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The impact of social skills and coping strategies on problem solving in psychology university students

O impacto das habilidades sociais e das estratégias de enfrentamento na resolução de problemas em universitários de psicologia

El impacto de las habilidades sociales y las estrategias de afrontamiento en la resolución de problemas en estudiantes universitarios de psicología

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Abstract: This study aimed to investigate whether Social Skills and Coping Strategies predict the variable Problem Solving in psychology students. Participants were 409 psychology students from private institutions, with ages ranging from 18 to 34 years (*M*= 24.97; *SD*= 5.04). The Social Skills Inventory, the Problem-Solving Modes Scale and the Problem-Solving Skills Scale were used as instruments. The results showed that the Problem Coping Modes Scale and the Social Skills Inventory together accounted for 16% of the variance of the overall scale of the Problem Solving Skills Scale, which may be an indication of how students solved their problems. The results contribute to the development of problem-solving skills involved in the training of future psychologists and in the development of students.

Keywords: Social Skills, Undergraduate Students; Problem Solving; Coping Strategies

Resumo: Este estudo objetivou investigar se as Habilidades Sociais e Estratégias de Enfrentamento predizem a variável Resolução de Problemas em estudantes do curso de Psicologia. Participaram 409 universitários de Psicologia de instituições privadas, com idade variando de 18 a 34 anos (*M*= 24,97; *DP*= 5,04). Foram utilizados como instrumentos o Inventário de Habilidades Sociais, a Escala Modos de Enfrentamento de Problemas e a Escala de Habilidades para Resolução de Problemas. Os resultados mostraram que a Escala Modos de Enfrentamento de Problemas e o Inventário de Habilidades Sociais juntos representaram 16% da variância da escala geral da Escala de Habilidades para Resolução de Problemas, o que pode ser uma indicação de como os alunos resolveram seus problemas. Os resultados contribuem para o desenvolvimento das habilidades de solução de problemas envolvidas no treinamento de futuros psicólogos e no desenvolvimento dos estudantes.

Palavras-chave: Habilidades Sociais; Universitários; Resolução de Problemas; Estratégias de Afrontamiento

Resumen: Este estudio tuvo como objetivo investigar si las habilidades sociales y las estrategias de afrontamiento predicen la resolución de problemas en los estudiantes de psicología. Los participantes fueron 409 estudiantes de psicología de instituciones privadas, con edades comprendidas entre 18 y 34 años (*M*= 24.97; *DE*= 5.04). Se utilizaron el Inventario de habilidades sociales, la Escala de modos de resolución de problemas y la Escala de habilidades de resolución de problemas. Los resultados mostraron que la Escala de modos de resolución de problemas y el Inventario de habilidades sociales en conjunto representaron el 16% de la varianza de la escala general de la Escala de habilidades para resolver problemas, lo que puede ser indicativo de cómo los estudiantes resolvieron sus problemas. Los resultados contribuyen al desarrollo de habilidades de resolución de problemas involucradas en la formación de futuros psicólogos y en el desarrollo de los estudiantes.

Palabras clave: Habilidades Sociales; Universitarios; Resolución de Problemas; Estrategias de Afrontamiento

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The training of the Psychologist, as shown by the study of Mourão and Abbad (2016), needs to be rethought in terms of the training of skills in the different Brazilian regions where the courses are held. In addition, the low qualification of students has been presented in the course reports conducted through ENADE (National Student Performance Examination/Ministry of Education, 2018) not only at the technical level, made explicit in conceptual and theoretical ignorance, but also in the mastery of the language and reflexive ability. Although the Curricular Guidelines for the Psychology Course present development characteristics and strategies required for the profession, Mourão and Abbad (2016) indicated a deficit to adequately face the interpersonal interaction processes that still exist in the training of this professional.

Given the interpersonal nature of the psychologist's professional performance, it is evident that, from their undergraduate training, it is necessary to develop and improve social skills in addition to learning academic content. The management of social relationships in the work context associated with technical competence is highlighted as a criterion for the assessment of the therapist's role (Soares, Gomes, Maia, Gomes, & Monteiro, 2016). These authors consider that the psychologist's practice must be interactive to facilitate the development of people's interpersonal skills and not be restricted to technical qualification. Researchers (Soares & Prette, 2015) in the area of social skills complement this by showing that undergraduate training must articulate both technical and social competence, with proficiency in specific techniques (instrumental ability), mastery of theoretical knowledge that supports critical thinking (analytical capacity) and social performance that fulfills different requirements (social competence). Therefore, social competence is considered to be an important requirement for the performance of the future therapist.

What can be seen is that the undergraduate courses basically favor technical knowledge over the development of socioemotional, cognitive and metacognitive skills (Leme et al., 2016).

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It is in the academic environment that the professional training of university students must be increasingly guided by social competence, in addition to technical competence (Z. Del Prette & Del Prette, 2001).

Nevertheless, the development of social competence is a pending issue in higher education, as systematic teaching conditions for its promotion are not planned (Ramos, Costa, & Feitosa, 2017). However, the literature shows that a good repertoire of Social Skills needs to be integrated into the domains of competence (knowledge, skills and attitudes) for full professional functioning. Social skills can be understood as different classes of social behaviors that help individuals to face the processes of interpersonal interaction (A. Del Prette & Del Prette, 2017).

Authors Soares and Del Prette (2015) found that the assertive skills of arguing in favor of one's ideas and disagreeing and refusing requests are among the most deficient skills of Psychology students. Soares and Z. Del Prette (2015) justified the importance of a good repertoire of social skills in Psychology students by highlighting that their performance is essentially through interpersonal relationships, these being indispensable for the effectiveness of this performance. The study by Tavares, Couto and Silva (2012), complementarily showed that Psychology students presented more friendly relationships in interpersonal relationships, however, less assertive expressions of positive feelings than other university students. In addition, the study indicated that Psychology students obtained higher social skill scores in Positive Feelings ($M = 21.79$); Conversation ($M = 18.80$); New Situations ($M = 9.78$); and Aggressiveness ($M = 8.66$) than students of other courses (Positive Feeling $M = 19.25$; Conversation $M = 17.73$; New Situations $M = 7.41$; and Aggressiveness $M = 6.92$) which, according to the authors, can be explained by the different academic background and the social pressure of expectations of interpersonal relationships of kindness.

In order to identify the problems that cause deficits in social skills in the academic life of university students, the study by Pereira, Wagner and Oliveira (2014) found that deficiencies in social skills can cause losses in the psychologist's practice, considering the relationship that the professionals establish with their clients. The study included the participation of 69 psychology students from two private universities in Rio Grande do Sul and the results indicated that 43.5% of the students had deficits in social skills, indicating low scores in Self-affirmation in the Expression of Positive Feelings and Self-affirmation and Coping with Risk.

From the perspective of helping students acquire more social skills in university situations of interpersonal relationships, Lima and Soares (2015) structured a social skills training course from situations considered difficult in the academic context. The course aimed to favor coping with these situations and was directed toward the acquisition of social skills by the students; the strengthening of existing social skills; and the elimination of competing behaviors in a preventive manner. A total of 11 university students from public and private Higher Education institutions of the state of Rio de Janeiro participated in this program. In addition to relational skills, the university context requires autonomy in fulfilling academic requirements such as meeting schedules, attending classes and internships and performing assessments, which can represent a difficult time and many challenges, as the students will have to demonstrate responsibility and adequate relationships so that they can make decisions in order to resolve their problems/conflicts.

Resolving problems/conflicts is a skill that has been little studied in psychology students. Problem-solving skills are defined by a metacognitive process that involves comprehending the nature of the problem and identifying effective solutions for changing the situation or even reacting to the problematic situation, modifying the negative emotions generated (D'Zurilla & Nezu, 1990). It is a cognitive process in which the subjects learn a repertoire of effective responses and develops skills to obtain relevant information regarding their actions (Monteiro & Soares, 2016).

The reflections on problem-solving skills in university students motivated a correlational, descriptive study (Ranjbar, Bayani, & Bayani, 2013), which had the purpose of verifying the relationship between the mental health of undergraduate students (Medical Sciences, Humanities,

Agriculture, Engineering and Art) with the resolution of social problems. With a sample of 369 university students, data analysis showed that the difficulty in resolving social problems was significantly negatively associated with somatic symptoms, anxiety, insomnia, social dysfunction, and severe depression. Accordingly, having the ability to solve social problems enables an analysis of choices that allows university students to effectively implement coping strategies to deal with everyday problems and requirements. The solution of problems increases the probability of coping adaptation and reduces the daily difficulties of life (D'Zurilla, & Nezu, 1990; 2007).

Resolving problems involves ways of coping and cognitive effort to regulate emotion and manage situations, which leads us to the definition of coping strategies. Coping strategies can have different styles, such as being focused on the problem, which is understood as an effort to modify the situation that caused the stress, on the emotion, which is defined as the effort to regulate the emotional state, and on the social support, concerning the support of other people, in which solutions are expected that are independent of the individual's action (Santos, 2016). In addition, coping strategies have an impact on the individual's quality of life. In general, students of both sexes differ in their perceived ability to deal with coping with problems. Possible determinants, such as age, sex, religion, university and academic performance can also influence the development of problem-solving skills (Gbenga & David, 2015).

In the international context, studies have investigated the way undergraduate students face the adverse situations related to the adaptation to Higher Education (Córdoba-Sánchez & Limonero-García, 2015; Hirsch et al., 2015). Coping strategies based on humor may be related to better academic adaptation (Oguz-Duran & Yuksel, 2010). Considering the adoption of this strategy, this result highlights the idea that the more the student knows how to deal with interpersonal difficulties, personal ways of dealing with adverse events and inappropriate behaviors, the greater the possibility of adhering to the University, the course and the professional choice. Similarly, Oliveira, Carlotto, Vasconcelos and Dias, (2014) identified possible relationships between academic adaptation and coping strategies in Brazilian university students. The results indicated that coping strategies based on problem solving and social support may be related to better adaptation to the university.

These results contrast in part with the study by Reeve et al. (2013), which found that the coping strategies related to problem solving are associated with lower levels of stress in the university. Similarly, Carlotto, Teixeira and Dias (2015) carried out a study, with 412 participants, on academic adaptation and coping strategies in university students. The authors concluded that emotion-focused strategies were negatively correlated with the process of academic adaptation and the strategy based on social support was positively correlated with this process, indicating that seeking support may suggest a peculiarity in dealing with stressors in an individual way. Perhaps, instrumentalizing students to face everyday university situations could provide significant results and favor the improvement of their adaptation to the new academic reality.

Extending the discussion on coping strategies, another study (Sagone & De Caroli, 2014), also with university students, dealt with the relationships between adaptability, the dimensions of psychological well-being and coping strategies, with a sample of 183 Italian students, aged 20 to 26 years, of the University of Catania. The results indicated that almost all dimensions of psychological well-being (personal growth, autonomy, and positive relationships with others) were positively correlated with coping strategies.

It should also be highlighted that the great challenge for the training of the future psychologist refers to the students' position in relation to knowledge (keeping up to date, contextualizing existing knowledge, developing autonomy) and personal characteristics (capacity for sensitivity, interpersonal flexibility and adaptability), as these are skills required for the professional practice (Ramos et al., 2017). In general, the study by Soares and Z. Del Prette (2015) highlights the importance of the interpersonal professional relationship of university psychology students, along with the identification of generalized difficulties among students. There are several

productions on the social skills and coping strategy theme, or social skills and problem solving, however, there is a lack of studies that verify whether the social skill and coping strategy constructs impact the problem-solving construct. The literature indicates that a repertoire of social skills elaborated may possibly contribute to a more competent formation of university students. It should be noted, however, that the prediction analysis of these variables may possibly facilitate the understanding of the relationship with the management of academic social situations of psychology students in their daily lives. Therefore, it is justifiable to see how the scores of coping strategies (to control the stress situations due to issues experienced in interpersonal relationships) and social skills (management of interpersonal relationships) impact on problem solving (in order to minimize levels of anxiety) and increase the student's perception of well-being, in addition to acting on promoting their adjustment. Accordingly, from this basis, this study aimed to investigate whether social skills and coping strategies predict the problem-solving variable in students of the undergraduate psychology course.

Method

Participants

A total of 409 university students of the psychology undergraduate course of private institutions in the state of Rio de Janeiro participated in the study, the sample being non-probabilistic and by convenience. The students included were in an age group between 18 and 34 years ($M = 24.97$; $SD = 5.04$) of both sexes, 323 (79%) of whom were female and 86 (21%) male. The participants belonged to social classes A (12%, $n = 50$); B1 (20%, $n = 80$); B2 (33%, $n = 136$); C1 (26%, $n = 105$); C2 (8%, $n = 33$); and D (1%, $n = 5$). According to the Brazil Economic Classification Criterion of the Brazilian Association of (Market) Research Companies (ABEP, 2017), the socioeconomic level is assessed considering the possession of goods, the presence of a domestic worker and the education of the head of the family. The score obtained can vary from 0 to 46 points. This score was categorized into levels, as recommended by the ABEP: A (35-46 points), B (23-34 points), C (14-22 points), D (8-13 points) and E (0-7 points). Classes D and E were regrouped into the same category, due to their low frequency.

Instruments

- The Social Skills Inventory - (*Inventário de Habilidades Sociais* – IHS) (Z. Del Prette, & Del Prette, 2001) is an instrument that is characterized by assessing social performance in different situations. Responses are given on a *Likert*-type scale that ranges from 0, never or rarely, to 4, always or almost always. The instrument can be applied collectively or individually. The analysis of the psychometric properties in the original study obtained positive discrimination indices, ranging from 3.0 to 16.7; satisfactory internal consistency with a Cronbach's alpha of .75; and a factorial structure of five specific factors: 1) *Self-affirmation and Coping with Risk* - composed of eleven items that refer to interpersonal situations that lead the respondent to react for the affirmation and defense of rights and self-esteem, with the potential risk of an undesirable reaction ($\alpha = .96$ as an index of reliability for this factor) ; 2) *Self-affirmation in the Expression of Positive Feelings* - composed of seven items that indicate interpersonal requirements for the expression of positive affection and affirmation of self-esteem, allowing minimum risk of an undesirable situation ($\alpha = .86$); 3) *Conversation and Social Resourcefulness* - also formed by seven items that assess the ability to deal with neutral social situations, with a minimum risk of an undesirable reaction from others ($\alpha = .81$); 4) *Self-exposure to Unknown or New Situations* - with four items that involve little risk of an undesirable reaction from the interlocutor ($\alpha = .75$); and 5) *Self-control*

of Aggressiveness - composed of three items that refer to adverse situations with reasonable control of anger and aggression (α = .74). In a study by A. Del Prette, Del Prette and Barreto (1999) it was found that the IHS was sensitive to identify changes in university students, with higher scores in social skills in the trained group and no effect in the control group. It also showed temporal stability, as a test-retest was performed in the control group. In the study by Bandeira, Z. Del Prette, Del Prette and Gerk-Carneiro (2000) in which psychology students responded to the IHS and the Rathus Assertiveness Scale, a significant correlation was identified between the two scales. In the test-retest application, a significant correlation was found between the two applications, confirming the instrument's temporal stability.

- The Ways of Coping Checklist (Vitaliano, Russo, Carr, Maiuro, & Becker, 1985) adapted to Portuguese by Gimenes and Queiroz (*Escala Modos de Enfrentamento de Problemas* - EMEP) (1997) and validated for the Brazilian population by Seidl, Trocoli and Zannon, (2001) is a self-report instrument that has 45 items distributed in four factors that investigates the thoughts and actions that the subject uses to deal with external and internal requirements in a stressful situation: 1 - Problem-Focused Coping (18 items, α = .84 as the reliability index for this factor); 2 - Emotion-Focused Coping (15 items, α = .81); 3 - Seeks Social Support (5 items, α = .70); and 4 – Wishful Thinking (7 items, α = .74). Responses are given on a 5-point Likert-type scale (ranging from 1 = "I never do this" to 5 = "I always do this"). The scores are obtained by the arithmetic mean, with higher scores indicating greater frequencies of use of the coping strategy.

- Social Problem-Solving Inventory (D'Zurilla & Nezu, 1990 adapted by Sá, 2005 - *Escala de Habilidades para a Resolução de Problemas* - EHRP). This scale determines the ability to solve problems according to the subject's behavioral and cognitive skills. It consists of 40 items distributed equally in four dimensions: 1) Problem Definition and Formulation (10 items, α =, 76 as a reliability index for this factor), 2) Generation of Alternative Solutions (10 items, α =, 44), 3) Decision Making (10 items, α =, 64) and 4) Solution Implementation and Verification (10 items, α =, 57). The study by Padovani, Schelini and Williams (2009) demonstrated that the EHRP was effective in predicting the performance of the analyzed group of adolescent offenders and non-offenders considering the Brazilian context with satisfactory psychometric properties (Cronbach's alpha of .78 and test-retest of .74).

Procedure

The research proposal was approved by the University's Ethics Committee with the voluntary consent of the participants, who signed a consent form. The application of the instruments took place in different environments in the Higher Education institutions, the majority of them collectively in classrooms, at times previously agreed with the professors. The order of application of the instruments was the EHRP, IHS and EMEP with an average participation time of 60 minutes.

Data Analysis

Descriptive statistical analysis of the data was performed using the Statistical Package for the Social Sciences (SPSS) version 20.0 software. Multiple Linear Regression (MLR) was used to verify the impact of the explanatory Coping Strategies and Social Skills variables, their respective factors and total scores as predictors of the Problem-Solving variable. Normality (deviations from the each observation predicted in the response variable in relation to the true scores, which are normally distributed), independence (whether the observations in a data set are correlated with each other) and multicollinearity (which occurs when the explanatory variables are highly

correlated with each other) between regressors were tested for and then multiple linear regression analysis (Stepwise Forward method) was performed.

Results

The descriptive data for each of the factors of the studied variables are presented in Table 1, with indications of mean and standard deviation for the sample.

Table 1

Descriptive statistics for each of the variables

Variables	Factors	Mean	*SD*
Social Skills	SACRisk	23.6	7.4
	SAEPosF	18.7	4.1
	CSR	12.2	5.5
	SEUNSit	7.8	2.9
	SCAggr	7.1	2.1
Strategies for Coping with Problems	PFocC	65.1	10.9
	EFocC	42.8	7.9
	WThink	22.4	5.3
	SSocial	16.7	3.8
Problem-Solving Skills	PDForm	27.2	7.1
	DM	25.7	6.5
	GASol	25.4	6.8
	SIVer	24.3	6.3

Note: SACRisk = Self-affirmation and Coping with Risk, SAEPosF = Self-affirmation in the expression of positive feelings, CSR = Conversation and social resourcefulness, SEUNSit = Self-exposure to unknown or new situations, SCAggr = Self-control of aggression, PFocC = Problem-focused coping, EFocC = Emotion-focused coping, WThink = Wishful thinking, SSocial = Seeks social support, PDForm = Problem definition and formulation, DM = Decision making, GASol = Generation of Alternative Solutions and SIVer = Solution Implementation and Verification.

Table 2 presents the factors of the predictor variables for the relation of management of academic social situations of the psychology students in their daily lives. The significant model presented indicates how the coping strategies and social skills scores impact the scores for problem solving. The factors *Self-affirmation and Coping with Risk* of the IHS and *Problem-Focused Coping* of the EMEP, with $\beta = 0.42$, explained 25% of the variance in the *Problem Definition and Formulation* factor of the EHRP (F = 6.84; $p = .00$). The *Problem-Focused Coping*, *Emotion-Focused Coping*, *Seeks Social Support* and *Wishful Thinking* factors of the EMEP, together with the *Self-affirmation and Coping with Risk* of the IHS, with $\beta = 0.31$, explained 21% of the variance in the *Decision Making* factor of the EHRP (F = 6.09; $p = .01$). Subsequently, the factors *Problem-Focused Coping* of the EMEP, *Self-affirmation and Coping with Risk* and *Self-affirmation in the Expression of Positive Feelings* of the IHS, with $\beta = 0.39$, explained 25% of the variance in the *Generation of Alternative Solutions* factor score of the EHRP (F = 7.38; $p = .01$). In sequence, the two factors *Self-Control of Aggressiveness* of the IHS and *Problem-Focused Coping* of the EMEP, with $\beta = 0.35$, explained 20% of the variance in the *Solution Implementation and Verification* factor of the EHRP (F = 5.21; $p = .02$).

Table 2
Result of the Multiple Linear Regression Analysis

MLR for the "Problem Definition and Formulation" factor of the EHRP			
	Beta	*t*	*p*
SACRisk	0.14	12.92	.00
EMEP_PFocC	0.42*	2.62	.01
MLR for the "Decision-Making" factor of the EHRP.			
	Beta	*t*	*p*
EMEP_PFocC	0.31*	8.59	.00
EMEP_EFocC	-0.08	-2.49	.01
IHS_CSocR	-0.10	-3.05	.00
EMEP_SSocial	0.09	2.74	.01
EMEP_WThink	-0.08	-2.47	.01
MLR for the "Generation of Alternative Solutions" factor of the EHRP			
	Beta	*t*	*p*
EMEP_PFocC	0.39*	11.09	.00
IHS_SACRisk	0.07	2.09	.04
IHS_SAEPosF	0.09	2.72	.01
MLR for the "Solution Implementation and Verification" factor of the EHRP			
	Beta	*t*	*p*
EMEP_PFocC	0.35*	10.34	.00
IHS_SCAggr	-0.09	-3.14	.00

Note: EMEP_PFoC = Ways of Coping Checklist – Problem-Focused Coping; EMEP_SSocial = Ways of Coping Checklist – Seeks Social Support; EMEP_TOTAL = Ways of Coping Checklist; IHS_SAEPosF = Social Skills Inventory - Self-affirmation in the Expression of Positive Feelings; IHS_SCAggr = Social Skills Inventory - Self-control of Aggressiveness; IHS_CSocR = Social Skills Inventory - Conversation and Social Resourcefulness; IHS_SACRisk = Social Skills Inventory - Self-affirmation and Coping with Risk; IHS_TOTAL = Social Skills Inventory.

It can be seen in Table 3 that the result of the MLR showed that the general scores of the Ways of Coping Checklist and the Social Skills Inventory together explained 16% of the variability in the general score of the Social Problem-Solving Inventory.

Table 3
Impact of the total EMEP and IHS scores on the total EHRP score

EHRP	Unstandardized coefficients		Standardized coefficients	*t*	Sig.	R^2
	B	Standard error	Beta			
(Constant)	8.52	6.15	-	1.39	0.16	0.16
EMEP_TOTAL	0.39	0.04	0.32	9.83	0.00	
IHS_TOTAL	0.14	0.05	0.09	2.73	0.00	

Discussion

The coefficients of the linear regression model demonstrated (Table 2) that the factors related to the interpersonal situation that leads the student to have the potential risk of an undesirable reaction (IHS_SACRisk) and the modification of the stress-generating situation (EMEP_PFocC) had a positive impact on the "*Problem Definition and Formulation*" factor of the EHRP, which addresses aspects such as the tendency for the establishment of realistic and resolutive goals. This result shows that university students that identify their requirements to overcome difficulties, from a cognitive and/or coping perspective, are probably also more focused on understanding and changing their problematic situation, even with the risk of an undesirable reaction. This result is supported in the literature (Sagone & De Caroli, 2014), as university students that demonstrate using the problem-focused coping strategy and perceive their real situation, generally choose a better way to face/resolve problems in stressful situations. According to Ranjbar et al. (2013), making use of a coping strategy in everyday life can favor the construction of a more harmonious academic environment.

Regarding the factors related to the possibility of better handling of stressful situations (EMEP_PFocC) and seeking cooperation and comfort from people in the social environment (EMEP_SSocial), a positive impact was observed in the "*Decision Making*" factor of the EHRP, which defines comparing the consequences of different solutions for a problem. These data show that the use of the social support strategy, associated with the support found in people and in the environment can reduce stress, providing favorable conditions for the rationalization of problems typical of the university environment and the evaluation of the best response option. The perception of friendship and cooperation, both in the academic context and outside, can favor the student in decision making (A. Del Prette & Del Prette, 2017). It can be noted, therefore, that strategies to focus on the problem and social support can be considered adaptive, that is, used to remove and/or face the problem in the decision-making process (Córdoba-Sánchez & Limonero-García, 2015). There was also a negative impact of factors related to the attempt to alleviate, decrease or regulate the student's emotional state faced with stressful events (EMEP_EFocC), shyness or an attitude of denial in the face of the stressful situation (EMEP_WThink) and the ability to cope with neutral social situations (IHS_CSocR) on the "*Decision Making*" factor of the EHRP. Students that have a repertoire based on a lack of emotional control, lack of social skills or that depend on others to resolve an issue, or even wait for "hidden forces" to resolve their problems, are not in a position to make appropriate decisions (Ranjbar et al., 2013). This type of coping (with a focus on emotion and wishful thinking) can represent a palliative reaction to temporarily reduce the stress caused by the problem (Carlotto et al., 2015).

Regarding the factors related to the active effort aimed at restructuring the problem (EMEP_PFocC), expression of positive feelings (IHS_SAEPosF) and the reaction in defense of rights with the potential risk of an undesirable reaction (IHS_SACRisk), a positive impact was noted on the "*Generation of Alternative Solutions*" factor, which refers to the identification of the varied number of solutions. This data suggests that the student that is assertive in social interaction

is able to overcome the difficulties posed by academic life. This result is similar to the findings of Pereira, Wagner and Oliveira (2014), who found that psychology students that already had a good repertoire to deal with the expression of positive feelings, affirmation of self-esteem and to cope with interpersonal situations that require assertion and with the expression of positive feelings may be better able to solve their problems. This fact corroborates the study by Hirsch et al. (2015) on the importance of investigating how undergraduate students deal with adverse situations in the academic context.

Regarding the factor related to the effort aimed at reassessing the problem (EMEP_PFocC), there was a positive impact on the "*Solution Implementation and Verification*" factor, which comprises the evaluation of the results of the chosen solutions. This result shows that students that assume behavior of confronting the stressor in order to resolve the problem, manage the stressful situation better. The problem-focused coping factor refers to cognitive and behavioral commitment and work as an indicator of a positive response in solving problems to cope with adverse situations (Sagone & Caroli, 2014). When focusing on the problem, university students manage the source of their questions better and assess their effects, corroborating the research data by Padovani, Schelini and Williams (2009). There was also a negative impact of the factor related to adverse situations with reasonable control of anger and aggression (IHS_SCAggr) on the "*Solution Implementation and Verification*" factor. This result reveals that students that present a deficit in the control of Aggression repertoire will not usually behave in a socially competent way to dispel any problem (Z. Del Prette, & Del Prette, 2001). This is a worrying fact, as it is necessary that psychology students have social skills to communicate with precision, clarity and efficiency and, above all, that they can control their aggressiveness and find solutions to their challenges, as well as transform knowledge into an effective practice (Pasqualotto et al., 2015), which is fundamental for university students in all configurations.

It should be highlighted (Table 2) that the *Problem-Focused Coping* strategy of the EMEP had an impact on all factors (*Problem Definition and Formulation*, *Decision Making*, *Generation of Alternative Solutions* and *Solution Implementation and Verification*) of the Social Problem-Solving Inventory. All of these EHRP factors can affect the specific perceptions of new problematic situations, influencing the time and effort that is spent, the emotions that are generated and the efficiency of the subjects' performance (D'Zurilla & Nezu, 2007). The problem-focused strategy refers to cognitive and behavioral efforts to face difficult situations (Sagone, & De Caroli, 2014) and is a positive response indicator of great effectiveness for problem solving, with an adaptive tendency in cognitive processes, viewing the problem as possible to be solved. The problem-focused strategy may involve negotiating to solve a situation of interpersonal stress in order to resolve a problem. It can be noted that psychology students use this strategy to define an action plan, that is, a set of cognitive processes to try to reduce emotional discomfort and selective attention and to encourage the extraction of positive values when faced with negative events to resolve an adverse situation (Hirsch et al., 2015).

It should be emphasized that students with problem-solving skills have coping strategies to deal with difficult/stressful situations in the university context that prepare them for the transition to the job market (Mourão, & Abbad, 2016), which can be crucial for the education of the student for good social/work performance in the future (Oliveira et al., 2014). The present study also highlighted that coping strategies and social skills together explained 16% of the students' problem solving in the university context (Table 3). Accordingly, the students that had more elaborate social skill repertoires and more realistic coping strategies focused objectively on the problem tended to solve their problems more effectively. Although the adjusted determination coefficient may seem low (adjusted $R^2 = 0.16$), it is common to find values of this order in practical cases of Multiple Linear Regression analysis in the Social Sciences. For example, studies by Soares, Santos, Andrade and Souza (2017) obtained an adjusted R^2 of 4.8%. This result indicates that problem solving is significantly associated with an elaborate repertoire of social skills (Ranjbar et al., 2013)

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in the management of academic social situations. This social problem-solving ability involves cognitive and behavioral processes necessary to adequately deal with various stressful problems experienced in the academic context (D'Zurilla & Nezu, 1990). In this way, students that can identify a conflict situation in the academic environment must inevitably position themselves firmly to recover from crisis situations, as well as overcome the stressors they experience with themselves, cognitive characteristics, provided they also have support from other people. That is, students relate the positive experiences that lead them to feelings of autonomy, so that they can deal with changes to solve problems. Consequently, the students can construct personal resources that provide greater satisfaction related to how they deal with adversities (Juliano & Yunes, 2014).

Conclusions

This study sought to investigate the existence of a predictive relationship between the social skills repertoires, coping strategies and problem solving in psychology students. Considering the studies listed, it was found that the coping with problems and social skills constructs together provide considerably better results in the way students resolve their problems.

The study found that the psychology students in this sample presented a predictive association between coping strategies and problem solving, which may indicate that greater use of strategies as an essential role in personal, social and academic development in problem situations equates to a better general decision-making ability. Although the present study contributes to the adjustment of the teaching program directed toward developing problem-solving skills involved in the training of the future psychologist, some limitations were evidenced, such as the small number of students from public institutions and all being from a single region. Therefore, it is necessary to carry out further studies with psychology interns, investigating specific difficulties in handling adverse situations. Assertive social skills are likely to explain students' problem solving to deal with adversities in the university context, as well as identify effective ways to resolve the problems experienced by students. However, in order to be able to develop truly effective interventions for improving the deficits found in the academic environment, it is important, initially, to understand the development of social skills in university students as a requirement for the learning and interaction process between intern and patient/client.

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