

Relationship between Social Support, Life Satisfaction and Subjective Well-Being in Brazilian Adolescents*

Relación entre soporte social, la satisfacción de vida y bienestar subjetivo en adolescentes brasileiros

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RESUMEN

Este estudio explora el bienestar subjetivo, la satisfacción general de vida y el apoyo social percibido de los adolescentes brasileños mediante el análisis de diferentes modelos que explican la relación entre estas tres construcciones. La muestra se compone de 1.588 adolescentes (12 a 16 años, 65,5% mujeres), que contestaron el Índice personal de Bienestar (PWI), una medida de apoyo social percibido de la familia y amigos, y también un solo elemento de satisfacción general Vida escala (OLS). Se realizaron análisis de MANOVA y ANOVA para evaluar las diferencias entre los grupos, con respecto al género, se observa que las niñas presentan medios más bajos que los chicos de la MCO. Se presentó una disminución significativa en la media de la PWI con la edad. Los niños presentan medios más bajos de apoyo social de amigos. El modelo de Ecuaciones Estructurales se utilizó para probar los marcos teóricos sobre los datos. Después de analizar los diferentes modelos, el mejor ajuste del modelo se presenta con el PWI como un factor mediador entre el apoyo social y la satisfacción con la vida. La percepción de apoyo social de la familia y amigos resulta ser una dimensión importante de bienestar entre los adolescentes brasileños. La importancia del apoyo social para el bienestar subjetivo se explica por la identificación de la forma en que contribuye a la satisfacción con la vida en general de los adolescentes.

Palabras clave

adolescencia; bienestar; satisfacción de vida; soporte social

ABSTRACT

This study explores the subjective well-being, overall life satisfaction and perceived social support of Brazilian adolescents by analysing different models that explain the relationships among these three constructs. The sample is comprised of 1,588 adolescents (aged 12–16, 65.5% female), who answered the Personal Well-Being Index (PWI), a measure of Perceived Social Support of Family and Friends, and also an Overall Life Satisfaction single-item scale (OLS). MANOVA and ANOVA were used to assess the differences between groups, with respect to gender, it is observed that girls present lower means than boys for the OLS. Considering age, there was a significant decrease in the mean of the PWI with age. Boys present lower means of friends' social support. Structural Equation Modelling was used to test theoretical frameworks on data. After analysing different models, the best fit model is presented using the PWI as a mediating factor between social support and satisfaction with life. The perception of social support from family and friends results to be a significant

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dimension of well-being among Brazilian adolescents. The importance of social support for the subjective well-being is explained by identifying how it contributes to the overall life satisfaction of adolescents.

Keywords

adolescence; well-being; life satisfaction; social support

The relationship between different well-being measures with a single item of overall life satisfaction (OLS) is very well established in the scientific literature (Cummins, 1998; Cummins et al., 2004), as it is the relationship between different social support measures with both the OLS and different well-being scales in the adult and adolescent populations (Diener, 1984; Huebner, 2004; Sarriera, Abs, Casas, & Bedin, 2012).

However, the relationship between social support and well-being indicators has very different connections depending on the instruments used, the social context where the questionnaires have been administered, cultural differences and other facts. The variations are even more outstanding when research is focused on adolescents (Fernández del Valle & Bravo, 2000).

Some authors have proposed that these three, together with other positive constructs, may form part of a supra-construct, i.e., belong to a same higher order construct (Diener, Suh, Lucas, & Smith, 1999; Stones & Kozma, 1985). However, other authors have proposed that Social Support is a mediator of the adolescents' subjective well-being (Fernández del Valle & Bravo, 2000).

Social support has been defined as a set of inputs of different types, ranging from emotional to material aspects that a person receives from the social network in which he or she is inserted (Gracia, Herrero, & Musitu, 1995). That definition includes structural and functional aspects of social support, related to the perceptions of each subject. The study by Collins, Coffey and Morris (2010) with social work students regarding stress, support and well-being, employs social support measures that assess the relationship of students with its social context. The authors did not find significant differences in gender, age or the year of study. Gayman, Turner, Cisol and Eliassen (2010) assessed the family experiences of 1,267 American adolescents and found them re-

lated to low perceived social support from friends and family, especially the negative experiences.

In this study, we assume the concept as proposed by Cobb (1976), later used by Vaux (1988) in the development of the scale of Social Support Appraisals (SSA), defined as the information that makes someone believe he's cared and loved, esteemed and valued and that he or she is a part of a network of mutual obligations. Regarding the first aspect, information of support can be transmitted through intimate situations involving mutual trust and it is often referred to as emotional support. In the second aspect, information of esteem and personal value is transmitted effectively in the presence of others and makes the individual reaffirm his or her sense of personal worth; it can be referred to as recognition.

The perception of social support in adolescence can vary with age, since changes in relationship groups, such as with parents and friends, often take place. This influence has fundamental importance in this stage of life, due to the processes of independence and autonomy, especially in regards to emotional support, loyalty, understanding and intimacy (Antunes & Fontaine, 2005; Lekes, Gingras, Philippe, Koestner, & Fang, 2010). The trust of family and the trust of friends, both included in this analysis, are important to aid the development of the adolescent's independence and autonomy.

This study aims at exploring the following questions: 1) The characteristics of subjective well-being and perceived social support in a Brazilian population of adolescents; 2) The psychometric properties of the three studied measures; 3) The relationship between these three constructs by testing different Structural Equations Models (SEM).

Method

Sample

The sample is comprised by 1,588 participants from five Brazilian cities in different regions of the state of Rio Grande do Sul: Porto Alegre, Santa Cruz do Sul, Santa Maria, Rio Grande and Passo Fundo. The characteristics of the sample in terms

of age and gender are shown in Table 1. The Students are aged 12 to 16 years old, with an average of 14.13 ($SD = 1.26$). The sample includes many more girls than boys due to the ethical requirements on the sampling procedure in Brazil, where explicit consent terms from parents are needed. Since girls usually are more proactive in bringing the consent back to school, girls' parents signed more informed consents.

Procedures

The participants were contacted through public and private schools in the sample cities. The selected schools were randomized from a list provided by Rio Grande do Sul's Department of Education, having as inclusion criteria: 1) to belong to the municipalities in the study, 2) to provide both primary and secondary education and 3) to agree with the participation by signing an institutional agreement. The final participants of the survey were volunteer students who returned a term of free and clear consent signed by them and by their parents or guardians. The questionnaires were applied collectively in a room provided by each school. Two researchers were present during the administration and clarified any questions that arose. All ethical requirements for research with human beings were followed.

Instruments

Personal Well-being Index (PWI) from Cummins, Eckersley, Pallant, Van Vugt and Misajon (2003) was employed to assess subjective well-being. The

scale has 7 agree-disagree type items ranging from 0 to 10 that are related to satisfaction. The PWI is a one-dimensional scale consists of seven domains: health, with living standards, with what one has achieved in life, with security, with the groups of people one is part of, with security about the future and with relations with others. Cummins (1998) found alphas between 0.7 and 0.8 in 16 surveys conducted with the Australian population. Also, the study by Cummins et al. (2004) showed good internal consistency. In the current study with Brazilian adolescents ($n = 1.588$), the scale showed good internal consistency with $\alpha = 0.78$. The PWI was also tested on 12 to 16-year-old adolescents by Casas, Sarriera, Abs et al. (2012), Casas, Sarriera, Alfaro et al. (2012), and Sarriera et al. (2012).

Overall Life Satisfaction (OLS) single-item scale was used (Casas, 2010 as formulated by Campbell, Converse, & Rodgers, 1976) to measure life satisfaction, consisting in the question "At present, to which extent are you satisfied with your life as a whole?" and uses a range from 0 (*completely unsatisfied*) to 10 (*completely satisfied*).

Social Support Appraisals Scale (SSA) from Vaux et al. (1986) was employed to assess social support; it measures the adolescents' perception of the social support provided by their family, friends and others in general. In its original form, there are 23 five-point Likert-type items that belong to three dimensions: family, friends and others. In this study, only items related to the family and friends' subscales are used, totalling 12 agree-disagree items with scores ranging from 0 to 10, in order to improve its sensitivity. The 12 items are described in Table 8, and there are six items for each dimension.

TABLE 1
Sample Frequencies and Percentages by Gender and Age

		Male n (%)	Female n (%)	Total n (%)
Age	12	66 (4.2)	121 (7.6)	187 (11.8)
	13	139 (8.8)	215 (13.5)	354 (22.3)
	14	117 (7.4)	262 (16.5)	379 (23.9)
	15	136 (8.6)	270 (17)	406 (25.6)
	16	89 (5.6)	173 (10.9)	262 (16.5)
Total		547 (34.5)	1.041 (65.5)	1.588 (100)

Source: own work

Vaux et al. (1986) obtained results with five samples of college students and five samples in communities that showed a high SSA's reliability and validity. The scales had good internal sample consistency; for the sample of college students, the Cronbach's alpha was 0.9 for friends and 0.8 for family. The alpha was 0.9 for friends and 0.81 for family in the community sample. The scales also showed stability after a six-week interval in a sample of college students ($r = 0.8$ and $r = 0.71$ for the subscales family and friends). In this paper with Brazilian sample ($n = 1.588$), the scale also showed good internal consistency, with a Cronbach's alpha = 0.86.

Data Analysis

In order to verify the characteristics of subjective well-being and perceived social support in the sample, data were submitted to univariate analysis to assess differences in the subgroups of age and gender. In addition, two multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA) were performed to test for mean differences. In the first, the PWI and the OLS were considered as dependent variables and age and gender as independent variables, and, in the second, the two factors of the SSA scale (family and friends) were the dependent variables, whereas the independent variables remained unchanged.

At a second step, a structural equation modeling (SEM) was estimated with the following steps: 1) Normality and absence of homoscedasticity were tested; 2) Pearson's correlations between variables

were calculated; 3) Factorial Confirmatory Analysis was conducted with the SSA and PWI scales; 4) Models were constructed and adjusted based on theoretical literature; 5) Models were tested for multigroup invariance using the age and gender subgroups (Batista-Foguet & Coenders, 2000; Byrne, 2010; Hair, Anderson, Tatham, & Black, 2005).

The interpretations of results for the SEM consider the Goodness of Fit criterion (Batista-Foguet & Coenders, 2000). Kline (1991) also points out other indicators that verify the adequacy of the model: in order of priority, the Chi-square and the Bentler-Bonnet Normed and Nonnormed Fit Index (NFI, NNFI). This study follows Batista-Foguet and Coenders (2000), who recommend the comparative fit index of Bentler (CFI) and the root mean square error of approximation (RMSEA). Model fit was evaluated according the following criteria: NFI, CFI, and TLI values above 0.95 and RMSEA values below 0.08 (see, Batista-Foguet & Coenders 2000; Byrne 2010).

Results

Univariate Analysis

For the first step, univariate analysis were performed to verify the characteristics of subjective well-being and perceived social support in the sample. Subgroups were constructed according to the adolescents' age and gender. The means and standard deviations of well-being and life satisfaction are shown in Table 2, by subgroups. The means

TABLE 2
Means and Standard Deviations for the Personal Well-being Index and OLS, by Age and Gender

Age	Mean (Standard Deviation)					
	Personal Well-Being Index (PWI)			Overall Life Satisfaction (OLS)		
	Male	Female	Total	Male	Female	Total
12	80.48 (14.09)	85.43 (10.7)	83.69 (12.19)	8.22 (2.3)	8.26 (1.75)	8.24 (1.96)
13	84.51 (09.59)	81.99 (12.27)	82.98 (11.34)	8.35 (1.64)	7.99 (1.87)	8.14 (1.79)
14	83.21 (11.19)	81.36 (12.25)	81.95 (11.94)	8.58 (1.43)	7.91 (1.94)	8.12 (1.82)
15	80.9 (10.62)	79.59 (12.36)	80.04 (11.79)	8.13 (1.70)	7.8 (1.95)	7.91 (1.87)
16	82.7 (10.18)	79.41 (12.09)	80.51 (11.56)	8.49 (1.44)	7.98 (1.95)	8.15 (1.81)
Total	82.56 (10.96)	81.17 (12.20)	81.65 (11.80)	8.35 (1.67)	7.95 (1.91)	8.09 (1.84)

Source: own work

TABLE 3
Means and Standard Deviations for the SSA, by Age and Gender

Age	SSA Mean (Standard Deviation)		
	Male	Female	Total
12	7.79 (2.06)	8.52 (1.33)	8.25 (1.67)
13	8.32 (1.28)	8.42 (1.34)	8.38 (1.31)
14	8.07 (1.36)	8.27 (1.47)	8.21 (1.44)
15	8.07 (1.25)	8.18 (1.56)	8.14 (1.46)
16	8.26 (1.39)	8.23 (1.39)	8.24 (1.39)
Total	8.13 (1.43)	8.30 (1.44)	8.24 (1.44)

Source: own work

of the PWI were calculated through the arithmetic average of its items on 100.

Adolescents' Social Support Appraisals means are shown in Table 3. They were measured through the arithmetic average of all items in the SSA subscales in this analysis. The girls' averages are higher than the boys' and they are decreasing with age until 15 and then increasing when 16. Boys' averages are more heterogeneous within the age group.

Considering the overall sample, well-being and life satisfaction had the highest average among the youngest adolescents, decreasing with age, even though a small average increase in 16 year-olds can be seen.

Tests of Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA)

Tests of multivariate analysis of variance (MANOVA) and Analysis of Variance (ANOVA) were applied by age and gender to verify mean differences in personal well-being, life satisfaction and social support (family and friends). Table 4 shows the results of multivariate analysis of variance for the

PWI and OLS. There are significant differences within the age and gender subgroups for both dependent variables and its interaction term.

Table 5 shows the results of the analysis of variance for the PWI and OLS for age, gender and its interaction term. The results of the PWI and OLS analysis of variance (ANOVA) indicated a significant overall difference in the interaction term of gender and age for the PWI, but not for the OLS. In addition, there are significant differences regarding the age group, with a decrease of the PWI mean with age, but not in the OLS. With respect to the gender group, the means are significant higher for boys than for girls for the OLS, but not for the PWI (see Table 2 for means).

For Social Support Appraisals two variables were generated: the social support from family (Family SS) and the social support from friends (Friends SS), by computing the arithmetic average of each group. Table 6 shows the results of multivariate analysis of variance for the Social Support Appraisals from family and friends. There are significant differences in gender and in the interaction term of gender and age, but not in age by itself.

TABLE 4
Multivariate Analysis of Variance (MANOVA) of the PWI and OLS

Effect ^a	Value ^b	F	df	Error df	Sig.
Age	0.988	2.146	8	2902	0.029
Gender	0.991	6.337	2	1451	0.002
Age * Gender	0.989	1.989	8	2902	0.044

^aDependent Variables: Personal Well-being Index and Life Satisfaction

^bWilks' Lambda

Source: own work

TABLE 5
Analysis of Variance (ANOVA) of the PWI and OLS

Source	Dependent Variables	Sum of Squares	df	Mean Square	F	Sig.
Age	PWI	1850.547	4	462.637	3.387	0.009
	OLS	16.74	4	4.185	1.249	0.288
Gender	PWI	197.55	1	197.55	1.446	0.229
	OLS	40.891	1	40.891	12.199	0
Age * Gender	PWI	1845.755	4	461.439	3.378	0.009
	OLS	13.959	4	3.49	1.041	0.385

Source: own work

TABLE 6
Multivariate Analysis of Variance (MANOVA) of Friends and Family Social Support

Effect ^a	Value ^b	F	df	Error df	Sig.
Gender	0.977	17.842	2	1503	0
Age	0.992	1.553	8	3006	0.134
Gender * Age	0.987	2.384	8	3006	0.015

^aDependent Variables: Friends Social Support and Family Social Support

^bWilks' Lambda

Source: own work

Table 7 below shows the results of the SSA's (family and friends) analysis of variance by age, gender and its interaction term. The results of the SSA from family and friends' ANOVA indicated an overall significant difference in the gender and age interaction term only with respect to social support from friends, and girls present higher means than boys in all ages, except at sixteen (see Figure 4). Separately, only gender had significant differences when regarding social support from friends. There are no significant differences by age, gender and the interaction term in the social support from family.

The next figures show the interaction between age and gender subgroups in the studied variables. Figure 1 shows the graph of the interaction resulting from the personal well-being means, as shown in Table 5, this interaction is significant, and it is possible to see that the PWI means decrease with age for girls but not for boys.

Figure 2 shows the interaction with respect to the Overall Life Satisfaction indicator for age and gender. The means also decrease with age for girls, but as shown in Table 5 this interaction was not significant.

TABLE 7
Analysis of Variance (ANOVA) of Friends and Family Social Support.

Source	Dependent Variables	Sum of Squares	df	Mean Square	F	Sig.
Gender	Friends SS	80.579	1	80.579	26.141	0
	Family SS	1.194	1	1.194	0.441	0.507
Age	Friends SS	19.843	4	4.961	1.609	0.169
	Family SS	15.692	4	3.923	1.449	0.215
Gender * Age	Friends SS	36.436	4	9.109	2.955	0.019
	Family SS	14.841	4	3.71	1.371	0.242

Source: own work

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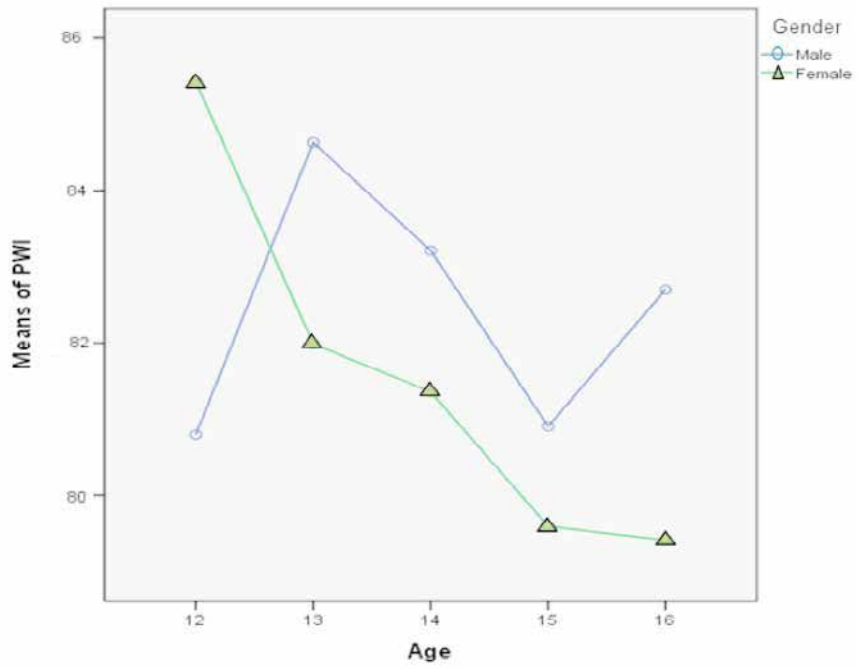


Figure 1. Interaction between Age and Gender Subgroups in the Variable PWI.
Source: own work

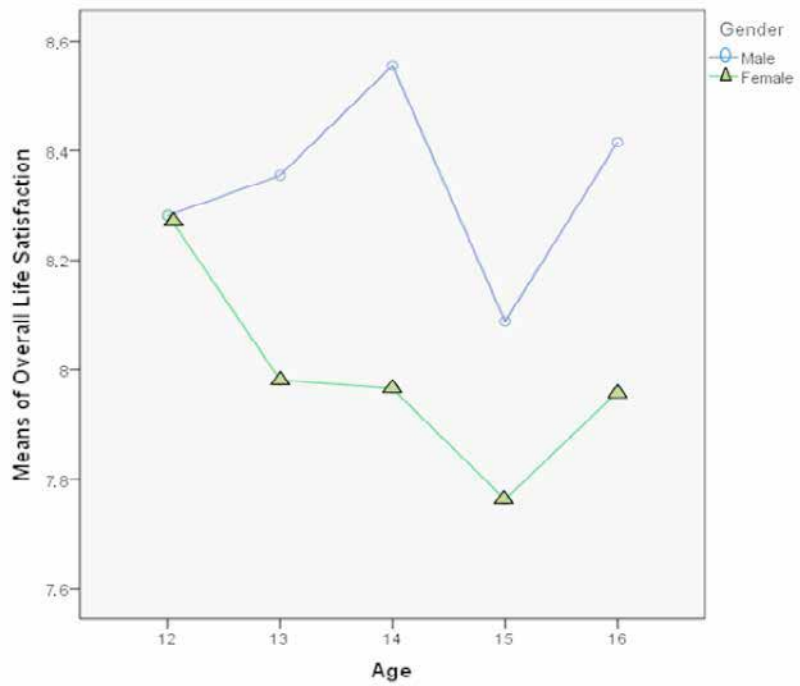


Figure 2. Interaction between Age and Gender Subgroups in the Variable Overall Life Satisfaction.
Source: own work

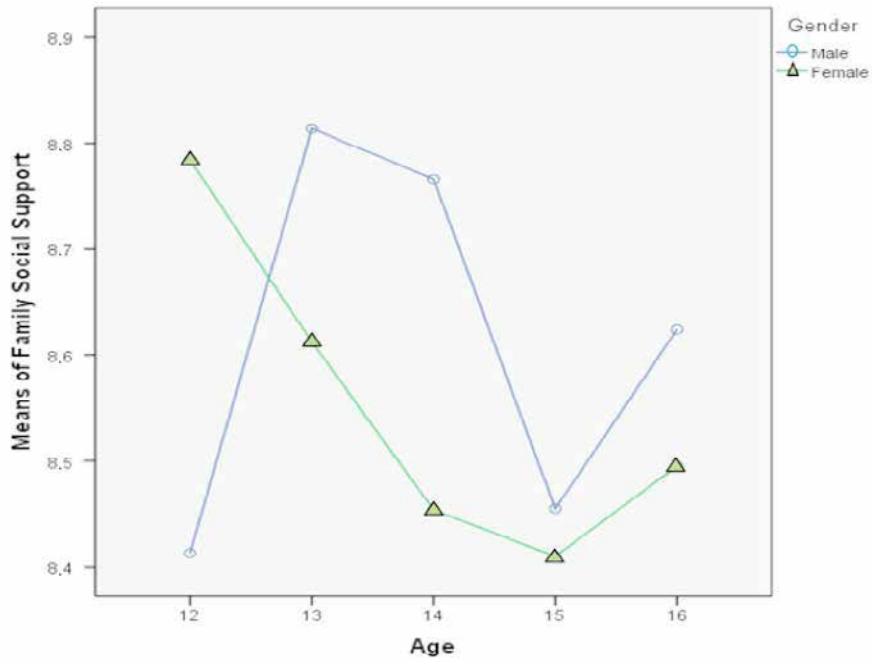


Figure 3. Interaction between Age and Gender Subgroups in the Variable Social Support from family.

Source: own work

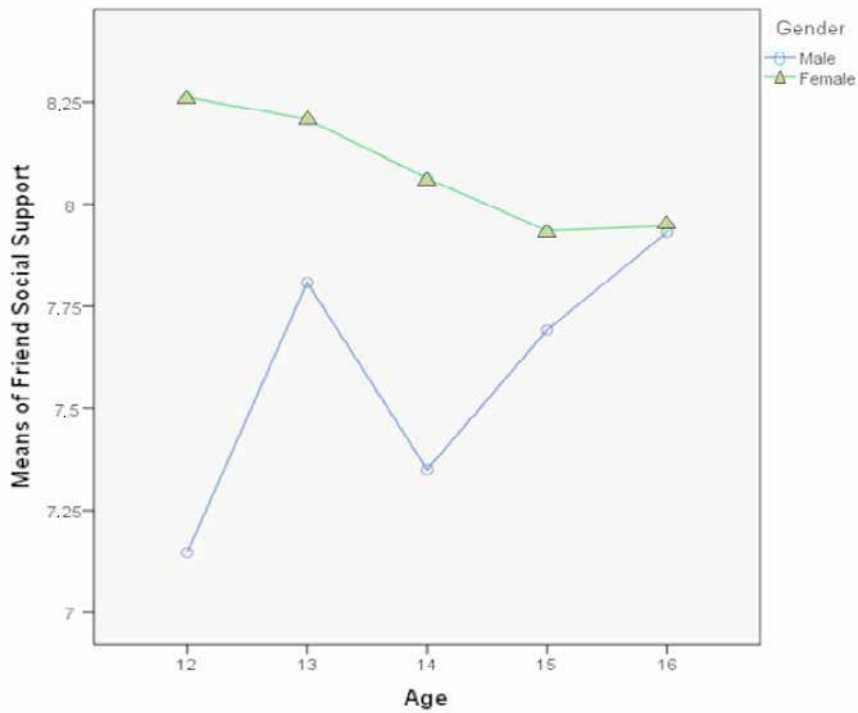


Figure 4. Interaction between Age and Gender Subgroups in the variable Social Support from Friends.

Source: own work

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TABLE 8
Correlations between SSA, PWI and OLS.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
My friends respect me	1																
My family cares a lot about me	0.30**	1															
My family holds a lot of esteem for me	0.34**	0.66**	1														
I can trust my friends	0.44**	0.2**	0.27**	1													
I'm really admired by my family	0.32**	0.59**	0.67**	0.33**	1												
My family holds a lot of affection (love) for me	0.27**	0.6**	0.63**	0.21**	0.62**	1											
The members of my family trust me	0.35**	0.54**	0.62**	0.3**	0.65**	0.56**	1										
I have a strong bond with my friends	0.41**	0.23**	0.25**	0.60**	0.26**	0.21**	0.27**	1									
My friends care about me	0.43**	0.26**	0.29**	0.59**	0.3**	0.22**	0.29**	0.71**	1								
My family really respects me	0.36**	0.57**	0.62**	0.29**	0.66**	0.58**	0.66**	0.27**	0.29**	1							
My friends and I are very important one to another	0.38**	0.24**	0.28**	0.5**	0.28**	0.29**	0.24**	0.61**	0.6**	0.29**	1						
My friends and I have done much for each other	0.39**	0.17**	0.24**	0.47**	0.23**	0.2**	0.2**	0.58**	0.57**	0.21**	0.62**	1					
Personal Well-Being Index	0.38**	0.36**	0.43**	0.34**	0.43**	0.34**	0.43**	0.34**	0.33**	0.41**	0.29**	0.25**	1				
Social Support Friends	0.64**	0.3**	0.35**	0.78**	0.37**	0.3**	0.35**	0.84**	0.84**	0.36**	0.8**	0.79**	0.41**	1			
Social Support Family	0.4**	0.78**	0.85**	0.32**	0.85**	0.81**	0.82**	0.3**	0.33**	0.83**	0.32**	0.26**	0.49**	0.41**	1		
Social Support	0.62**	0.63**	0.7**	0.67**	0.71**	0.65**	0.69**	0.69**	0.71**	0.7**	0.68**	0.64**	0.53**	0.85**	0.88**	1	
Overall Life Satisfaction	0.22**	0.28**	0.32**	0.21**	0.32**	0.27**	0.32**	0.16**	0.17**	0.34**	0.15**	0.14**	0.52**	0.23**	0.37**	0.34**	1

**Significant at $p < 0.001$

Source: own work

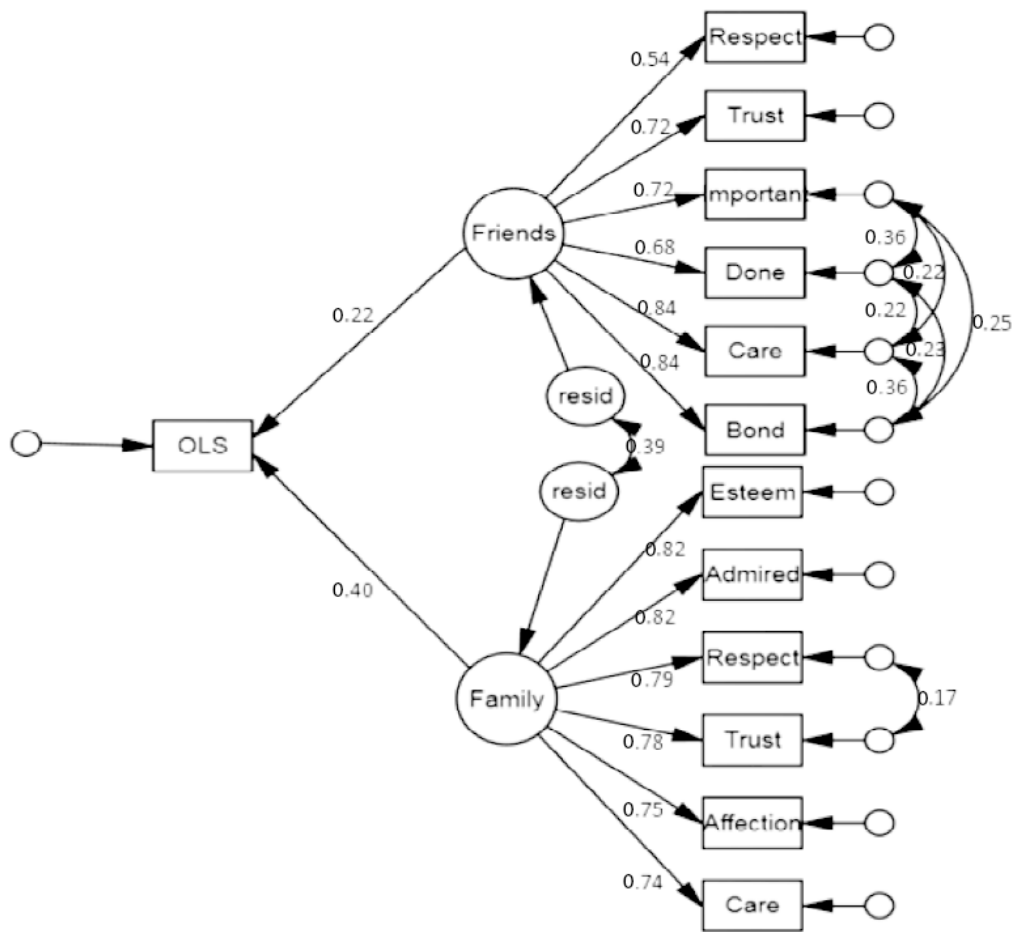


Figure 5. Model 1.

Source: own work

Figure 3 shows the interaction for the perceived social support from family for age and gender. As presented before, this interaction does not present significant differences.

Figure 4 shows the interaction for the perceived social support from friends. Girls present higher means than boys in all ages, except at sixteen years old, when the means are the same.

Structural Equation Models

The skewness and kurtosis of the variables ranged from -3 to +3, what is acceptable according to literature (Byrne, 2010). Levene's test showed significant differences in the dependent variables across subgroups. Pearson correlations were calculated

between the studied variables. Significant correlations were found between Overall Life Satisfaction and the Personal Well-Being Index with all items of perceived social support from friends and family and its factors ($p < 0.001$) (Table 8). Similarly, a significant correlation was found between overall life satisfaction and the personal well-being index ($r = 0.52, p < 0.001$). The perceived social support items that showed higher correlations with OLS and also with the PWI were family's esteem, admiration, trust and respect (respectively $r = 0.43, p < 0.001$; $r = 0.43, p < 0.001$; $r = 0.43, p < 0.001$; $r = 0.41, p < 0.001$ for the personal well-being index and $r = 0.32, p < 0.001$; $r = 0.32, p < 0.001$; $r = 0.32, p < 0.001$; $r = 0.34, p < 0.001$ for the overall life satisfaction variable).

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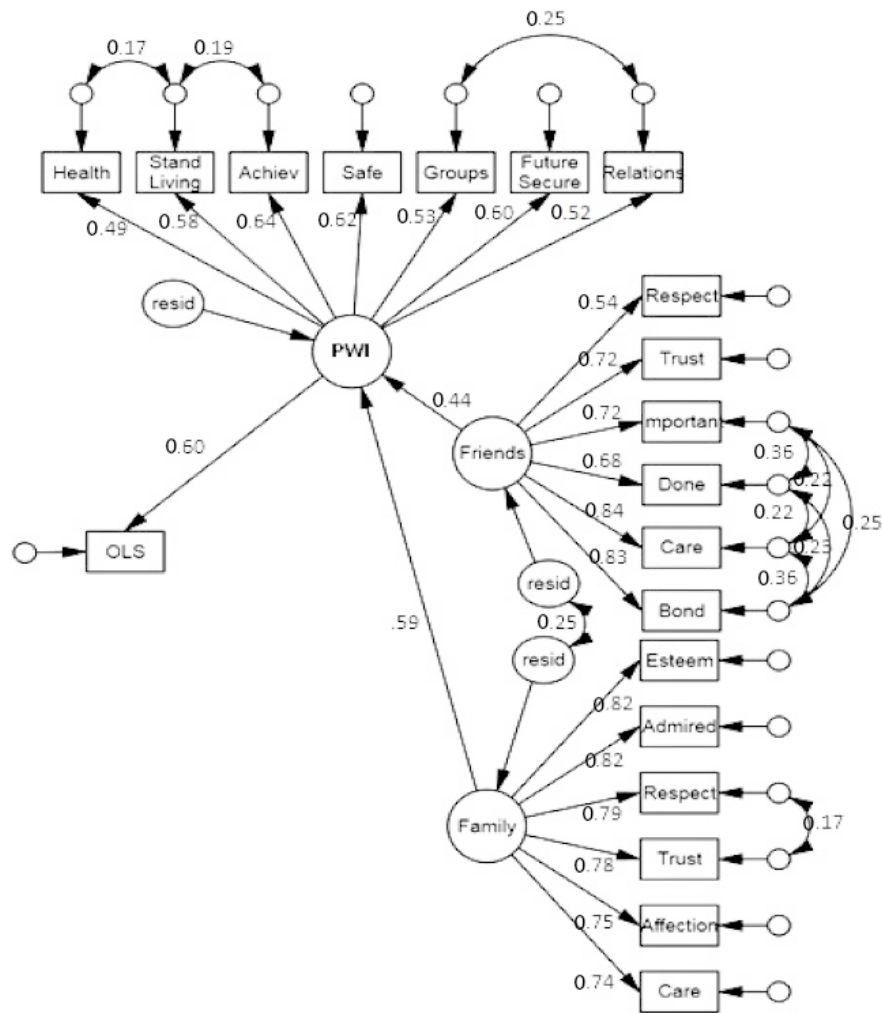


Figure 6. Model 2.

Source: own work

At a second step, a Confirmatory Factor Analysis of the SSA and PWI scales with the pooled sample was applied. Fit statistics showed satisfactory results according to the literature (Batista-Foguet & Coenders, 2000; Byrne, 2010). Results are reported in Table 9.

The next stage consisted on the construction and assessment of two different models. The first is a direct relationship between perceived social support and the OLS single item. Adjustments were applied to this model, which is shown in Figure 5. Subsequently, different specifications relating OLS to SSA and PWI were explored. As a result, the model that displayed the best fit statistics consisted

on the Personal Well-Being Index as a mediating factor between social support and satisfaction with life, and is shown in Figure 6. In both models the Family Social Support has a stronger relation with the well-being for adolescents.

The model in Figure 6 was tested for multigroup invariance using age and gender. It was taken into account the comparative fit indices between the models, considering the difference between the CFI of one model to another. The difference between the CFI (ΔCFI) should not be greater than .01, and thus, the results indicate the possibility of restricting the factor loadings to be the same in the different groups (Milfont & Fisher, 2010). The results are satisfactory

TABLE 9
Fit Statistics for the Factor and Structural Models

	Chi-Square	df	Sig.	RMSEA (C.I.)	CFI
Factor Model for PWI	28.1	11	p < 0.001	0.031 (0.017 – 0.046)	0.993
Factor Model for SSA	274.21	46	p < 0.001	0.056 (0.050 – 0.062)	0.978
SEM Model 1 pooled sample	291.29	56	p < 0.001	0.051 (0.046 – 0.057)	0.978
SEM Model 2 pooled sample	650.28	157	p < 0.001	0.044 (0.041 – 0.048)	0.964
SEM Model 2	902.02	314	p < 0.001	0.034(0.032 – 0.037)	0.958
Multigroup Gender: Unconstrained factor loadings					
SEM Model 2	927.32	333	p < 0.001	0.034(0.031 – 0.036)	0.957
Multigroup Gender: Constrained factor loadings					
SEM Model 2	1635.17	785	p < 0.001	0.026 (0.024 – 0.028)	0.941
Multigroup Age: Unconstrained factor loadings					
SEM Model 2	1755.56	853	p < 0.001	0.026 (0.024 – 0.028)	0.937
Multigroup Age: Constrained factor loadings					

Source: own work

with regards to the stability of the model in those two subgroups, as reported by Table 9.

The standardized regression weight estimates for age and gender in Model 2 are shown in Table

10. The data indicate that the PWI and OLS's regression weights reach almost 0.7 at the age of 16. The latent variable Family has a bigger weight than Friends with regards to the PWI. For boys and girls

TABLE 10
Standardized Regression Weights for Age and Gender

		All	12	13	14	15	16	Boys	Girls
PWI	<--- OLS	0.600	0.648	0.516	0.643	0.562	0.697	0.542	0.619
Friends	<--- PWI	0.443	0.549	0.494	0.351	0.59	0.222	0.507	0.44
Family	<--- PWI	0.594	0.689	0.678	0.534	0.606	0.5	0.616	0.584
Esteem	<--- Family	0.821	0.879	0.776	0.83	0.817	0.817	0.824	0.821
Admired	<--- Family	0.825	0.84	0.803	0.804	0.844	0.842	0.826	0.822
Respect	<--- Family	0.789	0.873	0.725	0.815	0.8	0.738	0.778	0.797
Trust	<--- Family	0.777	0.877	0.739	0.753	0.788	0.775	0.826	0.755
Affect	<--- Family	0.753	0.733	0.823	0.671	0.757	0.811	0.775	0.745
Care	<--- Family	0.739	0.836	0.695	0.682	0.799	0.716	0.732	0.742
Respect	<--- Friends	0.541	0.539	0.633	0.504	0.628	0.409	0.588	0.513
Trust	<--- Friends	0.72	0.792	0.675	0.7	0.729	0.727	0.697	0.737
Important	<--- Friends	0.722	0.776	0.672	0.703	0.728	0.729	0.761	0.695
Done	<--- Friends	0.682	0.641	0.726	0.647	0.672	0.731	0.661	0.686
Care	<--- Friends	0.835	0.921	0.781	0.826	0.83	0.844	0.864	0.822
Bond	<--- Friends	0.835	0.871	0.805	0.849	0.825	0.857	0.795	0.855
Health	<--- PWI	0.492	0.468	0.505	0.541	0.499	0.4	0.479	0.497
Stan. Living	<--- PWI	0.578	0.471	0.628	0.66	0.568	0.475	0.529	0.593
Achievement	<--- PWI	0.643	0.703	0.576	0.615	0.629	0.707	0.629	0.647
Safe	<--- PWI	0.625	0.678	0.609	0.607	0.564	0.696	0.576	0.644
Groups	<--- PWI	0.526	0.587	0.526	0.525	0.544	0.429	0.516	0.543
Future Sec.	<--- PWI	0.6	0.522	0.561	0.69	0.572	0.567	0.582	0.6
Relations	<--- PWI	0.517	0.618	0.538	0.54	0.436	0.504	0.547	0.509

Source: own work

the item that is more related to the latent variable PWI is achievements in life, followed by safety. The same occurs at the ages of 12, 15 and 16.

Discussion

By assessing the results in MANOVA, the existence of a latent factor that combines the variables OLS and PWI initially stands out. This latent factor, possibly referring to well-being, satisfaction and quality of life issues, shows differences within the gender and age subgroups. However, when the two variables are taken into account separately, other results emerge. The first refers to the gender dissimilarities found when the OLS item is considered alone. The main component of this item is an overall assessment of life satisfaction, which in some cases may suggest a more abstract assessment of life as a whole. In this sense, girls responded differently from boys, with lower scores in average. The difference found suggests that the boys' assessment of life is perhaps more optimistic.

The second result regards the PWI variable. Unlike OLS, it consists on a more contextual assessment with detailed scopes that compose an evaluation of personal well-being. Considering the PWI, significant differences were found with age, suggesting that the assessment on the scope and context of life changes during adolescence. In addition to that, there is evidence that it's a more sensitive measure to the age of the adolescent, but not to the gender.

These two results demonstrate the need of a deeper discussion about the quality, specificity and sensitivity of the instruments used to measure well-being or its dimensions. It was found that the OLS variable, perhaps because it is a streamlined item and reports to a global evaluation, is more stable and less susceptible to the adolescent's age, although it lacks specificity. The PWI presented itself as an instrument less susceptible to gender differences and cultural and biological characteristics, since it requires a less abstract evaluation about well-being, encouraging respondents to assign different evaluations in each item.

Regarding the SE Models, the observed relationship between well-being variables (PWI and OLS) and social support variables initially stands out. A specification that considers OLS directly related to social support was analysed. The beta weights suggest that other factors are mediating social support altogether with OLS. The hypothesis employed is that a more contextual evaluation may be closer to the social support assessment. In this case, the personal well-being items can represent a mediation of well-being dimensions with overall life satisfaction and social support.

One of the contributions of this study is the assessment of the relations between perceived support from adolescents' friends and family and their well-being in a theoretical model that can be applied to different age groups, regardless of gender. The proper fit achieved in this model is important for future research on adolescents' relationships, social contexts and their direct and indirect impact on adolescents' quality of life. However, despite the good fit of the model, cultural differences can play a role on the results. More research can be developed in this regard, since the model's relations tend to be established differently in other cultures.

From the data analysis we can conclude that the perception of social support from family and friends turns out to be an important dimension of well-being among Brazilian adolescents. Family and friends still have a central role in the adolescent's development (Godinho, Schelp, Parada, & Bertonecello, 2000; Leke et al., 2010; Pratta & Santos, 2007) and interventions that promote and strengthen the social support from these groups are important. The support system may also develop beyond family and friends, and may constitute an important source of esteem, care, respect and affiliation to a group (Gracia, 1998; López-Cabanas & Chacón, 1997).

Social support is a broad construct and the assessment of perceived support is only one dimension of it (Vaux & Wood, 1987). Therefore, future research could assess other dimensions of this construct, such as the resource network and the supportive behaviour of a given population. Moreover, other factors that predict well-being in

adolescents could be analyzed in order to contribute to a broader understanding of how this important construct is configured. This study has limitations, one is the fact that we have only cross-sectional data to check for differences by age. Longitudinal data could provide better evidence of change of well-being over time for adolescents. Furthermore, the difference in the number of participants by gender and age may have influenced the results, so more research is needed with larger samples for age and also with more male participants.

Comparative studies that determine the parents' perception of the adolescents' support and well-being is recommended, since support from family is critical in predicting the adolescent well-being in most of the factors analyzed. Furthermore, guidelines for family interventions can be helpful in order to reinforce the adolescent's social support perception and to improve their level of well-being. Additionally, considering the findings of this paper, further research on the differences between perceived support and the adolescents' well-being taking into account gender and age is also suggested, since it also plays a role on adolescents' perceptions.

References

- Antunes, C., & Fountaine, A. M. (2005). Percepção de apoio social na adolescência: análise fatorial confirmatória da Escala Social Support Appraisals. *Paidéia*, 15(32), 355-366.
- Batista-Foguet, J. M., & Coenders, G. (2000). *Modelos de ecuaciones estructurales*. Madrid: La Muralla.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York: Routledge.
- Campbell, A., Converse, P. E., & Rogers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage.
- Casas, F. (2010). El bienestar personal: su investigación en la infancia y la adolescencia. *Encuentros en Psicología Social*, 5(1), 85-101.
- Casas, F., Sarriera, J. C., Abs, D., Coenders, G., Alfaro, J., Saforcada, E., & Tonon, G. (2012). Subjective indicators of personal well-being among adolescents. Performance and results for different scales in Latin-language speaking countries: A contribution to the international debate. *Child Indicators Research*, 5(1), 1-28.
- Casas, F., Sarriera, J., Alfaro, J., González, M., Malo, S., Bertran, I., ... Valdenegro, B. (2012). Testing the personal wellbeing index on 12–16 year-old adolescents in 3 different countries with 2 new items. *Social Indicators Research*, 105(3), 461-482.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300-314.
- Collins, S., Coffey, M., & Morris, L. (2010). Social work students: Stress, support and well-being. *British Journal of Social Work*, 40(1), 963-982.
- Cummins, R. A. (1998). The second approximation to an international standard for life satisfaction. *Social Indicators Research*, 43(3), 307-334.
- Cummins, R. A., Eckersley, R., Pallant, J., Van Vugt, J., & Misajon, R. (2003). Developing a national index of subjective wellbeing: The Australian Unity Wellbeing Index. *Social Indicators Research*, 64, 159-190.
- Cummins, R. A., Eckersley, R., Lo, S. K., Okerstrom, E., Hunter, B., & Davern, M. (2004). *Australian Unity Wellbeing Index: Cumulative psychometric record*. Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University. http://acqol.deakin.edu.au/index_wellbeing/index.htm
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276-302.
- Fernández del Valle, J., & Bravo, A. (2000). Estructura y dimensiones de apoyo de la red social en los adolescentes. *Anuario de Psicología*, 31(2), 87-105.
- Gayman, M. D., Turner, R. J., Cislo, A. M., & Eliassen, A. H. (2010). Early adolescent family experiences and perceived social support in young adulthood. *Journal of Early Adolescence*, 31(6), 880-908. doi: 10.1177/0272431610376247
- Godinho, R. A., Schelp, J. R. B., Parada, C. M. G. L., & Bertencelo, N. M. F. (2000). Adolescentes e grávidas: onde buscam apoio? *Revista Latino-Americana de Enfermagem*, 8(2), 25-32. doi: 10.1590/S0104-11692000000200005

- Gracia, E. (1998). *El apoyo social en la intervención comunitaria*. Barcelona: Paidós.
- Gracia, E., Herrero, J., & Musitu, G. (1995). *El apoyo social*. Barcelona: PPU.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2005). *Análise Multivariada de dados*. Porto Alegre: Bookman.
- Huebner, E. S. (2004). Research on assessment of life satisfaction of children and adolescents. *Social Indicators Research*, 66, 3-33.
- Kline, R. B. (1991). Latent variable path analysis in clinical research: A beginner's tour guide. *Journal of Clinical Psychology*, 47(4), 471-484.
- Lekes, N., Gingras, I., Philippe, F., Koestner, R., & Fang, J. (2010). Parental autonomy-support, intrinsic life goals, and well-being among adolescents in China and North America. *Journal of Youth and Adolescence*, 39(8), 858-869. doi: 10.1007/s10964-009-9451-7
- López-Cabanas, M., & Chacón, F. (1997). Apoyo social, redes sociales e grupos de autoayuda. In M. López-Cabanas & F. Chacón (Eds.), *Intervención psicosocial y servicios sociales: un enfoque participativo* (pp. 183-215). Madrid: Síntesis Psicológica.
- Milfont, T. L., & Fischer, R. (2010). Testing measurement invariance across groups: Applications in cross-cultural research. *International Journal of Psychological Research*, 3(1), 111-121.
- Pratta, E. M. M., & Santos, M. A. (2007). Família e adolescência: A influência do contexto familiar no desenvolvimento psicológico de seus membros. *Psicologia em Estudo*, 12(2), 247-256.
- Sarriera, J. C., Abs, D., Casas, F., & Bedin, L. (2012). Relations between media, perceived social support and personal well-being in adolescence. *Social Indicators Research*, 106(3), 545-561.
- Stones, M. J., & Kozma, A. (1985). Structural relationships among happiness scales: A second order factorial study. *Social Indicators Research*, 17, 19-28.
- Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York: Praeger.
- Vaux, A., & Wood, J. (1987). Social support resources, behaviour, and appraisals: A path analysis. *Social Behavior and Personality*, 15(1), 105-109.
- Vaux, A., Phillips, J., Thomson, B., Holly, L., Williams, D., & Stewart, D. (1986). The Social Support Perceptions (SSA) Scale: Studies of reliability and validity. *American Journal of Community Psychology*, 14, 195-220.

