($\alpha = 0.83$) which form the internalizing problems domain, rule-breaking behavior ($\alpha = 0.70$) and aggressive behavior ($\alpha = 0.81$) which constitute the externalizing problems domain, and the social problems dimension ($\alpha = 0.68$).

Procedures

Data collection. Data collection was conducted face-to-face in public and private schools in the state of Rio Grande do Sul. After authorization from the academic director, the research team selected the classes according to the age of the participants. The students who showed interest in

participating in the research took the Informed Consent Form for their parents to sign. In the second step, the students who brought the informed consent form with the parents' agreement also signed the consent form to participate in the research and answered the instrument in a meeting of approximately 90 minutes.

Data analysis. Initially, data distribution was checked by the Kolmogorov-Smirnov test, with Lillifors correction. The assumption of data normality was not met and, therefore, non-parametric tests were used. Subsequently, descriptive statistical analyses were performed as to the median, mode, and standard deviation presented by the adolescents in the factors indicated in the original scale. *Spearman's* correlation analyses (Field, 2018), between the items of the scales and between the factors were performed to verify associations between their subscales.

To establish the psychometric properties of the Brazilian version of the SIS, Confirmatory Factor Analyses (CFA) were performed to verify the factor structure in the surveyed sample. The objective of CFA is to identify the latent factors that account for the variation and covariation among a set of indicators, and it is used when there is a strong conceptual basis and supported by evidence from previous studies. This type of analysis allows us to verify how well the constructs are being measured by the questions answered by the participants (Hair et al., 2019).

In this sense, structural equation modeling has the advantage of assessing the degree to which a set of items reflects the theoretical latent construct that those items are supposed to measure, the so-called construct validity of a proposed measurement theory, and thus verifies the measurement accuracy. According to Hair et al. (2019, p. 591), "Evidence of construct validity assures that measures taken from a sample represent the true score that exists in the population." Thus, if an AFC model fits and demonstrates construct validity, the measurement theory is supported.

The validity of the measurement model depends on checking its quality levels. The adherence and fit of the predicted model to the collected data indicate whether the scale structure is adequate and are psychometric indicators of the scale's construct validity. The model fit quality indices used were the Chi-square (χ^2), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA) with a 90% confidence interval. Maximum Likelihood (ML) was used as the estimation method. The model has an adequate fit if there are CFI and TLI values higher than 0.900, and RMSEA values lower than 0.08. If these indices are reached the model will present construct validity (Hair et al., 2019).

To verify the invariance of parameters between the groups of girls and boys, Confirmatory Multigroup Factor Analyses (ML) were performed. Finally, to analyze the reliability of the scale, Cronbach's Alpha, Mean Extracted Variance (MEV), and Composite Reliability of the scale (CR) were tested, as indicated by Hair et al. (2019).

To verify the convergent validity of the proposed factor structure, Spearman correlation analyses were performed

with the YSR scale (ASEBA, 2014). A test has concurrent validity if it shows a correlation with the instrument that measures the construct theoretically related to what the test proposes to measure (Martynova et al., 2018).

Ethical Considerations

The present study was approved by the Research Ethics Committee of the Universidade do Vale do Rio dos Sinos, UNISINOS, identified by opinion number 2.658.480; CAAE: 88282318.3.0000.5344. The procedures adopted followed strictly what is stated in Resolution 510/2016 of the National Health Council, meeting the relevant ethical and scientific grounds, as read in the TCLE and TA.

Results

Translation procedures: to meet the objective of translating and culturally adapting The Security in the Interparental Subsystem (SIS) Scale for use in Brazil and establishing psychometric validity evidence in a sample of adolescents, a series of steps were performed for translation, adaptation, and subsequent data analysis. First, the SIS was independently translated by two bilingual translators, one of them with extensive knowledge in the field of psychology, following standard translation procedures (Hilton &

Skrutkowski, 2002). The synthesis of the versions was performed by the researcher considering guidelines that each item should be evaluated individually taking into account semantic, idiomatic, conceptual, linguistic, and contextual differences (Borsa et al., 2012). Sequentially, the scale synthesis was presented to a group of experts formed by four psychologists with clinical and research experience who analyzed terms, expressions, presentation, and instructions of the scale to ensure that the conceptual meaning was maintained and to ensure that the wording of the questions was understandable to adolescents.

In the next step, a pre-test of the version took place with the target group of the study. In this step, three adolescents individually filled out the scale to check if the items were understandable to them. After filling it out, the researcher talked to the respondents and confirmed that they found no difficulties in understanding the questions. Finally, back-translation was performed.

Confirmatory Factor Analyses

As per previous studies, the SIS presents four different structural versions, therefore, all factor structures found in the literature were tested, including the scale in its original version (Cummings & Davies, 2010; Davies et al., 2002; Holt et al., 2020; Holt et al., 2021; Silva et al., 2016). The models tested are presented in Table 1.

Table 1

Confirmatory factor analysis of the four SIS factor structures

Models	χ^2	df	p	TLI	CFI	RMSEA (90%)
Model 1	1545.21	598	<0.001	0.820	0.838	0.068 (0.064-0.072)
Model 2	1721.97	550	<0.001	0.764	0.782	0.073 (0.075-0.083)
Model 3	400.24	137	<0.001	0.878	0.902	0.075 (0.066-0.083)
Model 4	261.82	103	<0.001	0.901	0.925	0.067 (0.057-0.077)

Note. χ^2 =Qui-quadrado; df=degrees of freedom; p=significance; CFI=Comparative Fit Index; TLI=Tucker Lewis Index; RMSEA=Root-Mean-Square Error of Approximation.

All models lacked fit with the addition of covariances between errors. Model 1, by Davies et al. (2002), and Model 2, by Cummings and Davies (2010), have a structure of 38 and 35 items, respectively, and showed inadequate adjustment. These models were organized into the subscales of emotional reactivity, behavioral dysregulation, involvement, avoidance, constructive family representations, destructive family representations, and conflict overflow representations. Model 3, by Silva et al. (2016), which is a reduced version, also did not reach adequate indices, this one presents 6 subscales, they are: avoidance by inhibition and avoidance by withdrawal, constructive representation of conflict, representations of conflict overflow, emotional reactivity, and involvement. Finally, Model 4, by Holt et al. (2020),

was the only one that showed adequate fit. This model consists of 17 items grouped into 6 subscales: emotional reactivity, behavioral dysregulation, involvement, avoidance, destructive representations of the family, and representations of conflict overflow.

Figure 1 shows the unstandardized weights of the items in Model 4 about the subscale factors and the covariances between the latent variables”.

Convergent validity was verified from the positive and significant correlations between the SIS subscales with most of the symptoms observed in the YSR, with small and medium effects, as presented in Table 2. However, with aggressive behavior, significant correlations are only verifiable with behavioral discontent and representations of conflict overflow.

Figure 1

Confirmatory factor analysis and covariances between latent variables

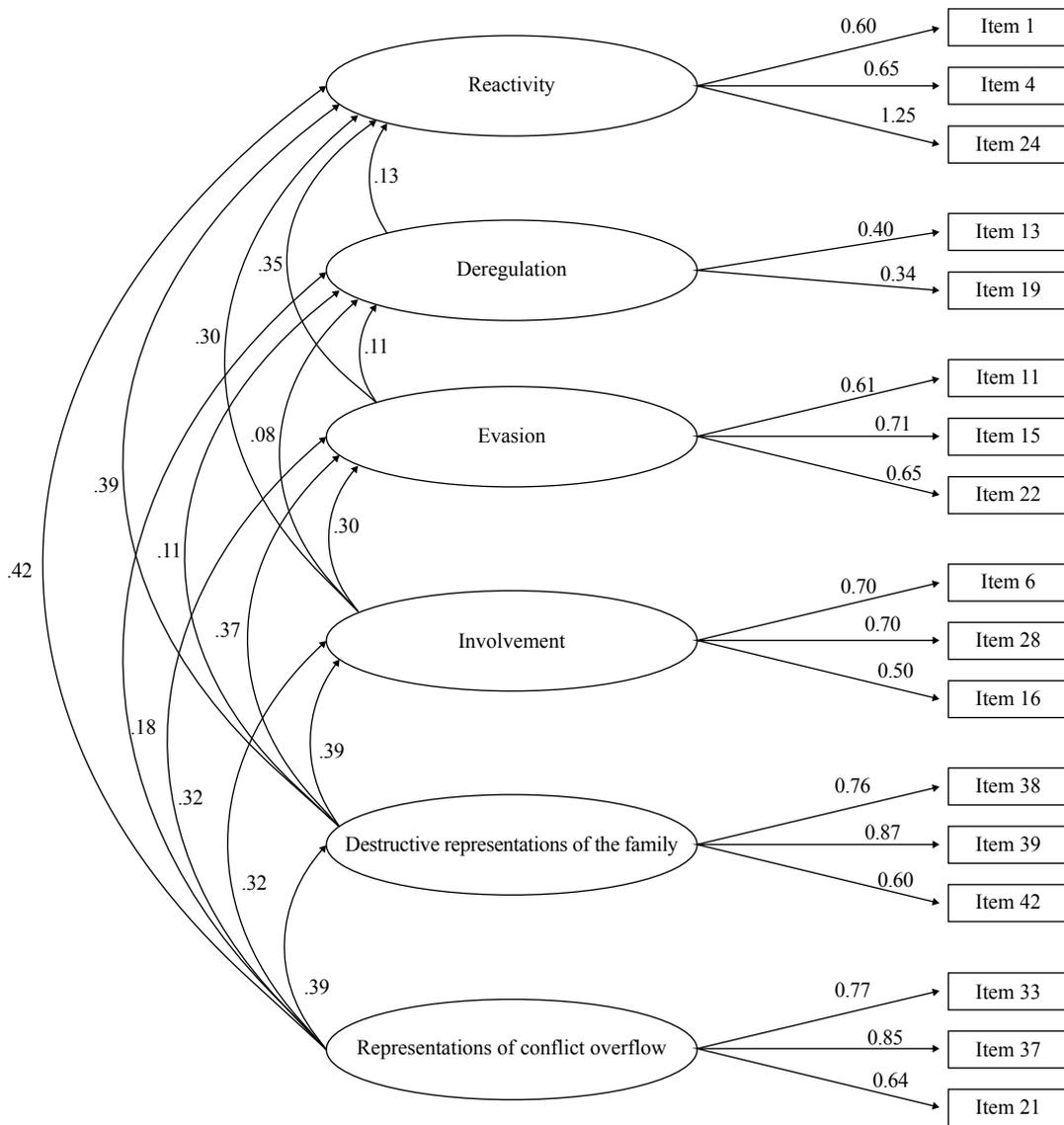


Table 2

Averages, reliability, and correlations between SIS subscales

	Reliability					YSR				
	Average(DP)	α	CR	EMV	AD	R	SC	SP	BR	AB
1. Reactivity emotional	5.91 (2.69)	0.78	0.70	0.50	.378**	.262**	.271**	.305**	-.043	.084
2. Behavioral dysregulation	2.53 (0.91)	0.42	0.64	0.49	.138**	.119*	.116*	.146**	.112*	.146**
3. Evasion	6.37 (2.55)	0.64	0.80	0.50	.349**	.281**	.289**	.278**	-.048	.110*
4. Involvement	7.10 (2.62)	0.79	0.74	0.50	.179**	.018	.124*	.135*	-.069	.056
5. Destructive representations of the family	7.40 (2.93)	0.78	0.75	0.50	.215**	.168**	.153**	.207**	.017	.085
6. Representations of the conflict overflow	5.67 (2.57)	0.78	0.75	0.50	.354**	.233**	.236**	.303**	.108*	.169**

Note. α = Alpha de Cronbach; CR=Composite Reliability e EMV=Extracted Mean Variance; AD=Anxiety and Depression; R=Retraction; SC=Somatic complaints; SP= Social Problems; BR=Breaking rules; AB=Aggressive Behavior.

Multigroup analyses were performed to verify that the covariance structure would be invariant, as per the guidelines of Martynova et al. (2018). Equivalence testing is performed with a test of equality of covariance structures between boys and girls in which the acceptance of H0 shows that the groups have equivalent structures (Martynova et al., 2018). In the scientific literature, it is

indicated that structural invariance between the groups be assumed in cases where there is no significant difference between the χ^2 of the models and a difference of at most 0.010 in the CFI fit index occurs. According to Table 3, it was verified that it is possible to assume parameter invariance between boys and girls in the sample, which is relevant for future uses of the scale.

Table 3
Multigroup confirmatory factor analysis

Model	χ^2	df	p	$\Delta\chi^2$	p	CFI	RMSEA (90%)
Configural	410.54	217	<0.001	10.21	<0.520	0.908	0.052 (0.045-0.060)
Metric	435.03	238	<0.001	34.61	<0.344	0.909	0.051 (0.043-0.058)
Scalar	492.51	256	<0.001	92.08	<0.000	0.907	0.049 (0.042-0.056)

Reliability and Extracted Mean Variance

Cronbach's alpha, the Composite Reliability measure, and the Average Variance Extracted from the factors of the SIS subscales were analyzed. Considering the reliability of the scale, the results were quite satisfactory. The total *Cronbach's* alpha value of the scale was $\alpha = 0.89$, similar to the reduced version (Holt et al., 2020), with a value of $\alpha = 0.88$. It is noteworthy that the factors behavioral dysregulation and dropout did not obtain such satisfactory values for *Cronbach's* alpha, however, in the analyses of mean-variance extracted and composite reliability, only the behavioral dysregulation factor remained with values lower than indicated, namely $\alpha = 0.42$ and VME = 0.49. Table 2 shows the values of Cronbach's alpha, composite reliability, and average variance extracted for all subscales.

Discussion

Adequate instruments to assess the impacts of parental conflict on children's psychological functioning are essential both for the advancement of research in developmental psychopathology and for clinical practice and policy development. Considering that no articles on emotional security were found in Brazil, this study sought to translate, adapt, and examine the psychometric properties, internal consistency, and construct validity of The Security in the Interparental Subsystem Scale (SIS) in a sample of adolescents between 14 and 18 years old.

As a first step, the scale was translated, adapted, and back-translated. Subsequently, the data collected was submitted to confirmatory factor analysis trying to reproduce one of the four-factor structures existing in the literature. For this context, multigroup confirmatory factor analyses were also performed to check if the scale presented differently for boys and girls and, finally, analyses of the scale's reliability and concurrent validity.

The CFA's showed that the six-factor structure of Holt et al. (2020), was confirmed in the adolescent sample, with the factors emotional reactivity, behavioral dysregulation, avoidance, involvement, destructive representations of family, and representations of conflict overflow. The scale maintained two factors from each of the regulatory response domains proposed by Emotional Security Theory (Davies & Cummings, 1994; Davies & Martin, 2013): emotional reactivity, internal representations of conflict, and regulation of conflict exposure. All factor loadings were significant and met the parameters indicated by Hair et al. (2019), except for the behavioral dysregulation factor that scored below 0.60 for *Cronbach's* alpha and below 0.500 for the average variance extracted.

The CFA was used as a tool to validate the measurement theory, therefore, the sample data confirm the construct validity of the scale (Hair et al., 2019). In this sense, it can be mentioned that the scale reduced and adapted for the Brazilian context, supports the assumptions of the Emotional Security Theory (Davies & Cummings, 1994; Davies & Martin, 2013), in addition to expanding the empirical evidence and the operationalization of the theory for contexts other than the original. A construct (TES) is therefore conjectured, broad, and consistent enough to assess basic and universal needs in children, such as feeling safe and secure in the family environment, a system that provides the first elements for identity formation (Vian et al., 2018). Furthermore, multi-group analyses indicate that the reduced structure of the scale can be replicated for both boys and girls, replicating results found previously in other research (Bergman et al., 2018; Davies et al., 2016; Li et al., 2020).

It is noteworthy that all items of the reduced version were allocated in the same factor of the original scale, evidencing that this version is adequate to observe the emotional security construct. However, for the context evaluated, the factorial structures that maintained the constructive conflict representation factor were not adjusted, which repeatedly proves the need for studies in each context applied.

Moreover, similarly to the adaptations made in Norway and Portugal, only reduced structures of the scale found adequate adjustments in the samples studied. From this perspective, there are advantages to developing short versions of length scales. Shorter versions can reduce testing time for children and adolescents and prevent challenges related to concentration and the possibility that participants are being driven to exhaustion, and ensure that researchers and clinicians obtain valid and empirically reliable information (Holt et al., 2020; Holt et al., 2021).

Internal consistency analyses indicated that the scales follow the minimally accepted benchmarks of 0.60 for *Cronbach's* alpha and composite reliability and 0.500 for VME (Hair et al., 2019). Except for the behavioral dysregulation factor, $\alpha = 0.42$ and VME = 0.49 which was below the reference values, in addition to *bootstrap* for Item 19 with a range of 0.40 to 2.04, which sets up a large variability for the 90% CI. It is noteworthy that low-reliability values also appear in this factor in all previous studies that the factor structure maintains the behavioral dyscontrol factor. The result can be explained in part by the tendency for factors with few items to produce lower internal consistency values since this factor has only two items. However, future research may reevaluate the scale composition, item 19.

The analysis of the intercorrelations between the emotional and behavioral problems assessed by the YSR and the factors of the SIS showed that there are correlations between the problems and emotional security. It is noteworthy that anxiety and depression, withdrawal, and somatic complaints (internalizing problems), showed significant positive correlations with all factors of the SIS, different from aggressive behavior and rule-breaking that make up the externalizing problems domain. It is thus assumed that regulatory processes are more associated with internalizing symptoms since externalizing ones can be explained in association with other behavioral expressions (Machado & Mosmann, 2020).

In addition, the scale can be used for clinical assessment, for example, for adolescent understanding regarding the regulation of emotions such as fear, distress, and anger, which can be discovered by assessing emotional reactivity. It can also help in the identification of emotions such as guilt in the face of inter-parental conflicts, providing the professional with ways to redefine such perceptions of the adolescent. As for coping behavior through identification, clinicians can guide adolescents in building adaptive and appropriate ways of coping with family situations, including interventions involving the whole family (Davies & Martin, 2013; Holt et al., 2020; Holt et al., 2021; Vian et al., 2018).

Limitations of this study are the breadth of application of the scale, restriction to adolescents aged 14 to 18 years, and the need to test items for construct validity. Another possibility is discriminant validity testing in which one can separate clinical and non-clinical groups. Future research can also verify the predictive validity and convergent validity of the scale, besides testing it with groups from different contexts and characteristics from the one studied in this

research, following procedures that can guarantee the quality and replication of the scale.

Finally, the statistical tests performed suggest that the SIS presents satisfactory psychometric properties in the population of adolescents in the sample. It is, therefore, a reliable measuring instrument for use in Brazil by mental health professionals in the context of clinical evaluation and decision-making about possible interventions of individual or family nature, and researchers, about the compare of data with national and international studies and the accumulation of scientific evidence on the theme of emotional regulation in adolescents.

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