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Emotional-Evolutional Model of Social Anxiety in University Students
Valeria E Morán*, Fabián O Olaz, Edgardo R Pérez
Universidad Nacional de Córdoba, Argentina
Zilda AP Del Prette
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ABSTRACT

Studies of social anxiety in university students have become of particular importance given its disabling impact over social adjustment and psychological well-being. The present research had the objective of developing an explanatory model of this phenomenon with principles based on attachment theory and the theories of emotional regulation. We worked with a sample of 438 university students and structural equation modeling (SEM) was used for data analysis. We produced an explanatory model which presented appropriate adjustment indexes (CFI = .95; GFI = .95; RMSEA = .05). In this model, the predictive role of expectations of social rejection and the difficulties in emotion regulation in the etiology of social anxiety are clear. These factors are in turn influenced by the fear of abandonment linked to internal working models of insecure attachment of development in early childhood. Significant differences were found in favour of women in percentages of variance explained in social anxiety and expectations of social rejection.

Key words: social anxiety, structural equation modeling, university students.


Nowadays we are witnessing an accelerating process of socio-economic and cultural changes. The complex social networks the individuals take part in, as well as the greater interdependence of the different subsystems of the society, make the quality of social interaction fundamental in each developmental stage. Following this, there is evidence that the quality of interpersonal links represents a protective factor when facing different psychological stressors and that little social connection is linked to greater prevalence of psychological problems. Therefore, for example, strong connection between dissatisfaction in social relationships and depression (Whisman, 2001) and in its recurrence (Vittengl, Clark, & Jarrett, 2009) has been found.

Novelty and Significance

What is already known about the topic?
• Has been reported a high prevalence of clinical problems and interpersonal and social issues in youth.
• There is a lack of predictive models with empirical support about social anxiety in university students.

What this paper adds?
• An integral model of evolutive and emotional theoretical developments of social anxiety.
• Difficulties in emotion regulation and expectations of social rejection based on fear of abandonment, might predict states of social anxiety.
• The model explains significantly higher percentage of variance of social anxiety and expectations of social rejection in women compared to men.

* Correspondence concerning this article should be addressed to: Valeria E. Morán, Universidad Nacional de Córdoba, Instituto de Investigaciones Psicológicas- IIpsi, Enfermera Gordillo s/n, Ciudad universitaria, CP 5000, Córdoba, Argentina. E-mail: moranvaleria@gmail.com. Acknowledgment: This research received a grant from the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET).
In this sense, one of the interpersonal problems that mostly affects people worldwide is social anxiety with an annual prevalence of approximately 7% (Bandelow & Michaelis, 2015).

Although it is common and usual for people to experience anxiety when facing certain situations, social anxiety as nosological entity becomes such according to its clinical significance and also when we consider to what extent there is a negative interference in the sufferer’s daily life and main vital areas in their lives. Social anxiety is characterized by persistent fear, which is caused by social situations or performances in public, because they might become embarrassing or humiliating (American Psychiatric Association, 2000). It emerges from the possibility of an interpersonal evaluation in real or imaginary social situations, that is to say, it is the product of an individual’s concern about how he is perceived and assessed by the others (Leary & Kowalski, 1995). This concern involves negative thoughts and cognition, accompanied by physical symptoms, such as sudation, blushing and rapid acceleration of heart rate.

Although this disorder affects people at different ages, adolescence and youth are critical developmental stages characterized by great vulnerability in relation to this psychological problem. At the age an individual starts a course of studies at university (usually at 18 or 19 years old) there are a series of vitally important changes such as leaving family homes, searching roommates/partners and looking for a job. Therefore, the young individual faces different emotional and interpersonal demands and is exposed to new environments that can become threatening if the person does not possess the necessary resources to cope with them. In this context students are exposed to not only continual assessment by teachers and authorities but also to the permanent evaluation of members of the university group which they belong to and which they relate to daily (Velasquez et alii, 2008).

Due to this, we can understand the prevalence of problems of social functioning as well as different pathologies in this group, which explains the increase of empirical studies and theoretical development that have aroused in the last two decades. In this sense, the results of different research show high prevalence of clinical problems and interpersonal and social issues in university students (Buckner & Schmidt, 2009; Collins, 2009; O’Grady, Cullum, Armeli & Tennen, 2011).

Leary (1986) suggests that people become socially anxious when they are motivated to generate particular impressions on others but doubt about the success of their performance. Following this, in some studies, it has been observed that social phobic adults also attach fundamental importance to being positively appraised by others and tend to assume that other people are inherently critical and prone to evaluate others negatively (Banerjee & Henderson, 2001).

Studies carried out in university students reveal that the feelings of abandonment during childhood are related to depressive and anxiety characteristics and they also highlight the important influence of the attachment processes over the vulnerability to develop problematic behavioural patterns later in adulthood (Agudelo Vélez, Casadiegos Garzón & Sánchez Ortiz, 2009). Specifically, insecure attachment relationships between the child and the caregiver is a risk factor in the development of not only anxiety disorder in general but also social anxiety (Hudson & Rapee, 2009; Kearney, 2005).

Vertue (2003) states that the type of parenting practices associated with a strong need of approval is also linked to insecure attachments processes, which suggests that the need of approval can be related to internal working models derived from the styles of parenting. That is to say, if the caregivers are perceived by the children as unreliable
or unavailable, this may shape internal working models about themselves directly related to the desire to give a particular impression to another person. Due to this, considering the implications of the expectations of the people over their early relationships in the context of the attachment theory can provide a useful framework for the conceptualization of the etiology and maintenance of social anxiety (Eng, Heimberg, Hart, Scheneier & Liebowitz, 2001).

A historical pattern in the life of the person where the others tend to inconsistently respond to his/her needs or not to respond at all, generates insecurity of others’ availability and responsiveness, which may cause him/her to feel less confident about his/her ability to engage in social interactions (Wei, Russell & Zakalik, 2005). In this sense, negative models referred to the self and the others have three conditions that generate thoughts and actions that lead to social anxiety. These are one’s motivation to impress others, one’s expectations to do so satisfactorily and fear of negative evaluation by others that may bring about as a consequence impairments to maintain proximity or the relationship (Leary, 2001; Vertue, 2003).

Sroufe (2000) predicts that when the emotion regulation is effective in early childhood, by means of secure attachment, it will have adaptive consequences in the expression, modulation and flexibility in the regulation of emotion in the future. Consequently, Diener, Mangenlsdorf, McHale, and Frosch (2002) suggest that infant–caregiver attachment relationships is significantly associated with the development of the capacity for emotion regulation. An environment that validates this may promote an effective repertoire of capacities of emotion regulation, such as the capacity to express, understand and control emotions in in an adaptive way (Bustamante, Barona & Del Barco, 2010). Secure attachment may allow processing and integration of social experiences efficiently, partially because it is possible to detect subtle emotional signals in the interactions with other people (Allen et alii, 2002).

On the other hand, different studies showed that avoidant and anxious attachment relationships are linked to a lower capacity to control anxiety and emotion (Ditzen et alii, 2008; Maunder, Lancee, Nolan, Hunter & Tannenbaum, 2006). According to Brennan, Clark and Shaver (1998) anxious attachment is defined by fear of rejection and abandonment. Some research has shown that this type of attachment is associated with problems of affect regulation and cognition. It has also been observed that this relationship manifests by the autonomous propagation of the activation of emotions and negative memories (Mikulincer, 1995; Mikulincer & Orbach, 1995).

People with anxious attachment must use strategies of hyperactivation in order to try to obtain greater attention from others, that is to say, they are more emotionally sensitive and reactive to problems they experience (Wei, Vogel, Ku, & Zakalik, 2005). Following this, Thompson (1994) claims that the relationship with caregivers who are unreliable, unavailable, untrustworthy, and largely uncommunicative may lead to a limited number or viability of emotional responses or difficulties to cope with emotional hyperactivation.

Emotional states play an important role in the performance of individuals during social interactions, since emotions affect physiological reactions as well as cognitive processes and behaviours (Sánchez Navarro, Martínez Selva, Román, & Torrente, 2006). Emotion regulation consists in the management of internal affective states, which determines emotion regulation strategies to cope with different situations in order to adapt to the demands of our environment- the tendency to select and use strategies that result maladaptive, leads, among other things, to the fear of losing control, which generates
greater anxious reactivity. In the face of intense emotions and scarce resources to control and manage them functionally, the negative expectations about the consequences of social performance may increase.

Werner, Goldin, Ball, Heimberg, and Gross (2011) investigated the mechanisms of emotion regulation among people with social anxiety disorders and revealed that the participants reported a greater use of suppression and avoidance as well as less self-efficacy when applying cognitive reassessment than the control group. The authors concluded that there is a specific deficit in the regulation of the emotion in socially anxious people. In this sense, research has shown that people who use suppression as preferred method, when decreasing their emotional responsiveness, generate negative effects in others, which affects their interpersonal relationships (Gross, 1998) and social competence (Talavera, Garrido, & Talavera, 2007).

Leary (2001) indicates that individuals who suffer social anxiety are fearful in social situations because their expectations and social goals are high and because they want to make a particular impression on others, but doubt they will do so. Rapee and Heimberg (1997) postulate that to reduce the potential risk of rejection in a social interaction, the anxious individual is likely to engage in a variety of subtle behaviours such as avoiding eye contact, reducing verbal output or voice tone, and standing on the periphery of a group. These behaviours are perceived by the audience and they often have the effect of reducing effective social performance and can facilitate a self-fulfilling prophecy. As a result, the social phobic receives further feedback, both from his/her own monitoring of behaviour and from the audience’s verbal and nonverbal responses that performance is inferior. In this way, even if the individual has a suitable repertoire of social skills, he/she might not act competently due to inhibition mediated by expectations of rejection.

In view of the above, social anxiety might be influenced directly by expectations of social rejection (ESR) which individuals face in social situations in general and by difficulties to regulate the emotional states (DRE) that provide information about the internal state and the ability to perform appropriately. These two factors might be affected in turn by fear of abandonment (FA) associated with internal working models determined by patterns of insecure attachment from childhood. These models might generate a set of expectations and beliefs about the self and the others that structure and lay the foundations for their own capacity to regulate emotions as well as negative expectations of outcome in social interactions. In this sense, fear of abandonment might have a direct influence in generation of social anxiety. The explanatory model of social anxiety put forward in this article integrates individuals’ historical and evolutionary aspects as an alternative to previous theoretical models.

Among the different explanatory models of social anxiety, Heimberg and Rapee’s is the most important due to being one of the first models put forward by researchers. In their first model of the onset and maintenance of social anxiety they highlight the way the audience is perceived, the direction of the attentional resources towards negative external signals and the behavioural, cognitive and physical consequences that this information generates in the individual (Rapee & Heimberg, 1997). On the basis of this model, other models, which are derived or complementary to it, were put forward. They included different evolutionary, genetic, behavioural, social, cognitive variables and variables of social interaction in order to provide proximal explanation to the etiology of social anxiety (Hoffman, 2007; Heimberg, Brozovich, & Rapee, 2010; Rapee & Spence, 2004). However, these models constitute theoretical constructs of the phenomenon and,
even though they contribute to its study, they have not been studied in terms of their empirical adjustment. On the other hand, the lack of theoretical and empirical models for university students is surprising. Therefore, it is necessary to produce predictive models with empirical support in this group to improve our knowledge of this disorder.

**METHOD**

**Participants**

We worked with an initial sample of 438 participants (69.6% women), aged between 17 and 57 \( (M= 21.3; SD= 4.95) \), all of them university students from 22 different course of studies in five public and private universities. Convenience sampling was used (Grasso, 1999) since the management of tools was performed only in those universities where we got permission from the authorities and consent from teachers.

**Measures**

*Fear of Rejection or Abandonment from the Scale of Preferences and Expectations in Close Interpersonal Relationships* (EPERIC, Fontanil, Ezama, & Alonso, 2013). Originally designed in Spain to assess patterns of adult attachment in close relationships in general. For the present study, a version which was adapted to Argentina (Morán, 2017) from the subscale *Fear of Rejection or Abandonment* was used. This version was validated in local samples through confirmatory factor analysis, with reliability \( \Omega = .84 \).

*Difficulties in Emotion Regulation Scale* (DERS, Gratz & Roemer, 2004). Validated for Argentinian university students by Medrano and Trógolo (2016). This tool assesses deficits and difficulties in different processes involved in emotion regulation. The local version is formed by a structure of four factors, called Impulse Control Difficulties, Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behavior and Lack of Emotional Awareness. The different scales present high internal consistency (\( \alpha \) values ranging from .73 to .88).

*Scale of Expectations of Social Rejection* (Morán, 2017). This self-report tool was designed for adults that assesses expectations of negative outcome in situations of social interaction, has 27 items that are grouped in three factors obtained through exploratory factor analysis and confirmatory factor analysis, which are defined as: Expectations of rejection in situations with already established links \( (\Omega = .88) \), which is formed by nineteen items, Expectations of rejection in situations to establish new links \( (\Omega = .84) \), which is formed by 7 items; and Expectations of rejection in public places and in front of strangers \( (\Omega = .71) \), which is formed by six items.

*Test of Social Anxiety for University Students* (SAT-U, Morán, 2017). This tool was designed for university students to assess the magnitude of anxiety, nervousness or discomfort that people experience in certain social situations. This tool has 27 items grouped in four factors obtained through EFA and CFA, called Social situations with known people \( (\Omega = .86) \); Situations in academic or Workplace settings \( (\Omega = .88) \); Being observed by others in general situations \( (\Omega = .77) \); and Affective-sexual situations \( (\Omega = .81) \).

**Procedure**

An *ex post facto* prospective design with more than a causal link was used, which allows assessment of direct and indirect influence of a set of independent variables over a dependent variable, using a unique group of participants. The management of the tests was collective and during class time, with teachers’ permission in each course. We asked students’ collaboration and consent and told them that their participation was anonymous and volunteer and that the data was confidential. Data collection was performed in different stages with intervals of seven days.
**Data Analysis**

To determine direct and indirect influence of the independent and explanatory variables over the dependent variable we used the technique of structural equation modeling (SEM), based on the multivariate date analysis and we used maximum likelihood estimation method. Parcels were formed in the definition of the model, considering scores obtained in the factors of each scale used and resulting from adding the items that formed them as observable indicators. In the case of the variable FA that is unifactorial, three parcels were established with random assignment of items bearing in mind that factorial loads of the total of reactants are similar.

**Results**

The first step was to perform descriptive analysis of the data. As Table 1 shows, all the observable variables presented appropriate asymmetry indexes and kurtosis, and acceptable reliability coefficients. Secondly, bivariate correlation analysis (Pearson’s r) was performed to verify the magnitude between the variables included in the model. Correlation values between parcels of the variables that varied from .01 to .61, at significance level of \( p \leq .05 \) and \( p \leq .01 \), and non-significant correlations between .10 and .01 were observed. Medium effect size was mostly observed between Fear of Abandonment and Difficulties in Emotion regulation (.20 to .30), Fear to Abandonment and Expectations of Social Rejection (.18 to .33), Expectations of Social Rejection and Difficulties in Emotion regulation (.13 to .27), Difficulties in Emotion regulation and Social Anxiety (.10 to .27), Expectations of Social Rejection and Social Anxiety (.13 to .28), and Fear of Abandonment and Social Anxiety (.11 to .27).

Thirdly, and previously to the test of adjustment to the model, we checked multivariate assumptions to validate the procedure (Tabachnick & Fidell, 2007) analysing the interdependence between residues, homoscedasticity, linearity, normality, and collinearity. Finally, the adjustment of the model of measurement of latent variables included in

<table>
<thead>
<tr>
<th>Table 1. Asymmetry, Kurtosis, reliability coefficients, Mean and Standard Deviation differentiated by gender.</th>
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<tbody>
<tr>
<td>FA1</td>
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<td>FA2</td>
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<td>FA3</td>
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<td>DER1</td>
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<td>SA3</td>
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<td>SA4</td>
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</table>

*Notes: FA= Fear of abandonment; DER1= Lack of emotional awareness; DER2= Non acceptance of emotional responses; DER3= Impulse control difficulties; DER4= Difficulties engaging in goal-directed behaviour; ESR1= Expectations of social rejection in situations to establish new links; ESR2= Expectations of Social Rejection with already known people; ESR3= Expectations of Social Rejection in public places and in front of strangers; SA1= Social Anxiety in social situations with known people; SA2= Social Anxiety in Situations in academic or Workplace settings; SA3= Social Anxiety in being observed by others in general situations; SA4= Social Anxiety in affective-sexual situations.*
the models was specified and proved. The results indicated an acceptable adjustment index of the data ($GFI = .91; \ CFI = .90; \ RMSEA = .06$), and adequate representativeness of latent variables.

Finally, an analysis of the fit indexes of the proposed model was carried out, obtaining satisfactory results ($GFI = .95; \ CFI = .95; \ RMSEA = .05$). In Figure 1, standardized path coefficients and the coefficients of determination ($R^2$) are presented. To determine the effect sizes of the coefficients of determination Cohen’s coefficients $f^2$ (Cohen, 1992) were obtained. According to the table proposed by this author, the effect sizes ($f^2$) .02, .15 and .35 are considered small, medium and large, respectively. In the model of effect size for the following endogenous variables social anxiety ($f^2 = .35$), difficulties in emotion regulation ($f^2 = .28$) and expectations of social rejection ($f^2 = .33$) were large.

Total, direct and indirect effects of the variables included in the model were analysed and bootstrapping was used (Efron & Tibshirani, 1993), to determine confidence intervals (CI) and the significance of total, direct, and indirect effects by means of estimation of confidence intervals corrected to 90% and with 2000 samples chosen at random from the data. The results of this analysis can be observed in Table 2.

The interactions of Fear of Abandonment with Difficulties of Emotion regulation and Expectations of Social Rejection explain 26% of Social Anxiety, which is of

![Figure 1. Standardized regression coefficients of the model.](image-url)

Table 2. Direct, Indirect and Total Standardized Effects of the variables included in the model, Confidence Intervals and Statistical Significance (bootstrap).

<table>
<thead>
<tr>
<th>Effects</th>
<th>Direct Coef</th>
<th>CI 90%</th>
<th></th>
<th>Indirect Coef</th>
<th>CI 90%</th>
<th></th>
<th>Total Coef</th>
<th>CI 90%</th>
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<tr>
<td>Difficulties in Emotion Regulation From Fear of Abandonment</td>
<td>.47**</td>
<td>.37</td>
<td>.57</td>
<td>.00</td>
<td>.00</td>
<td>.47**</td>
<td>.37</td>
<td>.57</td>
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<tr>
<td>Expectations of Social Rejection From Fear of Abandonment</td>
<td>.33**</td>
<td>.22</td>
<td>.42</td>
<td>.12**</td>
<td>.06</td>
<td>.45**</td>
<td>.37</td>
<td>.52</td>
</tr>
<tr>
<td>From Difficulties in Emotion Regulation</td>
<td>.26**</td>
<td>.14</td>
<td>.36</td>
<td>.00</td>
<td>.00</td>
<td>.26**</td>
<td>.14</td>
<td>.36</td>
</tr>
<tr>
<td>Social Anxiety From Difficulties in Emotion Regulation From Fear of Abandonment</td>
<td>.21*</td>
<td>.08</td>
<td>.32</td>
<td>.00</td>
<td>.00</td>
<td>.21*</td>
<td>.08</td>
<td>.32</td>
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</tbody>
</table>

Notes: H= Higher limit; L= Lower limit; *=p <.05; **=p <.000

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considerable explanatory value taking into account that it is a clinical construct whose etiology is complex and multifactorial.

To explore the possibility of the fact that the causal inference and residues of the theoretical model differ according to sex, a multi-group analysis was performed. The sample was divided in Men ($n = 133$) and Women ($n = 302$) and an unrestricted model (UM) where 5 path coefficients vary according to the sample, was put forward. Secondly, a restricted model in path coefficients was established, determining its equality for both groups (RM1). Thirdly, a restricted model in path coefficients as well as in residues, was established, indicating that both are equal for both groups (RM2). The fit values for the three models were optimal (see Table 3). However, the change in chi-square in the RM2 ($\Delta \chi^2 = 15.54; p \leq .05$) was statistically significant, which was not observed in RM1. This suggests that the variable gender moderates the percentage of variance explained for the endogenous variables, but this does not occur with the relations between variables.

To determine the latent variables in which gender moderates explained variance, three restricted models were put forward. In each, the equality of residues was determined for each endogenous variable respectively. The results indicated that only for the variable Expectations of Social Rejection, the difference in $\chi^2$ when compared with the unrestricted model was significant ($8.38; p \leq .05$), which indicates that this variable is mostly explained for women ($R^2 = .33; f^2 = .49$) in comparison with men ($R^2 = .16; f^2 = .19$). With regard to Social Anxiety, even though the difference in terms of gender was not significant, the p value obtained was very close ($\Delta \chi^2 = 3.57; p = .059$) and the difference between the coefficients of determination was considerable ($R^2 = .31, f^2 = .45$ women vs. $R^2 = .15; f^2 = .18$ men), which indicates that in women the model explains higher percentages of variance in this variable. Finally, as for the variable Difficulties in Emotion regulation, for women this variable was better explained ($R^2 = .28; f^2 = .39$) in comparison with men ($R^2 = .10; f^2 = .10$), but the differences were not significant ($\Delta \chi^2 = 1.45; p = .23$). The coefficients of determination for women had large effect size while for men the effect size was medium.

<table>
<thead>
<tr>
<th>Table 3. Fit Index of Restricted and Unrestricted Models according to gender.</th>
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<td>Model</td>
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<tr>
<td>UM</td>
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<tr>
<td>RM1</td>
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<tr>
<td>RM2</td>
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</tbody>
</table>

Notes: $\chi^2$ = Chi-square; df = Degrees of freedom; CFI = Confirmatory Fit Index; GFI = Goodness of Fit Index; RMSEA = Root Mean Square Error of Approximation; CI 90% RMSEA = Confidence Interval 90% of RMSEA; *= $p \leq .05$; ** *= $p \leq .005$.

**DISCUSSION**

The aim of this article was to develop an explanatory model of Social Anxiety in University Students by using Structural Equation Modeling. We put forward a preliminary model where Expectations of Social Rejection and Skills of Emotion regulation were included as predictive variables in the etiology of Social Anxiety. In addition to this, it was put forward that these mechanisms would be influenced by Fear of Abandonment, linked to internal working models the individual builds following patterns of insecure attachment.
The results showed that this model fits satisfactorily the data and that the direct and indirect relationships proposed are significant and with large effect size. This indicates that, as proposed, Fear of Abandonment, linked to internal working models that are built following patterns of insecure attachment, might influence Expectations of Rejection. If this trait is stable in people, it might influence in turn their capacity to regulate their own emotions, creating difficulties in emotional management.

On the other hand, the negative expectations about social interactions are increased if people detect that they are not able to regulate their emotional state. In addition to this, the results show that difficulties in emotion regulation and expectations of social rejection based on fear of abandonment, might predict states of social anxiety in people. In other words, the greater the fear of abandonment, the greater the difficulties in emotion regulation, the expectations of social rejection and social anxiety.

Eng et alii (2001) state that numerous articles have exposed associations between attachment patterns, the interpersonal network in close relationships and social anxiety. Previous experiences and learning history can contribute to the development of social anxiety through the influence over the individual’s mental representation of himself/herself (Spence & Rapee, 2016). Rapee and Heimberg (1997) highlighted the importance of the role of parents in the transmission of expectations of negative evaluation of their children and in the promotion of social inhibition. In this sense, Knappe, Beesdo-Baum, Fehm, Lieb, and Wittchen, (2012) observed that overprotective mothers and parents’ rejection were only present in the sample of adolescents who suffered SAD.

The rejection from people who are important during childhood, is not only a painful situation for children but also lays the foundation for a set of beliefs and expectations of themselves and the others. When a child is rejected, he/she starts to suspect and believe that he/she is different and that he/she doesn’t deserve such acceptance (Erozcan, 2009a). Due to the first expectations of rejection, expressed by parents who are unreliable, unavailable, untrustworthy, and abandonment the children in their affective and vital needs, children develop a maladaptive approach to future interpersonal situations or relationships based on the expectation that they will be probably rejected. This is related to internal working models, and in several studies a significant relationship between rejection sensitivity and attachment styles was shown (Erozkan & Komur, 2006).

Similarly, Erozcan (2009a) found that there is a significant relationship between attachment styles and social anxiety, highlighting that the type of attachment is a key factor that affects interpersonal relationships and determines the levels of social anxiety in individuals. Specifically, insecure attachment contributes to the development of poor relationships with peers and social withdrawal, and that in turn both increase social anxiety. Indeed, the relationships are characterized by hypervigilance, high concern for social rejection and abandonment. This correlates to negative internal working of one’s concept of self (the model of the self) and one’s concept of others (the model of the other) (Fontanil et alii, 2013). These beliefs affect the functioning and generate a predisposition to feelings of social avoidance and social insufficiency.

The relationship between attachment and emotion regulation has also been shown in previous research. Casselman and McKenzie (2015) in their predictive model of aggression, found a direct and significant effect between insecure attachment and difficulties in emotion regulation. In relation to this, the individuals with insecure attachment tend to negate their own emotional needs and perceive the others as untrustworthy people, which limits their capacity to develop truly close relationships.
(Erozcan, 2009b). Mikulincer and Shaver (2003) claim that there is lack of willingness to express negative emotions, which can be interpreted as a behavioural strategy to avoid exposure to interpersonal tension and conflict as well as thoughts and feelings related to potential rejection. The person becomes excessively alert, very sensitive to loss or threat and worried by the probability of negative social situations (Foa, Franklin, Perry, & Herbert, 1996), assuming that the others are inherently critical and will evaluate them negatively (Leary, Kowalski, & Campbell, 1988).

Erozcan (2009a) indicates that this is consistent with anxious attachment, in which this internal working model is activated every time the person faces relevant social situations. According to this model, people with social anxiety tend to avoid expressing their emotions in order to prevent the possible exposure of undesired feelings that might cause social mistakes, embarrassment and rejection. Their main objective is avoid rejection and abandonment, trying to keep at the same time certain degree of connection with the others. Those individuals fear the negative consequences of openly expressing their opinions, for example anger, since these demonstrations can make them look less attractive or vulnerable.

In this sense, in different studies it has been found that adults with SAD remembered that their parents were more controlling, overly protective and with less emotional support (Lieb et alii, 2000; Rapee & Melville, 1997). Furthermore, Anderson, Goldin, Kurita, and Gross (2008) found difficulties in emotion regulation in people with SAD, either at intra or interpersonal level, which indicates that those individuals show a limited repertoire of strategies and it is believed that they have deficits that are relevant for the specific aspects of the disorder to develop. In addition to this, Swain, Scarpa, White, and Laugesen (2015) reported in their studies that emotional dysregulation and social motivation predicted social anxiety significantly. Blalock, Kashdan, and Farmer (2016) also found that people with social anxiety presented difficulties in emotion regulation, and realised that for decades most research carried out about SAD was focused on the recognition and interpretation of the experience of the emotion, without paying attention to how these emotions were regulated.

In this respect, Hayes, Luoma, Bond, Masuda, and Lillis (2006) claim that there are reasons to believe that the predisposition to social anxiety works synergically with the ways in which people help, regulate, express and accept emotional experiences. In concrete, excessive social anxiety can become especially problematic in the presence of chronic and rigid tendencies to manage and hide emotional experiences and the situations which generate them (Kashdan & Breen, 2008). As a matter of fact, people with social anxiety face conflicts of acceptance-rejection between the desire to generate a good impression and be accepted by the others, and they are overwhelmed by beliefs about highly probable and costly rejection, expectations that socializing will cause undesired thoughts, feelings and sensations and that they will be assessed as negative. In turn, these people believe that if they hide their emotional experiences, this will make them more socially attractive and will reduce adverse social outcome to the minimum. In this way, limited resources of self-regulation ultimately get in the way of these chronic attempts to avoid anxiety feelings and to hide their expression, facilitating a self-fulfilling prophecy. In these situations, social performance turns out to be poor and negative evaluation is imminent, that is to say, social anxiety receives further feedback (Vohs, Baumeister, & Ciarocco, 2005).

Fear of negative evaluation is considered central in SAD and can be measured by assessing worry about others’ evaluations, expectations of negative evaluation,
distress caused by negative evaluations, and avoidance of situations that could result in negative evaluation (Teale Sapach, Carleton, Mulvogue, Weeks, & Heimberg, 2015). In general, socially anxious people assume that the others have excessively high norms and underestimate the quality of their own performance, anticipating adverse social outcome, which in turn leads to behavioural, cognitive and somatic symptoms of anxiety. In this way, a vicious cycle becomes established (Blöte, Miers, Heyne, Clark, & Westenberg, 2014). In addition, people assume that the observer-perspective imagery is negative too. (Ranta, Tuomisto, Kaltiala-Heino, Rantanen, & Marttunen, 2014). These findings correspond to those found in the present work, which clearly shows the significant predictive value of expectations of social rejection in social anxiety. The model presented here also showed that this relationship is preceded by the effect fear of abandonment has over expectations people build.

Erozcan (2009a) found significantly higher levels of sensitivity to rejection in female university students that have frightened disorganized attachment and in students that experienced authoritarian parenting practices when compared with the rest of participants. In addition to this, a significant relationship between attachment styles and rejection sensitivity was shown. The author explains that significant primary relationships with the others can be on a continuum between acceptance and rejection, and this even can generate impact even later in life, for example, in adolescence. When the adolescents have the feeling of not being accepted or appraised, excluded, evokes negative emotions and can lead to antisocial reactions such as aggression and social withdrawal. On the other hand, Casselam and Mc Kenzie (2015) showed that insecure attachment and emotional dysregulation could be important mechanisms through which the perceptions of parental rejection behaviour influence antisocial behaviour in adulthood.

Given the fact that different studies showed that one of the risk factors of social anxiety is gender (Furmark, 2002; La Greca & López, 1998; Turk et alii, 1998), in the present study we studied if these differences were present in the model proposed. We observed that the model tested explained significantly higher percentage of variance of social anxiety and expectations of social rejection in women (31% and 33% respectively) compared to men (15% and 16% respectively), which states that indeed the explanatory power of the model presented is higher if it is complemented with the effect of gender. These results match with the ones obtained in other studies where the role of gender in difficulties in interpersonal relationships was analysed.

For example, Erozcan (2009a) found in university students that women presented significantly higher rejection sensitivity than male students. This was also evidenced in studies with adults in general (Erozkan, 2005; Murray, Holmes, & Griffin, 2001; Murray, Rose, Bellavia, Holmes, & Kusche, 2002) where it was found that women have greater expectations of rejection, a tendency to perceive its signals faster and to have a more extreme reaction to rejection than men. Xu et alii (2012) found that women with SAD have a higher number of feared social situations, more fears related to professional situations, more levels of psychosocial functioning, while men are more likely to be fearful in affective-sexual situations. The authors explain that differences in learning patterns, the roles of gender and hormone influences and the vulnerability to factors of stress and adversity in childhood (Molnar, Buka, & Kessler, 2001) can contribute to these differences in gender.

Despite the differences in gender found in this study, it could be observed that the set of relationships between the variables proposed was kept constant throughout the sample, which allows stating that people who suffer higher levels of social anxiety
have more difficulties to regulate their emotions and their expectations of rejection are greater, a product of fear of abandonment maintained by internal working models constructed on the basis of insecure attachment in childhood.

There are limitations that must be taken into account for the interpretation and generalization of the results of this study. In particular, the method of sampling used was non-probabilistic. That’s why, even though this sampling can be used when dealing with participants with heterogeneous characteristics, we cannot ignore that there is risk involved in the fact that the individuals selected may not be representative of the group. However, the feasibility of applying methods of probabilistic sampling in the group studies is limited. So, certain precautions were taken to minimize the probability of biases, such as including public and private universities, different courses of studies and students at different years. On the other hand, it would be convenient to use a sample with more cases, to replicate the analysis following the sample criteria demanded by Jackson (2003), which indicates a proportion of between 10 and 20 cases per parameter.

Thirdly, we did not carry out analysis with clinical samples. Instead, we worked with university groups in general, assuming that the nature of the variable under scrutiny does not differ under this condition. Furthermore, it is important to take into account that limitation of the use of clinical groups to study etiology processes in patients with anxiety disorders is the frequent comorbidity between the different anxiety disorders and with other psychological problems, such as depression (Tinoco González et alii, 2015). The previous study on specific anxiety disorders suggests that the presence of other disorders (for example, Borkovec, Alcaine, & Behar, 2004) might have a significant impact in physiological and subjective indexes of fear (McTeague & Lang, 2012).

In spite of the limitations mentioned above, the results obtained in the present study suggest an integral model of evolutive and emotional theoretical developments of social anxiety, with valid conceptual structure to explain partly the processes that contribute to the development of this disorder.

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