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PARENTING SCALE SELF-TEST: ESTUDO DA ESTRUTURA FATORIAL

PARENTING SCALE SELF-TEST: STUDY OF PSYCHOMETRIC PROPERTIES

PARENTING SCALE SELF TEST: ESTUDIO DE LA ESTRUCTURA FACTORIAL

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RESUMO

Introdução: A Parenting Scale Self Test de Gottman e Declaire (1997) avalia o que os pais pensam sobre as emoções e a forma como lhes reagem e pretende determinar a forma pelo qual os pais ensinam os seus filhos a reconhecer, a expressar e a lidar com as emoções.

Objetivo: O objetivo deste estudo é avaliar as propriedades psicométricas, nomeadamente a estrutura fatorial e a consistência interna.

Métodos: A amostra consistiu em 355 pais (65.07% do género feminino e 34.93% do género masculino), cujos filhos adolescentes têm idades compreendidas entre os 14 e os 20 anos. A natureza do presente estudo é quantitativa, analítica e transversal. Foi realizada uma análise fatorial exploratória através do método de componentes principais com rotação direct oblimin.

Resultados: A estrutura da escala revelou-se diferente da original, apresentando 3 fatores relativos aos estilos parentais face às emoções: fator 1- estilo reprovador (explica 13.75% da variância total); fator 2 - estilo explorador (explica 11.41% da variância total) e fator 3 - estilo aceitador (explica 6.27% variância total). A consistência interna da escala apresentou valores de alfa de .87, .85 e .70, respetivamente.

Conclusões: Esta investigação constitui um passo inicial no estudo das propriedades psicométricas da PSST numa amostra da população portuguesa, e poderá ser um importante contributo para futuras investigações e prática clínica.

Palavras-chave: Estrutura fatorial; Parenting Scale Self-Test; Estilos parentais; Adolescentes

ABSTRACT

Introduction: The Parenting Scale Self-Test (Gottman & Declaire, 1997) evaluates what parents think about emotions and the way they react to them. It also tries to determine the ways by which the parents teach their children to recognize, express and deal with emotions.

Objective: The aim of this study is to evaluate the psychometric properties of PSST, namely its factorial structure and internal consistency.

Methods: The sample consisted of 335 parents (65.07% female and 34.93% male) whose children are between 14 and 20 years of age. The nature of the present study is quantitative, analytical and cross-sectional. An exploratory factorial analysis was conducted using the principal components method with direct oblimin rotation.

Results: The structure of the scale changed from the original, presenting in the Portuguese sample three parenting styles towards emotions: 1st factor – disapproving style (explaining 13.75% of total variance); 2nd factor – explorer style (explaining 11.41% of total variance) and 3rd factor – accepting style (explaining 6.72% of total variance). The internal consistency of the scale showed alpha values of .87, .85 and .70, respectively.

Conclusions: This research constitutes an initial step in the study of the psychometric properties of the PSST in a sample of the Portuguese population, and it can be an important contribution for future research and clinical practice.

Keywords: Factorial structure, Parenting Scale Self-Test; Parenting styles; Adolescents

RESUMEN

Introducción: La Parenting Scale Self Test de Gottman y Declaire (1997) evalúa lo que los padres piensan acerca de las emociones y cómo reaccionan a ellas, y que pretende determinar la forma en que los padres enseñan a sus hijos a reconocer, expresar y hacer frente a las emociones.

Objetivo: El objetivo del presente estudio es evaluar las propiedades psicométricas de la PSST: la estructura factorial y consistencia interna.

Métodos: La muestra consistió en 355 padres (65,07% mujeres y 34,93% hombres), cuyos hijos adolescentes tienen edades comprendidas entre los 14 y los 20 años. La naturaleza de este estudio es cuantitativo, analítico y transversal. Un análisis factorial exploratorio se realizó mediante el método de componentes principales con rotación oblimin directo.

Resultados: La estructura de la escala demostró ser diferente de la original, con 3 factores relacionados con los estilos parentales ante de las emociones: factor 1 - estilo reprovador (explica 13.75% de la varianza total); factor 2 - estilo explorador (explica

11.41% de la varianza total) y factor 3 - estilo aceptador (explica 6.27% de la varianza total). La consistencia interna de la escala reveló respectivamente valores alfa de .87, .85 y .70.

Conclusiones: Esta investigación es un primer paso en el estudio de las propiedades psicométricas de la PSST en un muestra de la población portuguesa, y puede ser una contribución importante para la futura investigación y la práctica clínica.

Palabras clave: Estructura factorial; Parenting Scale Self Test; Estilos parentales; Adolescentes

INTRODUCTION

Based on research about parent-child relationships and the development of emotional regulation skills in children, Gottman, Katz and Hooven, (1996) developed the meta-emotion theory, which argues that parenting styles of emotion socialization relate to their meta-emotion philosophy. The concept of parental meta-emotion philosophy refers to "an organized set of feelings and thoughts about one's own emotions and one's children's emotions" (Gottman et al., 1996, p. 243). Within this framework, each meta-emotion philosophy results in distinct parenting styles of emotion socialization.

The Parenting Scale Self-Test was constructed from this theoretical model that shows that the way parents think and react to their own negative emotional experience determines the attitudes they will have towards the negative emotions of the children and that these, in turn, have repercussions in their children's emotional regulation skills, as well as in other life areas, such as interpersonal relationships and academic performance.

Therefore, studying the psychometric properties of the PSST allows us to know how an instrument of evaluation of the parenting styles of emotional socialization behaves, and then it will allow us to study the effects they have on the adjustment and the competences of the children. In the present research, the authors its factorial structure and internal consistency.

1. THEORETICAL FRAMEWORK

The structured interview on meta-emotion for parents (Katz & Gottman, 1986) is the main instrument for measuring meta-emotion philosophies. Based on the study of this interview, Gottman and Declair (1997) proposed four parenting styles related to emotions: emotion-coaching, laissez-faire, dismissing and disapproving.

The emotion-coaching parenting style is characterized by the acceptance of children's emotional expression. Emotion-coaching parents empathize with and value their children's negative emotions, while helping the child to label the emotions that he or she is feeling, set limits and teach acceptable expression of emotions. The laissez-faire parental style is also characterized by the acceptance and validation of the emotional experience. However, unlike the emotion-coaching style, parents do not set limits on behavior and do not guide the regulation of intense emotional experiences. Parents with a dismissing style consider their children's negative emotional experience to be irrational and do not believe its importance. Thus, they do not accept the negative emotions of their children tending to trivialize and ignore them instead of focusing on the meaning of emotions and promoting their discussion. Also characterized by the non-acceptance of negative emotions in children, the disapproving style rejects emotional expression and may reprimand or punish the children for their emotional expression. These parents believe negative emotions need to be controlled and that they are a sign of weakness.

Meta-emotion theory suggests that the meta-emotion philosophies of parents influence children's emotional regulation abilities as well as their outcomes. A study of Gottman et al. (1996) found that children of parents with an emotion coaching style have fewer illnesses, a greater capacity for emotional regulation, better school performance and more positive relationships with peers. Therefore, in 1997, Gottman and Declaire developed the Parenting Styles Self-Test (PSST), from the meta-emotion interview (Katz & Gottman, 1986). It is a self-response instrument that assesses the parents' beliefs about sadness and anger emotions and how they react to them. Its purpose is to evaluate parenting styles of emotion socialization. Although the research of Gottman at al. (1996) only studied the role of parenting styles of emotion socialization in children aged 4 to 5 years old, the use of PSST in parents with adolescent children was also suggested. The authors of the scale did not study it psychometrically, even though, later on, studies have emerged on the subject.

The first author to study the psychometric properties of PSST was Lee (1999), in a sample of 89 mothers and 11 fathers. For the first administration of the scale Cronbach's alpha values were .33 (laissez-faire), .62 (emotion coaching), .76 (dismissing), and .81 (disapproving), and for the second they were .54, .54, .83 and .87, respectively. In this study, the emotion coaching style represented the predominant parental style in 91 of the 100 participants on the first administration of the scale. Thus, Lee (1999) suggested the existence of two dimensions that underlie the parenting styles proposed by Gottman and Declaire (1997).

The proposed dimensions are approval/disapproval of emotional expression and active/passive response the emotional expression generates. While dismissing and disapproving parenting styles would be a form of disapproval of emotions, *laissez-faire* and emotion coaching would translate into approval. Regarding responses, dismissing and *laissez-faire* styles would be characterized by being a passive response and the disapproving and emotion coaching an active one. In a qualitative assessment of the scale, 25% of respondents criticized the dichotomous response format as it constrains the possibility of responses.

Subsequently, even in a reduced sample of 21 mothers and 10 fathers, Hakim-Larson, Parker, Lee, Goodwin and Voelker (2006), taking into account feedback from Lee study's participants (1999), changed the response format to a Likert type scale, ranging between 1 (always false) and 5 (always true). Thus the scale was renamed to Emotion-Related Parenting Styles Self-Test-Likert (ERPSST-L) and its internal consistency verified as acceptable, obtaining alpha values of .72 (*laissez-faire* and dismissing), .82 (emotion coaching) and .91 (disapproving).

In 2012, Paterson et al. conducted an exploratory factor analyses using principal axis factor extraction with a direct oblimin rotation in two samples of 107 mothers: one whose children had no developmental difficulties and one in which they presented them (e.g., learning difficulties). In both samples 3 common factors were found: emotion coaching, parental rejection of negative emotions and parental acceptance of positive emotions. In the sample of children without developmental difficulties the factorial solution, with 34 items, explained 42.5% of the total variance. The sample with developmental difficulties presented an additional factor whose content refers to feelings of uncertainty/ineffectiveness in emotion socialization. The four factors of this factorial solution included 32 items and explained 47% of the total variance. After this study, the brief version of the ERPSST-L which comprises 20 items distributed by 4 factors (emotion coaching, parental rejection of negative emotions, parental acceptance of positive emotions and feelings of uncertainty/ineffectiveness in emotion socialization) was presented. Each factor retained the 5 items with stronger loadings, ranging from .30 to .91, on the same factor in both samples. It is noteworthy that the items that were part of dismissing and disapproving parenting styles in the original scale converged on the same factor (parental rejection of negative emotions), also only two items belonging to the *laissez-faire* parenting style in the original scale were maintained. The internal consistency values of the final scale varied between .70 and .79 in the sample without developmental difficulties and between .76 and .81 in the sample with developmental difficulties. The research on the influence of the emotion socialization styles proposed by Gottman and Declaire (1997) has been carried out mainly with parents with young children (Gottman et al., 1996; Katz & Windecker-Nelson, 2004; Katz & Windecker-Nelson, 2006). However, some studies began to show that the meta-emotion philosophy of parents relates to the emotional experience of adolescent children. Adolescents whose mothers have an emotion coaching parenting style have shown higher self-esteem and less aggressive behaviors as well as lower depressed mood compared to children whose mothers have a dismissing parenting style (Katz & Hunter, 2007). In a study of Stocker et al. (2007) the emotion coaching parenting style was also found related to lower internalizing symptomatology in children. When mothers accept and offer guidance to adolescents at times when they express anger, they have shown a better ability to regulate this emotion and less externalizing behaviors (Shortt, Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010).

Only one investigation (Gupta, 2012) that used the original dichotomous response scale as an assessment instrument was found. In it, only the emotion coaching and dismissing factors were used, which respectively obtained values of internal consistency of .71 and .80. We also found that other studies have used the Likert-type response format version of the PSST (Hakim-Larson et al., 2006) and the short form of Paterson et al. (2012), or other instruments, such as the structured interview on parent meta-emotion (Parent Meta-Emotion Interview; Katz & Gottman, 1986), the Maternal Emotional Styles Questionnaire (Lagacé-Séguin & Coplan, 2005), which was adapted from Katz and Gottman's (1999) meta-emotion interview, the Coping with Children Negative Emotions (Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002), and the Parent Affect Test (Linehan, Paul, & Egan, 1983).

In this study it is intended to investigate the psychometric properties of PSST (Gottman & Declaire, 1997). Thus, we study the factorial structure and the internal consistency of the scale in a sample of parents with adolescent children in Portugal.

2. METHODS

A quantitative, analytical and cross-sectional study was developed.

2.1 Participants

The sample of 355 parents of the present study consisted of 231 women (65.07%) and 124 men (34.93%). Their ages varied between 33 and 60 years ($M = 45.57$; $SD = 4.31$), and no significant differences between genders were obtained ($t(345) = -.709$, $p = .479$). With regard to the offspring of these parents they indicated that 58.7% were female (202 girls) and 41.3% male (142

boys). Their ages ranged from 14 to 20 years old ($M= 16.23$, $SD= 1.66$), with girls ($M= 16.43$, $SD= 1.63$) being slightly older ($t(341) = 2.53$, $p= .012$) than boys ($M= 15.97$, $SD= 1.68$). Most of the children (92.09%) were aged between 14 and 18 years old. It was found that some parents did not indicate their age or that of their children.

2.2 Measures

The PSST (Parenting Styles Self-Test) is a self-response instrument that seeks to evaluate the parenting style of emotion socialization based on the theory of meta-emotion philosophy (Gottman & DeClaire, 1997).

The instrument comprises 81 items: 23 items belonging to emotion coaching parenting style, 10 items to laissez-faire, 25 items to dismissing and 23 items to disapproving. The response format is dichotomous (True/False); the items marked true being punctuated with 1 and the items marked with false being punctuated with 0. These scores are summed in each factor and divided by the number of items of the corresponding factor. The highest result corresponds to the predominant parenting style of the responding parent.

2.3 Procedure

The National Data Protection Commission and the ethics committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra approved this study.

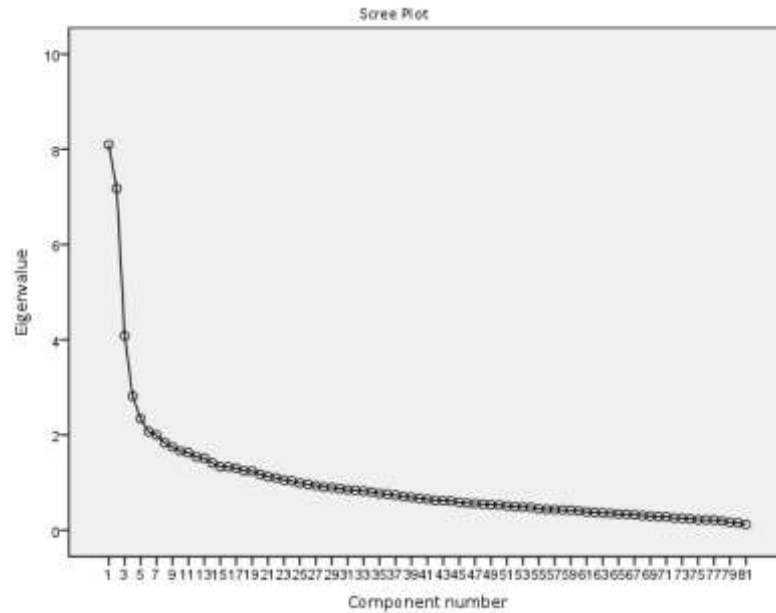
The sample of parents of this study was collected by students who attended the Psychology course as part of a non-compulsory task included in a course unit. The criterion of selection of these students required that they had a maximum age of 20 years old or parents who had another child between the ages of 14 and 20 years old, since it was intended to evaluate the psychometric properties of the scale in parents whose children were within this age group. Students from private English classes and youth movements within this age group were also recruited. The parental evaluation protocol was delivered to the students in an envelope, which contained an explanatory letter about the purposes of the investigation and the indication of returning the sealed envelope to the children after completing the protocol. Subsequently, the envelopes were collected by the investigators in the schools or headquarters of the youth movements.

To study the psychometric properties of PSST we used the *Statistical Package for Social Sciences* (SPSS), version 22.0 for Windows. Initially it was verified if the sample fulfilled the requirements for performing an Exploratory Factor Analysis. The criterion was that a sample of more than 300 cases is considered good for carrying out the analysis in question (Tabachnick and Fidell, 2007). The Kaiser-Meyer-Olkin (KMO) test and the Bartlett sphericity test were used to analyze the adequacy of the data to perform a factorial analysis. The Exploratory Factor Analysis was performed using Principal Component Analysis followed by oblique rotation (direct oblimin), as happened in the study by Paterson et al. (2012) and because this is used when it is theoretically assumed that factors are related to each other (Field, 2009). Factor retention was performed taking into account the scree plot analysis and the Kaiser criterion (eigenvalues greater than 1). The criterion used for loadings was the one of Tabachnick and Fidell (2013) who consider that values greater than or equal to .32 constitute the minimum value for an item to be interpreted in a given factor. The reliability of the scale was studied using Cronbach's alpha. The magnitude of the correlations of each item with the total scale was analyzed.

3. Results

A Principal Component Analysis was performed, where a KMO value of .811 - a value that is considered very good (Hutcheson and Sofroniou 1999 cit in Field, 2009) was observed. Bartlett's sphericity test ($\chi^2(1128) = 5383,716$; $p = .000$) was significant and also an indicator of the adequacy of the data for the factorial analysis.

The Principal Components Analysis with direct oblimin rotation resulted in the extraction of 25 factors, however the distribution of the items did not make sense theoretically. Thus, according to the structure proposed by Gottman and DeClaire (1997), the scale was forced to the extraction of 4 factors that explained 27.37% of the total variance, but these factors were not theoretically interpretable. According to Lee's (1999) hypothesis, that states that parenting styles could represent two underlying dimensions, a 2 factor solution was forced. However, this was not feasible, since it only explained 18.86% of the total variance. Factorial solutions were also investigated according to the criteria used by Paterson et al. (2012), but the internal consistency of the extracted factors was lower (between .66 and .82) than those of the solution that is presented. In the solution forced to the extraction of 4 factors, a large inflection from factor 3 to factor 4 was verified in the scree plot.



Graphic 1: Scree plot

A forced solution of 3 factors was explored which, despite explaining only 23.90% of the total variance, presented a logical pattern in the distribution of items.

The loadings of 25 items were below .32, so they were removed (8 items that originally belonged to the dismissing parenting style, 7 items that belonged to the disapproving, 6 items that belonged to laissez-faire, 4 items that belonged to the emotion coaching). After completing this procedure, 8 items loading in factors that did not make sense theoretically were removed. After removing these items, the final solution explains 31.43% of the total variance and has loadings between .35 and .77. Three factors were found: 1 - disapproving style (explaining 13.75% of the total variance and representing the dismissing and disapproving parenting styles of the original scale), factor 2 - explorer style (explains 11.41% of the total variance) and factor 3 - accepting style (explains 6.27% total variance). The items comprising factor 2 and 3 originate themselves from the emotion coaching parenting style, so none of the factors present items related to the laissez-faire parenting style.

Table 1. Loadings ($N = 355$)

Items	F1	F2	F3
F1. Disapproving style			
48. Kids get angry to get their own way.	.66		
50. If you let kids get angry, they will think they can get their way all the time.	.63		
47. A child's expressing anger amounts to a temper tantrum.	.62		
3. Children acting sad are usually just trying to get adults to feel sorry for them.	.55		
68. When my child is angry I think, "Why can't she accept things as they are?"	.55		
11. Children often act sad to get their way.	.53		
45. I don't think it is right for a child to show anger.	.52		
49. When my child gets angry, I worry about his destructive tendencies.	.50		
82. Angry children are being disrespectful.	.49		
22. When my child acts sad, it's to get attention.	.47		
19. I think when kids are sad they have overemphasized the negative in life.	.46		
27. Children really have very little to be angry about.	.46		
67. When my child is angry I think, "If only he could just learn to roll with the punches.	.46		
60. Anger accomplishes nothing.	.45		

40. When my child gets sad, I warn her about not developing a bad character.	.44
1. Children really have very little to be sad about.	.43
13. Sadness is something one has to get over, to ride out, not to dwell on.	.43
32. Childhood is a happy-go-lucky time, not a time for feeling sad or angry.	.43
24. A lot of child's anger comes from the child's lack of understanding and immaturity.	.41
46. Angry people are out of control.	.41
55. When my child gets angry, I think it's time for a spanking.	.41
9. If you ignore a child's sadness it tends to go away and take care of itself.	.40
41. When my child gets sad, I warn her about not developing a bad character.	.39
59. When I'm angry, I feel like I'm going to explode.	.39
66. When my child gets angry with me I think, "I don't want to hear this."	.39
58. When my child is angry, I usually don't take it all that seriously.	.38
53. Anger tends to cloud my judgment and I do things I regret.	.37
14. I don't mind dealing with a child's sadness, as long as it doesn't last long.	.36
56. When my child gets angry, my goal is to get him to stop.	.35
F2. Explorer style	
34. When my child is sad, I try to help him figure out why the feeling is there.	.77
31. The important thing is to find out why a child is feeling sad.	.72
28. When my child is sad, I try to help the child explore what is making him sad.	.71
29. When my child is sad, I show my child that I understand.	.68
43. When my child is angry, I try to be understanding of his mood.	.68
65. It's important to help the child find out what cause the child's anger.	.67
39. The important thing is to find out why the child is feeling angry.	.66
71. When my child is angry I want to know what she is thinking.	.65
64. When my child is mad, I just find out what is making her mad.	.61
33. When my child is sad, we sit down to talk over the sadness.	.60
23. Anger is an emotion worth exploring.	.37
F3. Accepting style	
37. I want my child to experience anger.	.68
69. I want my child to get angry, to stand up for himself.	.59
26. When my child is sad, it's a chance to get close.	.57
38. I think it's good for kids to feel angry sometimes.	.57
35. When my child is angry, it's an opportunity for getting close.	.55
30. I want my child to experience sadness.	.53
62. A child's anger is important.	.43
54. When my child is angry, it's time to solve a problem.	.38

The analysis of the relationship between the factors revealed that the disapproving style is negatively related to the explorer and accepting styles, and that these two factors are positively related to each other (see Table 2).

Table 2. Pearson's *r* values among PSST factors

	Disapproving style	Explorer style
Disapproving style	1	
Explorer style	-.02	1
Accepting style	-.05	.13*

Note. *p*= .012

Items were studied through the averages and standard deviations of the item, the item-total correlations and the value of Cronbach's α when the item is removed. The item-total correlations were above .20, ranging between .26 and .70 (see Table 3).

The internal consistency of the scale, assessed by Cronbach's alpha, revealed good alpha values in factor 1 (.87) and factor 2 (.85), and a reasonable value for factor 3 (.71) (see Table 3).

Table 3. Means (*M*) and Standard Deviations (*SD*), Item-total Correlations (*r*), Cronbach's alpha when the item is removed (α), and Cronbach's alpha of the factors

Items	<i>M</i>	<i>DP</i>	<i>r</i>	α
F1. Disapproving style ($\alpha = .87$)				
48. Kids get angry to get their own way.	.45	.50	.58	.86
50. If you let kids get angry, they will think they can get their way all the time.	.32	.47	.55	.86
47. A child's expressing anger amounts to a temper tantrum.	.33	.47	.54	.86
3. Children acting sad are usually just trying to get adults to feel sorry for them.	.41	.49	.49	.86
68. When my child is angry I think, "Why can't she accept things as they are?"	.43	.50	.48	.86
11. Children often act sad to get their way.	.42	.50	.47	.86
45. I don't think it is right for a child to show anger.	.31	.46	.45	.86
49. When my child gets angry, I worry about his destructive tendencies.	.33	.47	.43	.86
82. Angry children are being disrespectful.	.52	.50	.42	.86
22. When my child acts sad, it's to get attention.	.21	.40	.42	.86
19. I think when kids are sad they have overemphasized the negative in life.	.45	.50	.40	.86
27. Children really have very little to be angry about.	.39	.49	.42	.86
67. When my child is angry I think, "If only he could just learn to roll with the punches.	.46	.50	.39	.86
60. Anger accomplishes nothing.	.58	.49	.39	.86
40. When she gets sad, I warn her about not developing a bad character.	.55	.50	.37	.87
1. Children really have very little to be sad about.	.49	.50	.37	.87
13. Sadness is something one has to get over, to ride out, not to dwell on.	.21	.41	.37	.87
32. Childhood is a happy-go-lucky time, not a time for feeling sad or angry.	.74	.44	.38	.87
24. A lot of child's anger comes from the child's lack of understanding and immaturity.	.43	.50	.35	.87
46. Angry people are out of control.	.49	.50	.36	.87
55. When my child gets angry, I think it's time for a spanking.	.22	.42	.36	.87
9. If you ignore a child's sadness it tends to go away and take care of itself.	.18	.39	.36	.87
41. When she gets sad, I warn her about not developing a bad character.	.62	.49	.34	.87
59. When I'm angry, I feel like I'm going to explode.	.46	.50	.34	.87
66. When my child gets angry with me I think, "I don't want to hear this."	.21	.41	.34	.87
58. When my child is angry, I usually don't take it all that seriously.	.35	.48	.34	.87
53. Anger tends to cloud my judgment and I do things I regret.	.59	.49	.32	.87
14. I don't mind dealing with a child's sadness, as long as it doesn't last long.	.37	.49	.31	.87
56. When my child gets angry, my goal is to get him to stop.	.70	.46	.31	.87
F2. Explorer style ($\alpha = .85$)				
34. When my child is sad, I try to help him figure out why the feeling is there.	.89	.32	.71	.82
31. The important thing is to find out why a child is feeling sad.	.95	.23	.62	.83
28. When my child is sad, I try to help the child explore what is making him sad.	.95	.23	.62	.83
29. When my child is sad, I show my child that I understand.	.93	.26	.60	.83
43. When my child is angry, I try to be understanding of his mood.	.92	.27	.59	.83
65. It's important to help the child find out what cause the child's anger.	.96	.19	.56	.84
39. The important thing is to find out why the child is feeling angry.	.91	.29	.55	.83
71. When my child is angry I want to know what she is thinking.	.90	.31	.58	.83
64. When my child is mad, I just find out what is making her mad.	.91	.28	.51	.84
33. When my child is sad, we sit down to talk over the sadness.	.86	.35	.51	.84
23. Anger is an emotion worth exploring.	.75	.43	.31	.87
F3. Accepting style ($\alpha = .71$)				
37. I want my child to experience anger.	.34	.48	.55	.64
69. I want my child to get angry, to stand up for himself.	.42	.49	.38	.68
26. When my child is sad, it's a chance to get close.	.57	.50	.46	.66
38. I think it's good for kids to feel angry sometimes.	.62	.49	.43	.67
35. When my child is angry, it's an opportunity for getting close.	.46	.50	.41	.68
30. I want my child to experience sadness.	.58	.49	.43	.67
62. A child's anger is important.	.53	.50	.26	.71
54. When my child is angry, it's time to solve a problem.	.48	.50	.27	.71

Gender differences in parenting styles adopted by parents of both genders were studied using Student t-tests. It was found that there were no significant differences in disapproving and accepting styles. As for the explorer style, significant differences were found, with mothers presenting higher values than fathers (see Table 4).

Table 4. Gender differences between mothers and fathers in the three factors of PSST

	Mothers (n = 231)		Fathers (n = 124)		t	p	d
	M	DP	M	DP			
Disapproving style	.43	.22	.41	.23	.59	.58	.00
Explorer style	.93	.15	.85	.23	3.43	.001	.03
Accepting style	.49	.28	.53	.29	-1.20	.23	.00

4. DISCUSSION

The exploratory factor analysis revealed a different structure from the original scale, so the Portuguese version of PSST is composed by three factors.

The first factor, disapproving style, represents a parenting style that does not accept and rejects negative emotions of the children. The second factor, explorer style, is characterized by the attempt to discover what triggered the negative emotional experience. Thus, negative emotional experience is not criticized, but parents do not seem to adopt behaviors that teach strategies of emotional regulation in order to facilitate the understanding of the negative emotional experience, exploring only its causes. The third factor, accepting style, regards negative emotions as natural and positive for development, as well as an opportunity for establishing closeness with children. However, it is not clear how parents take this opportunity.

Regarding the psychometric characteristics of the Portuguese version of the PSST, the three factors explained 31.43% of the total variance. The disapproving style accounted for 13.75% of the total variance and consisted of 29 items, the explorer style with 11 items explained 11.41% of the total variance, and the accepting style with 8 items and accounted for 6.27% of the total variance. The items had good item-total correlations, above .26, and were theoretically congruent in all the factors. Two factors have good internal consistency values (disapproving style: $\alpha = .87$, explorer style: $\alpha = .85$), but the accepting style did not present such high values ($\alpha = .71$).

With respect to the association between factors, a negative association was found between the disapproving style and the explorer and accepting ones, suggesting that parents who describe themselves as disapproving do not review the characteristics of explorer or accepting styles in them. On the other hand, these last two factors are positively and significantly associated, suggesting that when scores are high in one, high scores are obtained in the other. This association fits theoretically, since both factors reveal acceptance of the negative emotional experience and seem to be parenting styles that seek to help children cope with their negative emotions.

As in the case of previous studies (Lee, 1999; Paterson et al., 2012), the dismissing and disapproving styles of the original scale have become one. Thus, the items of these factors seem to represent only rejection of negative emotional experience, rather than two distinct parenting styles (Paterson et al., 2012). Furthermore, Gottman and Declaire (1997) assume that these two parenting styles have the same consequences in the children, which was verified in the study by Hakim-Larson et al. (2006). The parental laissez-faire style did not remain in this version of the PSST and none of the items that belonged to it were retained. In fact, we were able to verify that in the several studies on psychometric properties of the scale (Hakim-Larson et al., 2006; Lee, 1999), this factor had the lowest values of internal consistency. Thus, the items that comprise the explorer and accepting styles, in the Portuguese version of PSST, come only from the emotion-coaching style of the original scale. Nevertheless, it should be noted that their content does not seem to reflect clearly the true characteristics of emotion-coaching parents, as conceptualized by Gottman and Declaire (1997). The items do not present the characteristics of an emotion-coaching parent that besides accepting, also empathizes and validates emotions, and teaches to label and to regulate them. Additionally, it was verified that no version of the PSST has items referring to other emotions, besides sadness and anger, that also appear in the emotional repertoire of children and to which the parents also respond, like anxiety and frustration.

The PSST, built on the theoretical model of meta-emotion philosophies, seems to be a promising instrument to use in the contexts of evaluation, prevention and intervention with parents of adolescents' children. Besides, adolescence is a developmental stage for which there do not seem to be many investigations that study the role of parenting styles in the regulation of emotions in adolescents. Thus, the present investigation is an initial step in the study and adaptation of the PSST in a sample of Portuguese population, which adds data to the existing one and proposes future lines of research.

CONCLUSIONS

This study investigated the dimensionality of PSST - Portuguese Version, an instrument for evaluating parenting styles related to emotions. In the sample of Portuguese parents the scale revealed three factors (disapproving, explorer and accepting parenting

styles), for which 48 items are distributed. In general, the scale presented good values of internal consistency (disapproving style: $\alpha = .87$, explorer style: $\alpha = .85$, accepting style: $\alpha = .71$). A potential limitation of our study arises from the existence of a much higher number of mothers comparing with the frequency of fathers. In future studies it would be important to have more balanced samples. On the other hand, the sample size of the present study meets Tabachnick and Fidell's (2007) criterion for doing a psychometric study in comparison with other investigations whose samples did not meet these criteria (Hakim-Larson et al., 2006; Lee, 1999; Paterson et al., 2012). The convergent and divergent validity of this version of the PSST was not analyzed and should also be studied in future investigations. Likewise, it would be important to study the temporal stability and perform a confirmatory analysis of the scale's structure obtained. Given the absence of a factor that expresses the emotion-coaching parenting style, as proposed by Gottman and Declaire (1997), it could be interesting to develop items that represent this parenting style clearly and also include items about other emotions, in order to analyze the parenting style of emotion socialization that parents use with them. The inclusion of these items would allow a more accurate analysis of how parents may deal differently with various emotions. It would also be important to study other versions of the scale, namely ERPSST-L, in order to find the response format (Likert type or dichotomous) that best suits the Portuguese population.

CONFLICT OF INTERESTS

The authors have no conflicts of interest.

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