

Psychometric Properties of a Brief Version of the Escala de Satisfação com o Suporte Social for Children and Adolescents

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The main objective of this study was to develop a brief version of the Escala de Satisfação com o Suporte Social for children and adolescents (Ribeiro, 1999). A representative sample of 3195 children and adolescents was obtained from 5th and 7th graders throughout all five Portuguese regions. The results showed a good internal consistency for the social support satisfaction factor, $\alpha = 0.84$; acceptable for the necessity for activities connected to social support factor, $\alpha = 0.69$. By using ANOVA, gender, age and socioeconomic status related differences were identified. A confirmatory factorial analysis was done and an adjusted model was found by taking off item 5. The concurrent validity was inspected with measures related to social support, such as optimism, self-worth and perceptions of health related quality of life. With this analysis, we verified that women and younger participants (< 12 years) showed a higher social support satisfaction. Medium-high socioeconomic status participants showed a higher negative social support satisfaction. These results suggest the validity of the scale in assessing perceptions of social support.

Keywords: assessment, social support, children, adolescents, subjective well-being

El objetivo principal de este estudio fue desarrollar una versión breve de la Escala de Satisfacción con el apoyo social (ESSS) de Ribeiro (1999) para niños, niñas y adolescentes. Una muestra representativa de 3195 niños y adolescentes se obtuvo de alumnos de 5^º y 7^º grados de las cinco regiones portuguesas. Los resultados mostraron una buena consistencia interna para el factor de satisfacción con el apoyo social, $\alpha = 0,84$; y aceptable para el factor de necesidad de actividades conectadas al apoyo social, $\alpha = 0,69$. Se identificaron las diferencias relativas al género, edad y status socioeconómico a través de ANOVA. Se llevó a cabo un análisis factorial confirmatorio y se llegó a un modelo ajustado retirando el ítem 5. Se comprobó la validez concurrente con variables relacionadas con el apoyo social, incluido el optimismo, la autoestima y la percepción subjetiva de la calidad de vida relacionada con la salud. Los análisis mostraron que son las chicas y los sujetos menores de 12 años los que informan de mayor satisfacción con el apoyo social percibido. Los sujetos de status socioeconómico medio-alto mostraron una satisfacción más alta con el apoyo social negativo. Los resultados parecen confirmar la validez de la escala para la evaluación del apoyo social percibido.

Palabras clave: evaluación, apoyo social, infancia, adolescencia, bienestar subjetivo

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Psychosocial development and wellbeing should be considered from an ecological perspective that focuses on multiple levels of analysis of the child or adolescent, the parents and family, friends, the school, and the community (Matos et al., 2003; Matos, Gonçalves & Gaspar, 2005; Nelson, Laurendeau & Chamberland, 2001). Studies in the field of subjective wellbeing in children and adolescents are recent, and should be focused on the relationship between demographic variables (e.g. age, gender, and socioeconomic status), intrapersonal characteristics (e.g. self-concept, extroversion, locus of internal control), and social characteristics (e.g. family, school, friends, and community) (Gaspar, Matos, Ribeiro & Leal, 2005, 2006a, 2006b, 2007, submitted; Matos, et al., 2005; McCullough, Huebner & Laughlin, 2000). There has, consequently, been a growing interest in promoting good health in children and adolescents. Focused directions positively identify various areas of positive results, including at the level of the perception of subjective wellbeing and social support (Gaspar, et al., 2005; 2006a; 2006b; 2007, submitted; Helgeson, 2003; Kana'iaupuni, Donato, Thompson-Colón & Stainback, 2005). Good health and wellbeing are both affected by social support (Coventry, Gillespie, Heath & Martin, 2004).

Satisfaction with social support (social factors that promote quality of life related to health)

Social support is understood to mean the social environment or persons that are part of the individual's social network. This term includes structural and functional support. The structural aspect deals with the existence of social relations and the functional aspect describes the existence of interpersonal relationships and interrelationships between members of the social network (Helgeson, 2003). Social support is still characterized as a group of positive contributions that appear in two dimensions: at the level of the functions of the social network (emotional, informative, recreational and instrumental support) through those whose interactions and interpersonal relationships can promote the wellbeing and health of the individuals; and, at the level of the members of the social network, specifically, the parents and family, friends/colleagues, teachers. One must still take into consideration that the relationship is important, as well as the degree of satisfaction with the member or function performed (Boosman, Meulen, Geert & Jackson, 2002).

Social support has been amply referred to as the mechanism for prevention of psychological and physical disorders. In this manner, interpersonal relationships appear to have an effect on the individual when confronted with stressful situations. Dunbar, Ford, & Hunt, 1998; Natvig, Albrektsen & Qvarstrom, 2003). The perception of social support also arises in the literature as an area of social thought particularly connected to affective, emotional states and self esteem. Here, specifically, the literature indicates that individuals with negative emotional states tend to make

negative cognitive evaluations of their social support (Colarossi & Eccoles, 2003; Henriques & Lima, 2003).

With this evidence, it becomes important to investigate the objective aspects of social support, such as, marital status, number of friends, frequency of contact, intensity of contact, existence or absence of intimate friends, social networks (youth groups, scouting, church groups, athletic centers) and subjective aspects, such as the individual's perception of the adequacy and satisfactoriness of the social support available to them (Ribeiro, 1999). Subjective social support, defined as a personal experience (perceived support) is not the same as an objective group of interactions and exchanges (received support), and reflects the generalized evaluation that the individual does of the various areas of their life in relation to which they feel that they are wanted, loved, respected, and involved, and up to which level they acknowledge the availability of others near them and the possibility of turning to these persons and receiving a response if they need it (Ribeiro, 1999; Sarason, Pierce, & Sarason, 1994).

Satisfaction with social support is very associated with health and well being, physical, psychological and social, and satisfaction with life and the existence of positivity in relation to self and others. It is thus that the perception of social support, or expectation that the support will exist if one needs it, has been considered as an element that facilitates personal and social adaptation for individuals to challenges and difficulties with which they are confronted throughout their life (Costa & Sarason, Pierce & Sarason, 1994), it is a mediating factor against adverse situations or those that are a disturbance to the physical and emotional wellbeing. Social support may serve a preventive and curative function in relation to negative life events and illnesses, and a stimulating and gratifying function, promoting happiness and positive experiences, being, in this way, positively associated with mental health (Achat, Kawachi, Levine, Berkey, Coakley & Colditz, 1998). In this manner, social support may have two effects: a positive effect, optimizing individual capacities in moments of elevated stress, and a general effect that strengthens resistance against day to day adversities, and in overwhelming situations or stress, facilitating coping. In this sense, one would expect that, the greater the satisfaction with social support, the better the subjective wellbeing, with particular relevance of the family environment (e.g. connection, psychological separation, and social support), of the social environment (e.g. relationship and acceptance of peers, social integration and involvement in social groups and activities), and the academic environment (e.g., academic performance, expectations, adaption, and satisfaction). When changes occur in life circumstances, the social networks and social support needs also change in quantity and type. Since past experiences influence perceptions of current support, as well as expectations of future support and the individuals behavior in relation with others (Colarossi, 2001).

We conclude, in this manner, that social support is a multidimensional construct and its various components have varying influence on diverse individuals and/or groups, depending on the gender and age level. Research suggests that overall perceived social support is more elevated in girls, especially in reference to their peers. However, males present a greater perceived social support on the part of the family, especially in reference to their fathers (Colarossi, 2001). Still, it is known that as age increases, perceived social support tends to decrease (Colarossi, 2001; Colarossi & Eccles, 2003; Coventry, Gillespie, Heath & Martin, 2004; Gecková, Dijk, Stewart, Groothoff & Post, 2003). Above all, it is known that in adolescents, the family appears as the principal source of support (Ribeiro, 1999).

Social Support in Children and Adolescents

The social network and perceived social support play a fundamental role in the development of children and adolescents. The structure and functions of their social support are related to specific aspects of their wellbeing, especially self concept, adaptation, social competences, and even appears as a protective factor against stressful life events (Boosman, et al., 2002). The nature of early emotional and social development of the child constitutes the basis or foundation for the child's later social development throughout life (Schaffer, 1996). As such, it is important to understand the impact of early emotional and social relationships in the cognitive and affective structures that the child uses to construct his representation of the world, and others, and to identify the various predictive factors of later academic performance, social competence, and psychopathology (Kennedy & Kennedy, 2004; Walker & Taylor, 1991).

Children and adolescents develop within the center of the family context, and are influenced by the characteristics of significant people within this context, especially by the characteristics of their parents (Kowal, Krull, Kramer, & Crick, 2002; Tuijl, Branje, Dubas, Vermulst & Aken, 2005). Family functions are fundamental to later behavioral and social adaptation. Family characteristics, family education, and family functioning are correlated with the socio-emotional wellbeing of the child, especially, sensitivity and response to the child's needs, investment, perception of parental competence on the part of the parents, instead of aggression, hostility, punitive and manipulative behaviors (Kowal, et al., 2002).

Parental sensitivity foments greater quality in interaction between the parents and children, promoting, in this manner, the child's cognitive development. This behavioral pattern promotes better physical and psychological health, social competence, academic performance, internalization of rules and parental values, as well as better self esteem, greater degree of sociability, better mood, more enthusiasm, confidence, motivation to learn, and more interest in the

environment that surrounds them. Rejection from the parents can cause problems in psychosocial adjustment, such as, negative self concept and self esteem, emotional instability, anxiety, social and emotional rejection, aggression, behavioral problems, externalization, and delinquency, consumption and abuse of alcohol and drugs, scholastic and cognitive difficulties, and mental disturbances, such as depression (Caldera & Hart, 2004; Harris, 2000; KiviJarvi, Voeten, Niemela, Raiha, Lertola & Piha, 2001; Palmer & Hollin, 2001; Pelchat, Bisson, Bois & Saucier, 2003; Rohner & Veneziano, 2001).

Friendships also perform a crucial role in the psychosocial development of the child. According to Hartput (1996, 1999) the experience of «vertical» relationships (those which are established with persons with greater knowledge and social power, such as parents) is necessary, as well as «horizontal» relationships with persons with the same level of knowledge and social power, so that children develop social competence. Relationships with peers is particularly significant during infancy and adolescence, contributing to the child's psychosocial development, especially with academic adaptation, psychological health (loneliness/isolation), and behavioral problems, since a clear relationship is established between acceptance from peers and psychosocial adaptation (Bagwell, Schmidt, Newcomb & Bukowski, 2001; Erdley, Nangle, Newman & Carpenter, 2001). Relationships of friendship during infancy are going to affect social and emotional adjustment in the short, mid, and long term. Children need acceptance from their peers, which is fulfilled by participation in peer groups, turning to a need for interpersonal intimacy. On the other hand, rejection by peers is a stressful life experience and lack of support (Bagwell, et al., 2001).

Acceptance and belonging to a group of peers play an important role in the manner in which a child behaves and in his wellbeing. Compared with children that expect acceptance from significant others, children that are rejected have a more hostile and aggressive manner of relating. Children that expect to be rejected experience greater personal stress and greater risk, dissatisfaction and tension in interpersonal relationships, remaining more susceptible to loneliness, isolation, social anxiety, depression, and, consequently, poorer wellbeing (Ayduk, Mendoza-Denton, Mischel, Downey, Peake & Rodriguez, 2000).

According to the perspective of social support, relationships with peers provide direct or indirect benefits that have an impact on adjustment. Multiple risk factors, including aspects related to rejection from peers, are predictors of externalization of problems (Bagwell, et al., 2001). In general, males exhibit a more negative perception of social support. Males tend to declare that they only have this type of conversation with females (Colarossi & Eccoles, 2003; Gaspar, 2005; Gaspar, 2005; Gaspar, Matos, Gonçalves & Ramos, 2005; Matos, et al., 2005).

Evaluation of Satisfaction with Social Support

Satisfaction with social support is a complex variable. There are various instruments which evaluate one or another dimension, but none assess satisfaction with social support to its full amplitude. In many cases, the psychometric characteristics are weak, and the various methods evaluate different conceptions of the matter (Ribeiro, 1999).

Ribeiro's Scale of Satisfaction with Social Support (1999, Escala de Satisfação com o Suporte Social, or ESSS in Portuguese) measures satisfaction with social support, taking into account that this is a fundamental dimension at the level of cognitive and emotional processes associated with wellbeing and quality of life. The scale is applied, essentially, in youth and adult populations in situations of chronic and psychological illness (Coelho & Ribeiro, 2000; Patrão, Maroco & Leal, 2006; Ribeiro, 1999). In the creation of this scale, a group of dimensions were used that express health, wellbeing, and other directly related dimensions. The original ESSS is comprised of 15 affirmative phrases that are presented to be filled in. The subject must indicate the degree to which they agree with the affirmation (if it applies to them) on a Likert scale with five positions. These 15 items are distributed by four dimensions or factors, empirically generated to measure the following aspects of Satisfaction with Social Support: «Satisfaction with Friendships» measures satisfaction with friendships/friends; "Intimacy" measures perception of the existence of intimate social support; "Satisfaction with the family" measures satisfaction with the existing family social support; and, finally, "Social Activities" measures satisfaction with social activities in which the subject engages (Ribeiro, 1999).

Methodology

It is necessary to keep in mind a number of methodological considerations in the development and structure of instruments for children and adolescents, particularly, their validity, additional sources, and cognitive and emotional development. In this sense, various aspects must be considered, namely, developmental competence in verbal comprehension, comprehension and time management, developmental differences, and identification of domains and items relevant to children (Harding, 2001; Wallander & Schmitt, 2001). The purpose of this study is to adapt and validate a reduced version for children and adolescents, nine years or older, of Ribeiro's Scale of Satisfaction with Social Support (ESSS, 1999).

Methods

Characterization of the sample

The sample was random, in which were sorted schools by region, and groups by school. The sample is representative

of children and adolescents from 5 to 7 years of education in regular public schools in the five educational regions in continental Portugal.

This study involves 95 schools, including 162 classes from 5th year to 7th (Table 1). The distribution was representative for each region (North, Lisbon and Vale do Tejo, Central, Alentejo, and Algarve), with a total of 3185 children and youths, 50.8% were female, with ages between 10 and 16 years, average age 11.81 years (SD=1.46). For reference, while the average age of the 5th year students was 10.70 years (SD=0.954), that of the 7th years students was 12.86 years (SD=1.024).

The majority were of Portuguese nationality, while only 3.3% were from other countries where Portuguese is spoken. The socio-economic status and nationality are presented and characterized as variables in this study. The majority of the subjects state that they were of a low socio-economic status.

Instruments

The original version of the Ribeiro ESSS (1999) for children and adolescents was applied to all participants. This version was applied first, individually, with 5 children with ages between 9 and 12 years, to gauge comprehension of the questions and vocabulary used and the average time expended. From there, small alterations and reductions resulted. For

Table 1
Demographic characteristics of the sample

Characteristic	Description	N	%
Gender	Boys	1573	49.2
	Girls	1622	50.8
	Total	3195	
Age group	10 and 11 years	1314	41.1
	12 years or more	1881	58.9
Educational level	5th grade	1560	48.8
	7th grade	1635	51.2
Region	North	1550	48.5
	Lisbon	832	26.0
	Center	488	15.3
	Alentejo	205	6.4
	Algarve	120	3.8
	Total		100.0
Nationality	Portuguese	2882	96.7
	CPLP (African+Brazilian)	98	3.3
ESE	Low	1235	62.2
	Mid/High	752	37.8

ESE = Socio-economic status (Calculated by analysis of the parents' profession, through the Graffar scale).

CPLP = Community of Portuguese Speaking Countries (Comunidade de Países de Língua Portuguesa)

adaptation, some words in the original scale were altered, and three items were removed due to being incomprehensible to the children. This resultant version was applied in a pilot test with a 4th year group and two 5th year groups (2nd cycle).

Their perception of the instrument and its application with these age groups was assessed together with the teachers. The final version was concluded, and it was decided that the instruments would not be applied to children in primary school, since they showed many difficulties in comprehension and took a long time to fill out the instrument. As a result, the instrument appears appropriate to us for children over 9 years of age.

Together with the ESSS and according to the methodology described above, the following instruments were also applied: KIDSCREEN-52 (version for children and adolescents), translated and adapted by Matos, Gaspar et al., 2006 (Gaspar, et al., 2005; 2006a; 2006b; 2007, submitted; The KIDSCREEN Group Europe, 2006; the Self-concept Scale, overall self-esteem subscale (Susan Harter, 1985 adapted by Martins, Peixoto, Mata and Monteiro, 1995) and the adaptation of the Life Orientation Test (Scheier, Carver and Bridges, 1994).

The KIDSCREEN-52© is a generic instrument, which may be used for measurement, monitoring, and evaluation. It may be applied in hospitals, medical establishments, and schools, by professionals in the public health field, epidemiology, medicine, psychology, nursing, and clinical research. It is applicable to children and adolescents from 8 to 18 years of age, and to their parents, in the field of health and chronic illness. It is a self filling questionnaire. It takes 10 to 15 minutes to apply (Matos, Gaspar et al., 2006; Ravens-Sieberer, Gosch, Abel, Auquier, Bellach, Bruil, Dur, Power, Rajmil & European KIDSCREEN Group, 2001; The KIDSCREEN Group Europe, 2006). An instrument characterized by ten dimensions that describe quality of life related to health (QVRS): (1) Health and Physical Activity; (2) Feelings; (3) General Mood; (4) Self perception ; (5) Free time and Autonomy ; (6) Family and Family Context; (7) Money Matters (8) Friends and Social Context; (9) School and Learning; (10) Bullying (Ravens-Sieberer & European Kidscreen Group, 2001; Bisegger, Cloetta, Ruden, Abel, Ravens-Sieberer & European Kidscreen Group, 2005; Gaspar, Matos, Ribeiro & Leal, 2005; 2006a; 2006b; 2007; Gaspar, Matos, Ribeiro, Leal, Erhart & Ravens-Sieberer (submitted).

A Self Perception Profile for Children (SPPC) from Susan Harter (1985) was translated and adapted to Portuguese, as can be verified in the studies from Faria and Fontaine (1995), and Martins, Peixoto, Mata and Monteiro (1995). The scale (SPPC, Harter, 1985) is comprised of 36 items in six subscales: Academic ability; Social Acceptance; Athletic Ability; Physical Aspect; Behavioral Attitude and Overall Self Esteem. The first five subscales are for self perception of ability, and the last is associated with a subscale for self esteem. Each one of the subscales is comprised of six items. One additional item is included as an example, but is not included in the

final score. Each item is composed of two affirmations, interconnected with a «or». The individual reads both parts of the affirmation and chooses which is more fitting for them, then expressing the degree with which they identify with the affirmation (exactly, more or less, somewhat). In each subscale, three items are presented so that the first affirmation represents high abilities, and the other three represent low abilities. This form of response is intended to avoid social desirability, and, in this manner, the individual can not make artificial choices due to a specific and constant availability of the items. Scoring is effected for each item on a 4 point scale. A score of 1 indicates low perceived abilities, and a score 4 indicates high perceived abilities. Both correspond to identification such as «I am thus». The values 2 (unfavorable identification) and 3 indicate a choice of «I am somewhat thus.» After scoring the items, and average is calculated for each of the subscales, resulting in six measurements from which it is possible to map the individual's profile. Additionally, some of the affirmations were constructed negatively (items 1, 2, and 6), the results from which, thus, must be recorded inversely to the subjects' responses.

Also, this study only aims at an adaptation of the Global Self-Worth subscale of the Self-concept scale (adapted by Martins, Peixoto, Mata and Monteiro, 1995 from the Self Perception Profile for Children by Susan Harter, 1985) for children and adolescents from 9 to 16 years of age.

Scheier & Carver (1985), presented the LOT (Life Orientation Test), and self-completed instrument comprised of twelve items, of which four are distractions and the remaining eight evaluate dispositional optimism. Afterwards, they proposed a revised and reduced version, call the LOT-R (Life Orientation Test – Revised) (Scheier, Carver and Bridges, 1994).

This project resorted to an adapted version of the LOT-R, comprised of ten items, of which four are distractions, the remainder intended to evaluate dispositional optimism. The instrument is completed by the subject, the responses presented in an ordinal five point scale, varying between «completely agree» and «completely disagree», for which the subjects record the degree at which they agree with the presented affirmations. Three items present a positive perspective, and three are of a negative character. These three items are scored in an inverse manner to acquire the final score by adding all of the items. Since the instrument was originally used with adult populations, for this study some alterations and adjustments were made for children and adolescents.

Procedures

The instrument was applied in the environment of the Aventura Social team with the same protocol and procedure used in the international study, «Health Behavior School Aged-Children», with a random, national sample representing children with 5 and 7 years of education (Currie, Samdal, Boyce, & Smith, 2001; Matos et al., 2003, 2006). Cooperation

and authorization were requested from the Ministry of Education, the National Commission for Protection of Data, and an Ethic Committee with appropriate jurisdiction, from which positive responses were received. After authorization from the various competent entities, schools were chosen randomly from throughout the entire country, taking into consideration numerical representation from each region. All of the schools were contacted by telephone to confirm their availability to participate in the study. The questionnaires and instruction were sent to each participating school, and the questionnaires were administered by the teacher in the class room. The teachers received instruction for application of the instruments. After being applied to the previously selected classes, voluntarily and anonymously, the questionnaires were returned by mail to the research team for treatment of the data. Some questionnaires that were not entirely completed were later eliminated.

Results

Exploratory analyses of the Scale of Satisfaction with Social Support

An exploratory factorial analysis of the Principle Components was chosen for evaluation of the instrument. Thereafter, a type of orthogonal-varimax rotation was chosen, which reveals the existence of two independent constructs that are profiled by a positive and negative orientation of social support. According to Thompson (2004), this type of rotation is used when factors that are independent among themselves are expected, as is the case with this study. An excellent

variation of the factors, with a value of 0.832, was obtained after rotation with the Kaiser-Meyer-Olkin measurement and Bartlett test for globularity associated with a X-squared of 10090.018 (66df; $p < 0.0001$). Two factors with values greater than the unit were acquired with the Kaiser method, the total of which explained 49.12% of the variance in the scale.

Table 2 shows that seven items are grouped in a primary factor. This component explains 30.32% of the variance, and relates to the designation of the Dimension of satisfaction with social support (SSS). The remaining five items of which the scale is composed are associated with the dimension of need for activities related to social support (NASS), which is explained by 18.80% of the variance explained by the scale. The SSS dimension arises as a factor of positive social support, while the NASS is associated with a predominately negative aspect.

The value for internal consistency of the two dimensions, being near a reference value of 0.70 (Kline, 2000) attest to good internal consistency in these dimensions (in satisfaction and in the need for activities related to social support).

We sought to correlate the items on the scale to identify the validity of the instrument. If the correlations were high, the items could be interpreted while redundant. Thus, it is hoped that they present moderate correlations in order to be effectively sensitive to various aspects of the same construct. In Table 3, one will note that the majority of the items are positively correlated between each other, with the notably high correlations between items 3 and 4. However, these values are not high enough to permit the inference of redundancy in the items. In this sense, it is possible to observe that there is, in the majority of cases, a positive correlation among the items.

Table 2
Factorial structure of the Scale of Satisfaction with Social Support (ESSS)

Items	Factor 1	Factor 2
4. Estou satisfeito com as actividades e coisas que faço com o meu grupo de amigos.	0.800	
2. Estou satisfeito com a quantidade de amigos que tenho.	0.754	
3. Estou satisfeito com a quantidade de tempo que passo com os meus amigos.	0.748	
6. Mesmo nas situações mais embaraçosas, se precisar de apoio de emergência tenho várias pessoas a quem posso recorrer.	0.699	
8. Estou satisfeito com a forma como me relaciono com a minha família.	0.677	
9. Estou satisfeito com a quantidade de tempo que passo com a minha família.	0.652	
5. Quando preciso de desabafar com alguém encontro facilmente amigos com quem o fazer.	0.640	
11. Sinto falta de actividades sociais que me satisfaçam.		0.770
10. Não estou com amigos tantas vezes quantas eu gostaria.		0.720
1. Os amigos não me procuram tantas vezes quantas eu gostava.		0.630
7. Às vezes sinto falta de alguém verdadeiramente íntimo que me compreenda e com que possa desabafar sobre coisas íntimas.		0.615
12. Gostava de participar mais em actividades de organizações (p.ex. clubes desportivos, escuteiros, etc...)		0.592
Eigenvalues	3.638	2.256
Percentagem de variância explicada	30,316	18,804
Alpha de Cronbach	0.840	0.693

Note: The data were regrouped according to the order of presentation of the items, number according to the presentation on the scale. Saturations less than or equal to 0.300 were eliminated.

Table 3
Inter-item correlations on the Scale of Satisfaction with Social Support (ESSS)

	Media	S.D.	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11
1. Os amigos não me procuram tantas vezes quantas eu gostava.	3.04	1.31	—										
2. Estou satisfeito com a quantidade de amigos que tenho.	4.38	0.97	0.137**	—									
3. Estou satisfeito com a quantidade de tempo que passo com os meus amigos.	4.09	1.09	0.115**	0.529**	—								
4. Estou satisfeito com as actividades e coisas que faço com o meu grupo de amigos.	4.23	0.98	0.147**	0.575**	0.611**	—							
5. Quando preciso de desabafar com alguém encontro facilmente amigos com quem o fazer.	3.83	1.22	0.178**	0.431**	0.355**	0.444**	—						
6. Mesmo nas situações mais embaraçosas, se precisar de apoio de emergência tenho várias pessoas a quem posso recorrer.	4.09	1.06	0.131**	0.460**	0.375**	0.487**	0.508**	—					
7. Às vezes sinto falta de alguém verdadeiramente íntimo que me compreenda e com que possa desabafar sobre coisas íntimas.	2.54	1.38	0.284**	-0.032	-0.028	-0.039*	-0.011	-0.026	—				
8. Estou satisfeito com a forma como me relaciono com a minha família	4.42	0.94	0.034	0.395**	0.420**	0.428**	0.272**	0.374**	-0.050**	—			
9. Estou satisfeito com a quantidade de tempo que passo com a minha família.	4.27	1.03	0.046*	0.367**	0.427*	0.415**	0.262**	0.322**	-0.039*	0.575**	—		
10. Não estou com amigos tantas vezes quantas eu gostaria	2.86	1.38	0.362**	0.083**	0.220**	0.109**	0.082**	0.073**	0.286**	0.039*	0.055**	—	
11. Sinto falta de actividades sociais que me satisfaçam	2.85	1.31	0.328**	0.046**	0.082**	0.036*	0.030	0.028	0.319**	0.024	0.012	0.476**	—
12. Gostava de participar mais em actividades de organizações (p.ex. clubes desportivos, escuteiros, etc...)	2.43	1.41	0.192**	-0.090**	-0.075**	-0.112**	-0.065**	-0.086**	0.227**	-0.091**	-0.072**	0.240**	0.381**

* p<.05; ** p<.001

Thus, the following existing correlations stand out: between items 3 and 4 ($r = 0.611$), between items 2 and 4, and between 8 and 9 ($r=0.575$), and between 2 and 3 ($r = 0.529$). The remainder of items present correlations those, although significant, are not very high. There are, yet, negative relationships between some items, particularly item 12, «I would like to participate in more organizational activities (e.g. sports teams, scouts, etc.)», and item 7, «Sometimes I feel the lack of someone truly intimate, that understands me, and with whom I may confide about intimate matters», both with negative associations to the following items 2, 3, 4, 5, 6, 8 and 9.

Confirmatory factorial analysis

Confirmatory factorial analysis was immediately conducted using the statistical software, AMOS 6.0 (Arbuckle, 2005). The model to be confirmed integrates 7 items in a primary factor, and 5 affirmations in another factor. Thus, the confirmatory model reveals a chi-squared (X^2) of 1307.23 with 53 degrees of freedom (df) and a CMIN/DF of 24.67. This last factor is associated with degrees of freedom where the value «p» is the number of variables observed, and the value «t» is the number of parameters to be estimated (Bollen, 1989). However, this value tends to adjust to the model in large samples (Joreskog & Sorbom, 1993) which, incidentally, is the case in our research. It was in this context that the

incremental fit index (IFI) was analyzed, being an indicator developed by Bollen (1989), which allows enrichment of aspects related to efficacy and effects related to the size of the sample. The IFI adjustment value was 0.88. This only approximated the parameter designated by Bollen (1989), according to which a proper adjustment would be in values greater than 0.90. The value of other indicators, such as the normed fit index (NFI), was 0.88, and the value of the compared fit index (CFI) was 0.88. These values reveal an acceptable adjustment, since, according to Bentler (1990), for adjustment to be appropriate in these indexes, the values should be greater than 0.90. Finally, as the result of the root mean squared error of approximation (RMSEA) was 0.068, and, even being somewhat distant from zero, we can consider the adjustment reasonably acceptable, since it is near 0.08 (Browne & Cudeck, 1993). In accord with studies conducted with an exploratory factorial analysis, the factor 1 is associated with a positive aspect of satisfaction with social support. Likewise, a factor of 2 appears related to a negative aspect of the perception of the need for more activities related to social support.

Various models were tested through the process of estimation of the maximum similarity. In all of the models, that which appeared most appropriate to us (Figure 1) integrated 6 items (items 2, 3, 4, 6, 8, and 9) in a primary factor, and 5 affirmations represented by items 1, 7, 10, 11 and 12 in another factor.

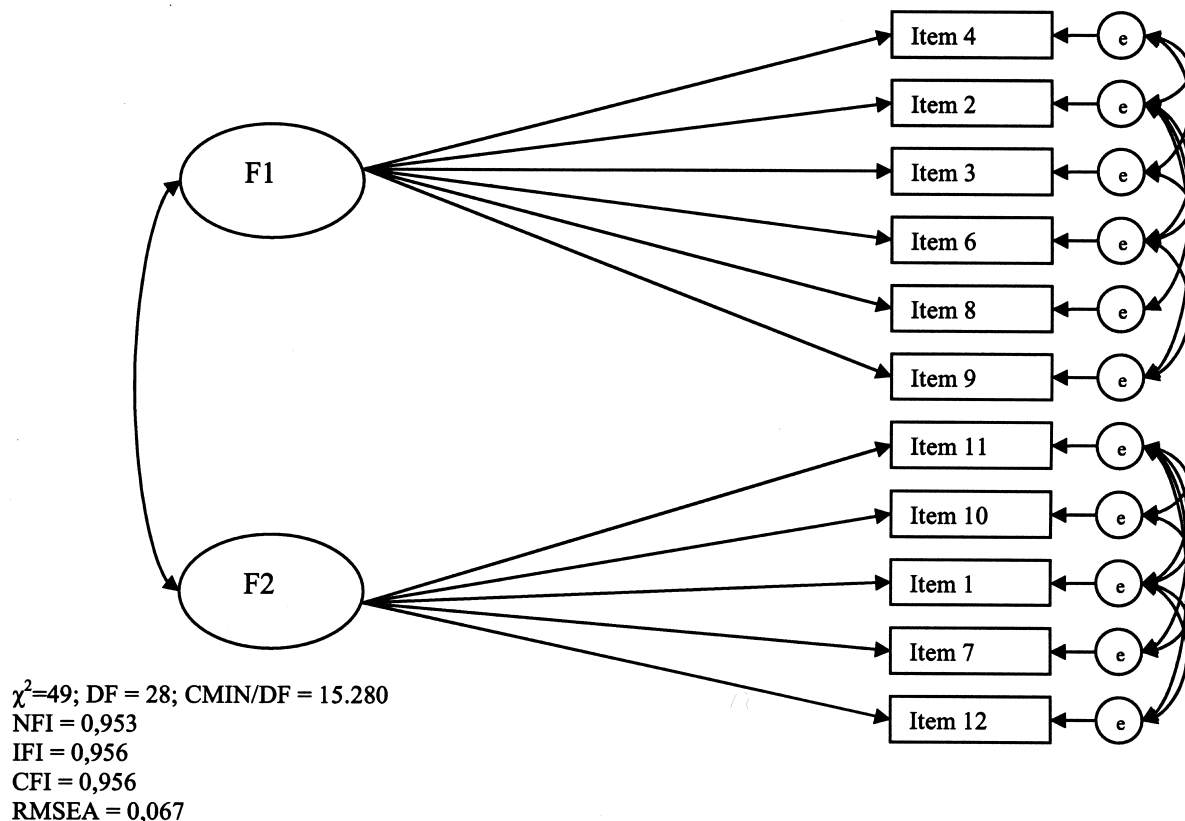


Figure 1. Confirming factorial analysis with two factors and exclusion of item 5.

The model in question justifies elimination of item 5, since the presence thereof is responsible for barely adjusted confirmatory factorial analysis models. In the case of a model which integrates the 7 items of SSS and the 5 NASS factors, as suggested in the AFE, a weak adjustment was observed ($\chi^2 = 1493.00$, $df = 53$, $RMSEA = 0.0922$). Thus, the model that is best adjusted justifies suppression of item 5, and gives a chi-squared (X^2) of 49 with 28 degrees of freedom (df) and $CMIN/DF$ of 15.28. In order to control the tendency of this last indicator to adjust itself to the model in large samples (Joreskog & Sorbom, 1993), the incremental fit index (IFI) was analyzed, which presented an adjustment value of 0.96, fitting into the parameter of «above 0.90» designated by Bollen (1989). The value of other indicators, such as the normed fit index (NFI), was 0.95, and the value of the compared fit index (CFI) was 0.96, values which reveal a good adjustment, with performance superior to the prior model. According to Bentler (1990), appropriate adjustment indexes give values greater than 0.90. Finally, as the result of the root mean squared error of approximation (RMSEA) was 0.067 (having decreased in relation to the model in item 5), a better adjustment was achieved, even being somewhat distant from zero, since the by the parameters from Browne & Cudeck (1993) values up to 0.08 may be considered reasonably acceptable. This model remains in agreement with studies conducted with an exploratory factorial analysis, with the factor of 1 appearing associated with an aspect of satisfaction with social support (SSS), and the factor of 2 related with an aspect of the need for activities connected to social support (NASS).

Differential analysis

In order to verify variations in some of the variables considered in the study, we sought to analyze the behavior of the variables of gender, age, and ESE, through ANOVAs. Thus, it was possible to note that the elements belonging to the male sample presented an average in the NASS dimension that was significantly lower [μ NASS = 13.540; $DP = 4.650$] than that of the females [μ NASS = 13.920; $DP = 4.447$; $F(1, 3037) = 5.202$, $p = 0.023$]. As far as the age variable, we found that individuals in the lower age bracket presented greater values in the SSS dimension than

individuals 12 years of age or older [μ SSS (10-11a) = 30.15; μ SSS ($\geq 12a$) = 28.83; $F(1, 2985) = 47.913$, $p < 0.0001$]. The roles were reversed in the NASS Dimension, meaning, it was the elements of the higher age group that presented greater average indexes for this factor of the ESSS [$F(1, 3037) = 5.847$, $p = 0.016$]. In the ESE factor, only significant differences were verified [$F(1, 1906) = 43.189$, $p = 0.016$, $p < 0.0001$] for the NASS dimension. And, thus, it was possible to note that the subjects with average/high ESE showed greater values ($\mu = 14.75$; $DP = 4.61$) than the elements of the low ESE sample ($\mu = 13.38$; $DP = 4.30$).

Concurrent validity

Seeking to study the relationship between other instruments and equally important constructs in the evaluation of health psychology, we applied the Pearson correlations (Table 4) between the ESSS from Ribeiro (1999) and other instruments, specifically the Harter (1985) self esteem scale, and the Life Orientation scales that measured the factors of optimism and pessimism (Scheier, Carver, & Bridges, 1994). These correlations allow assessment of some concurrent validity of the behavior of the scales, inferring, in this manner, some possible common characteristics. Relevant discussion of this matter can be found in the literature (Boosman et al., 2002; Colarossi & Eccoles, 2003; Henriques & Lima, 2003), since social support is associated with adjusted self esteem, high optimism, and low pessimism.

Table 4 shows that the dimensions are significantly associated. Correlation between the optimism scale and the SSS dimension particularly stands out. Additionally, the NASS dimensions show a weak, negative correlation with the optimism scale. Also, one may note the significant correlations between the Harter (1985) self esteem scale and the other instruments used in the study, with a strong correlation with the SSS construct ($r = 0.465$; $p < 0.001$)

Table 5 highlights the strong correlation ($r > 0.50$) between the SSS dimension and the Kidscreen instrument dimension of «Friends and Social Context». Strong correlations (around 0.5) were also found between the SSS dimension and the dimensions of «Feelings», «Free time and Autonomy», and «Family and Family Environment» from the Kidscreen instrument.

Table 4

Correlations between the scale, Orientation for Life (dimensions of optimism and pessimism), satisfaction with social support (dimension of satisfaction with social support, and need for activities connected to social support), and self esteem

Scales	1	2	3	4
1. Optimism	—			
2. Pessimism	0.038*	—		
3. Satisfaction with Social Support (SSS)	0.498**	0.059**	—	
4. Need for Activities connected to Social Support(NASS)	-0.043*	0.389**	0.086**	—
5. Self esteem	0.370**	0.294**	0.465**	0.262**

*. < .05; **P < .001

Table 5

Correlations between the two dimensions of the scale of satisfaction with social support (SSS and NASS), and the dimensions from the Kidscreen instrument, a measurement of the quality of life related to health (QVRS)

Dimensions of the Kidscreen instrument (QVRS):	SSS	NASS
Health and Physical Activity	0.340**	0.060**
Feelings	0.470**	0.140**
General mood	0.410**	0.230**
Self-perception	0.340**	0.160**
Free Time and Autonomy	0.460**	0.160**
Family and Family Context	0.480**	0.170**
Money Matters	0.330**	0.230**
Friends and Social Context	0.530**	0.190**
School and Learning	0.370**	0.090**
Bullying	0.280**	0.220**

*. < .05; **P < .001

SSS = satisfaction with social support

NASS = Necessity for Activities connected to Social Support

Discussion

The purpose of this article is to study the metrical qualities of the reduction and adaption for children and adolescents of the scale of satisfaction with social support (Ribeiro, 1999). This scale, when used together with other instruments, provides analysis of the relation of social support to health and wellbeing. It allows, in this way, evaluation of satisfaction on the part of children and adolescents with social support, and the perceived need or sense of social support, and can be used to analyze the relation of these elements with health and wellbeing. Using a representative sample in Portugal, comprised of 23,195 subjects at the 5th through 7th academic year, with ages between 10 and 16 years, we sought to find psychometric indicators for validity and reliability of said instrument. In addition to these metrical aspects, we also intended to study the differentiating capacity of the instruments in respect to the variables of gender, age, and socio-economic status.

Through analysis of the results obtained, we observe that the scale of satisfaction with social support presented good psychometric characteristics. Thus, extraction of the two factors that equally explained 49% of the variances explained and the value of internal consistency (Cronbach alpha) of the Dimensions, around 0.70, was verified. This value is clearly acceptable for this type of scale, and was reinforced by analysis of the inter-correlations between the items. Interpretation of the data showed that some of the factors assume a negative perspective (NASS), while the other refers to a positive aspect (SSS). With these results, one may expect that there are negative (or low) correlations between the items of the respective factors. As such, the correlation between the items of the same dimension should be higher than between different

dimensions. In this sense, items 7 and 12 appear to be the best formulated, since they present weak or negative correlations with items from the SSS dimension and significant associations with items from the scale to which they belong (NASS). On the other hand, it is still possible to observe that other items (for example, 1, 10, and 11) are well formulated, since they have weak correlations with items from the SSS dimensions.

On the other hand, the confirmatory factorial analysis does not justify inclusion of item 5 in the SSS dimension of the scale of social support, since this process reflects a lower adjustment in the model. Since this item («When I need to talk/vent, I easily find friends with whom to do so») seeks to measure the point to which the child/adolescent succeeds in confiding with their friends, this affirmation can be shown to be inappropriate for the population which this sample included. In reality, children and adolescents with ages between 10 and 16 years may, still, not have the habit of confiding in others regarding their problems and difficulties (Colarossi, 2001). Accordingly, we believe it would be interesting to conduct a new confirmatory analysis with an older sample to observe the performance of the item at the level of the first factor of the scale.

As far as the relationship of the factors with the study variable, males in the higher age bracket (12 years and older) showed lower values in the Dimension of Satisfaction with Social Support than females and subjects in the lower age bracket. In the dimension of need for activities connected to social support, this relationship was inverted, or, it was the older males who had the highest index averages for this factor on the scale of social support, as is mentioned in the literature (Colarossi & Eccoles, 2003; Coventry, et al., 2004; Gecková, et al., 2003; Matos et al., 2003, 2006). These results reflect that adolescents are more selective in their

choice of peers, which is quite likely justifiable due to the growing need for autonomy. Frequently, this autonomy arises in a manner conditioned by the parents who confront a new reality, according to which, the adolescents perceive a greater need for social activities than children. As relation to gender differences, the results may be explained, essentially, by the fact that girls demonstrate greater satisfaction and involve themselves in more family activities than boys (Matos et al., 2003, 2006). Perhaps this is also true for girls, by feeling more comfortable speaking of their intimacy with both boys and girls, while boys do not speak of such matters, or are more selective in relation to the persons with whom they discuss intimate matters (Colarossi & Eccoles, 2003).

In the ESE variable, significant differences were only verified for the dimension of need for activities connected to social support, the subjects of mid and high ESE giving values greater than those for the elements of the low ESE sample. These results may be explained, on one hand, by the fact that the mid/high ESE subjects are overwhelmed with structured, extracurricular activities, often arranged by the parents, and, consequently, have little time to choose and become involved in free activities, alone or with friends. On the other hand, the low ESE subjects spend a great deal of time without parental supervision, with friends, without structured, required activities, and, as such, perceive less need for activities connected to social support (Gaspar, 2005; Gaspar, Matos, Gonçalves & Ramos, 2005; Matos, et al., 2005).

The correlations between SSS and Pessimism, and between NASS and Optimism, not being particularly high, remove some redundancy in the application of this instrument, and reinforce the complimentary nature of the techniques and relationships between concepts (Bagwell, et al., 2001). On the other hand, the absence of correlation between factors on the same scale, which supports bifactoriality of the constructs, both positively and negatively, stands out. Some differences with initial studies (Ribeiro, 1999) may be due to behavior of the sample, which, being still quite young, demonstrated another understanding and representation of some of the items. The alteration of items as a means of adjusting to this juvenile population left some gaps in respect to the metric qualities of item 5. Overall, the scale behaved excellently, principally in reference to concurrent validity in which association between constructs was verified (e.g. Optimism and SSS, Pessimism and NASS, Self esteem and NASS and SSS). The strong correlation between the dimension of optimism and that of satisfaction with social support stands out, as well as the negative correlation between the dimensions of optimism and need for activities connected to social support. This data corroborates the fact that the dimension of need for activities is connected inversely to social support, while SSS reflects a clearly positive social support.

Significant correlations with the self esteem scale were verified. The strong correlation between the dimension of

satisfaction with social support, and the dimensions of the Kidscreen «Friends and Social Context» instrument stand out. Also, strong correlations were observed between the SSS dimension and the dimensions of the Kidscreen instruments «Feelings», «Free time and Autonomy», and «Family and Family Environment». These results reinforced the important role of satisfaction with social support for the emotional and social wellbeing of children and adolescents. Additionally, in respect to the prediction of behaviors, and differential analysis, we found results in accord with the literature, that explain the importance of this scale for evaluation of psychological wellbeing (Gaspar, Matos, Ribeiro & Leal, 2005, 2006a, 2006b, 2007, submitted; Helgeson, 2003; Kana'laupuni, Donato, Thompson-Colón & Stainback, 2005). Good health and wellbeing are both affected by social support (Coventry, Gillespie, Heath & Martin, 2004). The performance of this scale of Satisfaction with Social Support, as well as the correlations with other related evaluative instruments, reinforces the utility of these instruments in assessing wellbeing and quality of life for children and adolescents (Colarossi & Eccoles, 2003; Coventry, Gillespie, Heath & Martin, 2004; Henriques & Lima, 2003). This instrument, thus, appears valid and reliable for evaluation of social support in this specific population. However, we emphasize that new studies should be conducted to relate this construct with variables and scales referring to proper health, psychological wellbeing, and quality of life. It is thought that, in this manner, relevant data may be obtained in clinical contexts, where the aspects of wellbeing, quality of life, and positive health appear as fundamentals for diagnosis and therapeutic intervention. It would also be interesting to analyze possible correlations between these and other important constructs in various contexts in psychological treatment.

Conclusions

This study was proposed to adapt and validate a scale for evaluation of satisfaction with social support, an important construct in the field of health, wellbeing, and quality of life, for children and adolescents. The scale, which addresses two dimensions, Dimension of Satisfaction with Social Support (positive, 6 items), and the Dimension of Need for Activities connected to Social Support (negative, 5 items), is sensitive and valid. Finally, we suggest that further studies be conducted with other populations and with new measurements in this area. The study reflects the fundamental role of satisfaction with social support for the psychological wellbeing and quality of life in children and adolescents, and, thus, highlights the importance of promoting positive interpersonal relationships in academic, family, and community environments.

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