

## Adolescent Perceptions of Stress and Future Expectations<sup>1</sup>

Cybelle Bezerra Sousa Florêncio  
*Universidade Federal do Pará,  
Belém-PA, Brazil*

Simone Souza da Costa Silva  
*Universidade Federal do Pará,  
Belém-PA, Brazil*

Maély Ferreira Holanda Ramos  
*Universidade Federal do Pará,  
Belém-PA, Brazil*

**Abstract:** Adolescence has been described as a developmental phase marked by challenges, tensions, and uncertainties that can generate stress and lower adolescents' future expectations. This study aims to describe adolescent perceptions of stress and future expectations. It is a mixed-methods study of 17 high school students, selected from a sample of 295 adolescents, aged 14 to 18 years, who are pupils in a private school system in the metropolitan region of Belém do Pará. The Stress Scale for Adolescents was used, in addition to focus groups. The results indicated higher stress levels in female adolescents. The participants who had no stress had good family relationships and well-defined future expectations. However, the adolescents who had stress associated their family context with stressors and had no expectations for the future.

**Keywords:** adolescents, stress, expectations, family

## Estresse e Expectativas de Futuro na Percepção de Adolescentes

**Resumo:** A adolescência tem sido descrita como uma fase do desenvolvimento marcada por desafios, tensões e incertezas que podem gerar, além de estresse, o rebaixamento das expectativas futuras no adolescente. Este estudo tem por objetivo descrever a percepção do estresse e as expectativas de futuro por adolescentes. É um estudo misto realizado com 17 estudantes do Ensino Médio, selecionados de uma amostra de 295 adolescentes, com idades entre 14 e 18 anos, alunos de uma rede particular de ensino, na região metropolitana de Belém do Pará. Foi utilizada a Escala de Estresse para Adolescentes e um grupo focal. Os resultados indicaram níveis de estresse mais alto em adolescentes do sexo feminino. Os participantes que não apresentaram estresse revelaram possuir um bom relacionamento familiar e expectativas de futuro bem definidas. No entanto, os adolescentes que apresentaram estresse associaram o contexto familiar a fatores estressores, bem como revelaram ausência de expectativas quanto ao futuro.

**Palavras-chave:** adolescentes, stress, expectativas, família

## El Estrés y las Expectativas Futuras en la Percepción de los Adolescentes

**Resumen:** La adolescencia ha sido descrito como una fase de desarrollo marcada por desafíos, tensiones e incertidumbres que podrían generar, además de estrés, disminución de las expectativas futuras adolescentes. Este estudio tiene como objetivo describir la percepción del estrés y las expectativas futuras para los adolescentes. Se trata de un estudio cuantitativo / cualitativo de diecisiete estudiantes de escuela secundaria, seleccionados a partir de una muestra de 295 adolescentes de edades comprendidas entre 14 y 18 años, que frecuentaban un sistema escolar privado en la región metropolitana de Belém do Pará. La Escala de Estrés para Adolescentes fue utilizada y se llevó a cabo un grupo de enfoque. Los resultados indicaron mayor estrés en mujeres adolescentes. Los participantes que no tenían estrés demostraron que tienen buenas relaciones familiares y expectativas futuras bien definidas. Sin embargo, adolescentes estresados asocian los antecedentes familiares a los factores de estrés y revelaron que no tienen expectativas sobre el futuro.

**Palabras clave:** adolescentes, estrés, expectativas, familia

Adolescence is an essential period of life in human development, providing different possibilities for dynamic exchanges between the individual and his/her diverse contexts (Steinberg & Lerner, 2004). It is a phase of great

changes that begins at puberty with biological changes and culminates in social, professional, and economic integration (Schoen-Ferreira, Aznar-Farias, & Silveiras, 2010).

Over the past 30 years, there has been an increase in research on human development; scientific interest in adolescence is a response to the realization that the information generated from these studies can contribute to actions that promote the healthy development of this population (Steinberg & Lerner, 2004). Given the diverse transformation and adaptation processes that are related to human development, it is possible for adolescents to have stress in any situation due to the unique vulnerability of this

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<sup>2</sup> Correspondence address:

Cybelle Bezerra Sousa Florêncio. Rua Raimundo Bastos da Silva, 3606, Apto 1701 – Candelária, Natal-RN, Brazil CEP: 59064610. E-mail: cybelle.flor2@gmail.com

period (Justo & Lipp, 2010; Tricoli & Lipp, 2011).

Regarding stress, Folkman (2013) emphasizes that this phenomenon is contextual and involves a transaction between the characteristics of the person and the environment; it is liable to change over time, perhaps as a result of the individual's evaluation of a personally meaningful situation. Kristensen, Schaefer, and Busnello (2010) argue that stress develops when the demands of certain situations are perceived as being beyond the resources available to overcome them, causing the individual to be unable to resist and create strategies to address them.

Using a sample of 368 Chinese students, Liu and Lu (2012) identify positive correlations among academic stress, depression, and the feeling of a lack of achievement. Moksnes, Moljord, Espnes, and Byrne (2010) find relationships between perceived stress and peer pressure, home life, school performance, and adult responsibility, which all raise stress levels in a sample of 1,508 adolescents.

Thus, stress can interfere with this population's development, given the psychological vulnerability that is inherent to this period of life. In addition to causing an impact on adolescents' health and wellness (Marques, Gasparotto, & Coelho, 2015), stress can affect their future expectations and hope (Gustafsson, Skoog, Podlog, Lundqvist, & Wagnsson, 2013).

Hope is considered a cognitive force that contains information and goals. It gives an individual energy, often described as "will," which functions as a motivational quality. It offers a significant advantage against stress (Folkman, 2013), and encouraging it may be important in reducing the likelihood of ailments such as stress and burnout syndrome (Gustafsson et al., 2013).

There is a direct relationship between hope and future expectations; hope is used to envision future goals and to propose effective actions to achieve the goals that are established in the present, playing an important role in positive development (Callina, Johnson, Buckingham, & Lerner, 2014). Adolescents plan for the future using concepts and experiences from the present, and therefore, they need hopeful thoughts to try to accomplish these plans, encouraging their positive development (Burrow, O'Dell, & Hill, 2010).

Given the contextual and transactional nature that is postulated for stress processes, the development model of Bronfenbrenner (1996) seems appropriate for investigating them because he understands that a basic condition for studying human development is investigating the dynamic interplay between processes and the characteristics of people, contexts, and time. Process, according to the bioecology of human development, represents the most enduring interactions and the closest relationships (parental relationships, romantic relationships, etc.). They are the wheels of development that allow individuals to understand the world, take their place in it, and transform it (Tudge, Mokrova, Hatfield, & Karnik, 2009). Family relationships are investigated by Gerard and Booth (2015) from the perspective of adolescents. Their data indicate an association among family ties, hope, and academic aspirations.

For Bronfenbrenner (1996), a person's characteristics partially structure his/her developmental trajectory over time. This author describes a person as a component that consists of Force (temperamental differences, such as self-efficacy, hope, and resilience), Resources (psychological deficiencies or skills), and Demands (personal qualities). Self-esteem, for example, is a variable that is identified by Moksnes et al. (2010) as a force that has a protective role in encouraging positive emotional states.

Bronfenbrenner (1996) considers context based on the different contextual levels (micro-, meso-, exo-, and macrosystems) and emphasizes the nonobjective nature of environments. In this sense, the researcher needs access to reality as it is perceived by the subject. Callina et al. (2014) present a study that demonstrates this relationship. Using a sample of 1,432 adolescents, these authors seek to identify the relationship between these young people's trust in their parents and their social contribution. The authors conclude that interactions in the family environment can positively influence future expectations, leading adolescents to contribute to their community in leadership positions and providing services.

Studies of adolescence are inscribed in a fixed period of time. This temporal inscription is critical for Bronfenbrenner, who believes that a basic condition of Developmental Psychology is that the time variable is considered in its studies. An analysis of time allows changes and continuities and their influences throughout the life cycle to be observed (Tudge et al., 2009). For example, in a longitudinal study of 1,311 adolescents, Schmid, Phelps, and Lerner (2011) find that hopeful expectations of the future that are established during adolescence are confirmed over time as strong predictors of the young people's positive development.

Considering the components of the bioecological model and given the complex nature of the relationship between stress and future expectations in adolescence, Bronfenbrenner's proposal can help organize the elements that comprise adolescent perceptions of these variables. In this sense, the present study aims to describe adolescent perceptions of stress and future expectations.

## Method

A cross-sectional, descriptive, and exploratory mixed-methods study was developed. The quantitative/qualitative approach moved it closer to reality, enabling a particular combination of theory and data. Using these approaches together allowed the phenomenon to be described in a complementary manner.

## Participants

The study initially included the participation of 295 adolescents, students at high schools in the same religious private school system, located in the city of Belém do Pará. This sample was calculated from a population of 651 students, using random probability sampling. The following inclusion criteria were considered: being 14 to 18 years of age; being a

high school student; and having signed the Free and Informed Consent Form. The selection of the 17 adolescents who participated in the two data collection phases is described in the Procedures section. These participants formed two groups: (a) NS, students who had no stress, with 10 (ten) individuals, of which eight were male and two were female; and (b) S, students who had stress, formed by 7 (seven) individuals, of which two were male and five were female.

## Instruments

Three instruments were used, two for the quantitative phase and one for the qualitative phase, namely: (a) a socio-demographic questionnaire, (b) the Stress Scale for Adolescents (*Escala de Estresse para Adolescentes - ESA*), and (c) a script – focus group.

*Socio-Demographic Questionnaire.* This instrument was developed by the first author to obtain personal information such as sex, age, place of birth, educational level, and other details that help describe the participants and their needs.

*Stress Scale for Adolescents (Escala de Estresse para Adolescentes - ESA)* (Tricoli & Lipp, 2011). It is an evaluation instrument for verifying the presence of stress and its intensity. The ESA is a scale composed of 44 items that aim to identify how often stress symptoms appear based on responses in the following four areas: psychological, cognitive, physiological, and interpersonal. It uses a five-point Likert scale, with ordinal numbers ranging from 1 to 5, to mark the intensity with which the adolescent experiences the stress reactions indicated in the items. The ESA was standardized and validated in adolescents from cities in the state of São Paulo (SP), Campo Grande (MS), and João Pessoa (PB), with a Cronbach's alpha coefficient of 0.9394 for frequency (symptoms) and 0.9398 for intensity (phase) (Schermann et al., 2014), and it has appropriate psychometric properties.

*Script of Questions for the Focus Group.* Developed by the first and third authors based on the bioecological perspective, it consists of seven open-ended questions, six related to the perception of stress and a final question related to future expectations: To you, what is stress?; What reasons are there for a person to be stressed?; Do you think you are stressed? What causes you stress and why? Which of the following options most influence you when you feel stressed: relationships, academic success, or personal characteristics? What calms you down? What do you expect of the future?

## Procedure

**Data collection.** A total of 295 participants initially responded to the socio-demographic questionnaire and the ESA (Tricoli & Lipp, 2011). The questionnaires were applied collectively at schools and took between 25 and 30 minutes to complete. Then, 98 adolescents who participated in the first part of the study, all students from the afternoon session at the two schools that offer high school education during this session (that is, 65 participants from the first school and 33 from the second school), were invited to the

focus group by the first author and the school psychologist following a classroom visit. The afternoon session limitation was because the sponsoring institution provided authorization only for this time of day. Of the 37 students who accepted the invitation, 17 were selected, all of whom presented the Consent Form for participating in the activity, signed by their parent or guardian. The focus group was conducted in a classroom provided by the first and larger school because 12 participants were students at this school and the other 5 were students at the second school; the latter were driven to the site by school employees.

Used in qualitative research, the focus group is a collection technique in which the researcher interacts with the participants to collect data from a discussion concerning directed questions, providing an opportunity to investigate the participants' perception of a proposed topic through group interaction (De Antoni & Koller, 2000). The session with the focus groups was divided into four stages, with a structure similar to that described in De Antoni and Koller, namely: (a) the first stage – the presentation of the objectives and procedures for each step of the focus group; (b) the second stage – a group dynamics technique to encourage relaxation and introduce the topic of “Stress and Future Expectations”; (c) the third stage – a discussion of the topic based on the seven proposed questions; and (d) the fourth stage – an evaluation of the feelings that emerged when discussing the topic. The groups were moderated by the first author, with support from the institutional system's own school psychologist. The session, which lasted 25 minutes for the focus group with NS adolescents and 45 minutes for the group with S adolescents, was recorded using a recording application on three devices placed at three specific points in the environment to ensure audio quality. After the session, the conversations were transcribed using a word processor and subjected to analysis.

**Data analysis.** In the quantitative analysis stage, measures of central tendency were obtained (Dancey & Reidy, 2006). The arithmetic mean was used to: (a) identify the individuals with and without stress from the 295 pre-selected adolescents; and (b) characterize the 17 students in the final sample, using socio-demographic data (age, sex, school year). The software used was SPSS version 20.

To analyze the data on adolescent perceptions of stress and future expectations, which were based on the participants' statements, the choice was made to apply Content Analysis, using NVivo 10 software. Thus, the following phases, based on the stages of Content Analysis (Bardin, 2006) and applied using NVivo 10 software (Lage, 2011), were performed: (a) Pre-analysis – the organization and management of data sources (participants' statements) in the software; (b) Exploration of the material – the coding of the sources; and (c) Treatment of results, inference, and interpretation – the organization, visualization, and interpretation of the coding results. The data categorization or coding (creation of nodes, codified information) was guided by the Bioecological Model of Human Development (Bronfenbrenner, 1996), focusing on its core concepts of

person, process, context, and time.

The codified data were visualized through the cluster analysis technique using the attribute-value available in NVivo 10 software. The Jaccard coefficient was chosen because it groups elements by similarity using binary data, where 1 = presence and 0 = absence. In this specific case, categorical characteristics (attributes) were inserted to serve as common elements between certain nodes, forming clusters. Another technique used, through NVivo 10 software, was grouped search analysis, which enabled the visualization of the nodes (categories) associated with the sources (excerpts from the participants' statements).

### Ethical Considerations

The project was submitted to the Tropical Medicine Ethics Committee at the Federal University of Pará (Universidade Federal do Pará), according to resolution 466/12 of the National Health Council. Data collection began only after this Committee had issued a favorable opinion under CAAE no. 40645414.0.0000.5172 and the participating institutions had given their authorization. After being informed about the confidentiality of information and identity, the objectives, and any possible risks and benefits, either the participants or one of their parents or guardians (if they were a minor) signed the Free and Informed Consent Form. To ensure the participants' anonymity, they were given fictitious names, and all identities were kept confidential.

## Results and Discussion

### Characteristics of the Participants

A total of 295 adolescents who responded to the ESA initially participated in this study. The results obtained with this instrument allowed the participants to be classified into two groups: stressed and not stressed. The data generated from applying the ESA were analyzed by calculating the means of the symptoms and stages of stress in the 295 pre-selected participants. The adolescents considered to have significant stress were those whose mean scores in the symptoms group were above the cutoff point, 3.11 for girls and 2.64 for boys, established in the manual for this instrument (Tricoli & Lipp, 2011). Table 1 contains information on the gender, age, school year, and housing of the adolescents who participated in the study.

Table 1

*Descriptive Analysis of the Quantitative Data*

Characterization of the Participants	Total	(%)
<b>Gender</b>		
Male	127	43.05
Female	168	56.95
Total	295	100.00
<b>Age (<math>M = 15.90, SD = 1.21</math>)</b>		
14 years old	43	14.58
15 years old	73	24.75
16 years old	80	27.11
17 years old	68	23.05
18 years old	31	10.51
<b>School year</b>		
1 <sup>st</sup> year	120	40.68
2 <sup>nd</sup> year	90	30.51
3 <sup>rd</sup> year	85	28.81
<b>Marital status of parents</b>		
Married	173	58.64
Separated	75	25.42
Single	31	10.52
Domestic partners	16	5.42
Total	295	100.00
<b>Stress</b>		
Males	25	28.60
Females	64	71.40
Total	89	100.00

The average age of the adolescents was 15.90 years ( $SD = 1.21$ ). Most of these participants (40%) were students in the 1st year of high school, lived with their parents, and were female. All races were represented: white (28%), brown (60%), black (6%), asian (4%), and indigenous (1%). Most of the adolescents had parents who were legally married (59%). In terms of the focus groups' composition, the group with stress was composed of five girls and two boys, with an average age of 16 years and greater representation from the 3rd year (43%); the group with no stress had two girls and eight boys, with an average age of 15 years and greater representation from the 2nd year (60%).

The descriptive analysis of the data obtained from the sample of 295 participants indicated that 30% of the adolescents had stress. Using correlation analysis between the ESA results and the gender variable, the results indicated a higher incidence of stress in girls (38%) than in boys (20%), with  $\chi^2 = 16.56$  ( $p = 0.003$ ). This rate was also repeated in the focus groups, with a higher incidence of girls

(71%) in the focus group with stress. This result is consistent with the studies presented by Liu and Lu (2012), Moksnes et al. (2010), and Schraml, Perski, Grossi and Simonsson-Sarnecki (2011), who indicate a higher rate of stress in girls than in boys.

**Adolescent Perceptions of Stress**

To study stress in adolescents, macro-categories (attributes) were constructed to serve as connector elements for forming groups of categories, classified under time, process, context, and person, based on the bioecological model of human development (Bronfenbrenner, 1996). When the nodes or sub-nodes created in NVivo 10 receive attributes, they are called Cases; each category is thus a Case because it was associated with a characteristic. Four attributes were

created to qualify Cases in NVivo 10 (time, process, context, person). After the attributes were constructed, an attempt was made to associate them with the Cases involved in the study to then perform a cluster analysis using the attribute-value. The Cases were thus grouped according to their associations with the aforementioned attributes. As shown in Figure 1, the cluster analysis using the attribute-value, which was applied to the Cases that are representative of the variables explored through the verbalizations of those investigated, resulted in the following four groups: (a) Time – with three associated nodes, (b) Person – with three nodes, (c) Context – with five nodes, and (d) Process – with four nodes.

The clusters and their related nodes were formed considering the participants of the two groups in this study (NS – not stressed; S – stressed). The description that follows includes only the most frequent categories for each group.

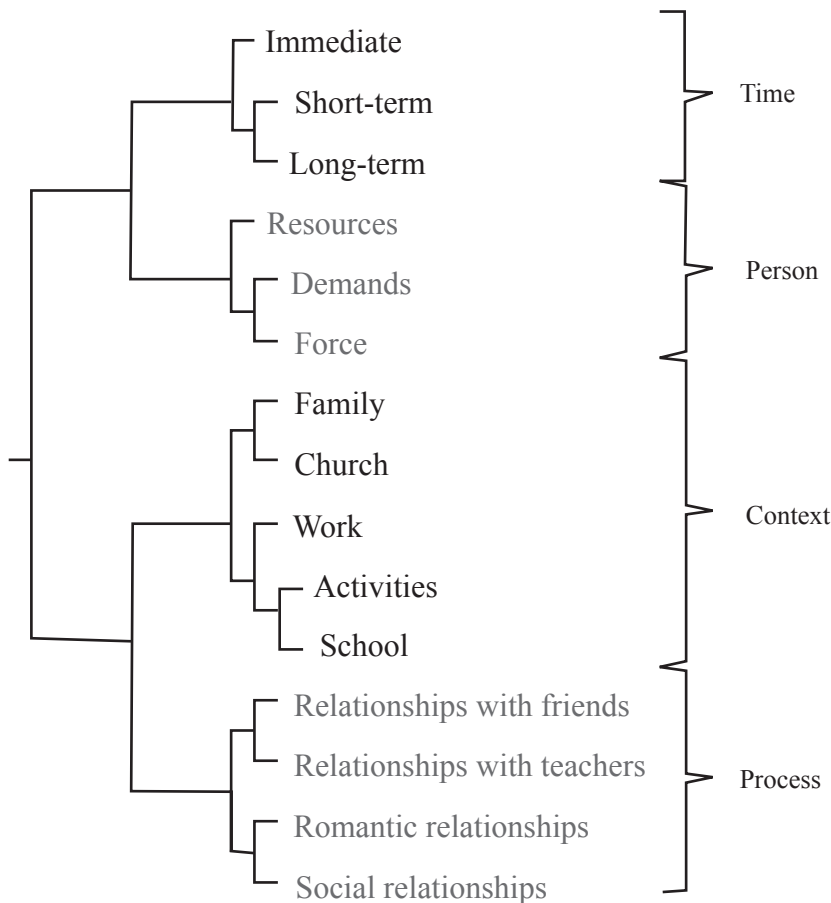


Figure 1. Dendrogram resulting from the attribute-value cluster analysis.

**Group of Adolescents with Stress**

**Time.** Regarding the group of participants with stress, the time macro-category was structured as follows: immediate (one statement), short-term (three statements, three participants) and long-term (one statement). Note that the short-term category was the most prominent among the participants and refers to time intervals of days and weeks,

which can be observed in the statement “One reason for stress is a daily routine without any rest” (Carlos, 16 years old).

According to these adolescents’ perception of time and the activities performed throughout life, the group expressed the idea that a lack of time can contribute to stress. In a study with college freshmen, Calais et al. (2007) find that a lack of time for academic activities, for example, acts as a stressor.

**Person.** A total of 12 statements expressing personal

attributes were recorded: demand (four occurrences, three people), force (two occurrences, two people), and resources (six occurrences, four people). Resources, which were the most prominent, are related to the ability, experience, and knowledge that are necessary to perform proximal processes during adolescence. This concept can be identified in statements such as “I think that feeling incapable is a reason for my stress” (Elisa, 18 years old).

The perception of incapacity is presented as a predictor to justify stress, and this adolescent indicates that she has this characteristic. Based on a multiple regression analysis, Moksnes et al. (2010) show the importance of the person components, presenting very significant associations between stress and peer pressure, school performance, low self-esteem, and adult responsibility.

**Context.** Adolescents with stress referenced the negative influence of context with a total of six verbalizations. The family context received the largest number of speech occurrences (4 statements, 4 people), and the school context had two occurrences (two people). The others were not cited by the adolescents in this group. The following example references context: “At home, I can say that it is my father who causes me stress. He is out all day and doesn’t give me any attention. My sister only gives me work, and my mother doesn’t care about me” (Bianca, 14 years old).

The family context is presented by the participants in this group as a stress-generating factor due to relationship difficulties. In a study of 330 adolescents, Kristensen, Leon, D’Incao, and Dell’Aglia (2004) identify that compliance with parents’ orders and fights among siblings, which occur within the family context, appear as major stressors for adolescents.

**Process.** Several reports of adolescents in this group were negative with regard to relationships with their family (five statements, five people), friends (one statement), and romantic partners (one statement). The family relationships category, which obtained the largest number of references, can be identified in the following report: “In my case, my relationship with my family is pretty bad. [...] I don’t feel comfortable being with everyone, with my family [...] I prefer to be alone in my room” (Carlos, 16 years old).

The adolescent views the family relationship as stressful and expresses the idea that to feel better, he should be alone. This behavior was observed in other adolescents in the group, indicating that, for these individuals, stress in family relationships also generated isolation. In a quantitative study of 100 adolescents, Justo and Lipp (2010) investigate the influence of parental responsiveness (which refers to bi-directional communication) on adolescent stress. There is a significant correlation between responsiveness and stress ( $r = -0.33, p = .000$ ), indicating that the lower the responsiveness of parents in relationships with their children, the greater the stress experienced by their children.

### Group of Adolescents with No Stress

Analyzing the participants’ statements, it can be observed that the adolescents did not refer to the last three categories (person, context, process) as sources of stress.

**Time.** In the time cluster, the statements by the participants in the focus group with no stress indicated three thematic categories: immediate (one statement), short-term (four statements, four people), and long-term (five statements, five people). In this group, the most prominent category was long-term, which refers to the adolescent’s life history and his/her expectations of changes and the occurrence of events that may influence his/her development during the life cycle, which can directly impact his/her life plan and future prospects (Callina et al., 2014; De Antoni & Koller, 2000). Expectations about future plans for a profession and future professional activities may interfere with development. This aspect can be observed in the following report: “I think that academic success and thoughts about the future make a person more stressed” (Eva, 14 years old).

Although she is not referring to herself, the adolescent’s statement demonstrates the concept that future expectations may cause stress. Comparing the statements of the two group’s participants on time, it is clear that the adolescents with no stress emphasized the long-term category whereas the participants with stress emphasized the short-term, possibly because they were experiencing stressful events in the present. Bronfenbrenner (1996) argues that the passage of time and the manner in which it is perceived in historical terms have effects on people and the context of which they are a part.

**Person.** The second cluster observed in the dendrogram concerns the Person macro-category, which refers to the individual’s personal characteristics. This cluster generated three categories, also present in the bioecological model, resources, demands, and force, with one statement recorded for each.

**Context.** The context grouping refers to the four environmental levels of bioecological theory (micro-, meso-, exo-, and macrosystems). The following five categories were generated, in which 27 references were recorded and distributed in the contexts: school (seven statements), family (7), activities (9), work (1), and church (3). The greatest emphasis was placed on the activities category, as illustrated in the following report: “Music is relaxing, and it calms me down. Practicing martial arts also calms me down” (Davi, 15 years old).

The activities performed in differentiated micro- and mesosystems were perceived by this group as a protective factor against stress. Of the 27 references, 16 statements (seven people) indicated that context is a facilitator of their well-being. The nine references (six people) to the activities context also indicated that it is a context that brings calm. In a study of 594 participants, Esculcas and Mota (2005) indicate that structuring adolescents’ free time with physical activities and leisure encourages their positive development.

**Process.** The last cluster, called process, is related to the interpersonal (proximal) relationships that are experienced by the individual in different contexts. The following four categories were generated, and all were cited by the adolescents who did not have stress: relationships with friends (two statements, two people), family relationships (three statements, three people), relationships with teachers (one statement), and romantic relationships (two statements, two people). Note the emphasis on the family relationships

category, which can be observed in the following report: “I like staying with my sister. I feel good with my sister” (Fernanda, 15 years old).

Both groups emphasized the family relationships category but with different perceptions of these relationships. The unstressed participants expressed feelings of positivity, whereas the stressed adolescents demonstrated negative feelings. In a study of 675 adolescents, Gerard and Booth (2015) argue that parental support has a protective function against behavioral problems for students with low academic expectations and that an adolescent’s hope and connection to

school are negatively associated with depression. Adolescent perceptions of family interactions have an effect on interpersonal dimensions.

### Future Expectations

To study the participants’ perceptions of future expectations, the group coding analysis technique was applied to identify the categories (nodes) associated with Future Expectations (Figure 2). It is important to note that the nodes that emerged from the participants’ statements apply to both

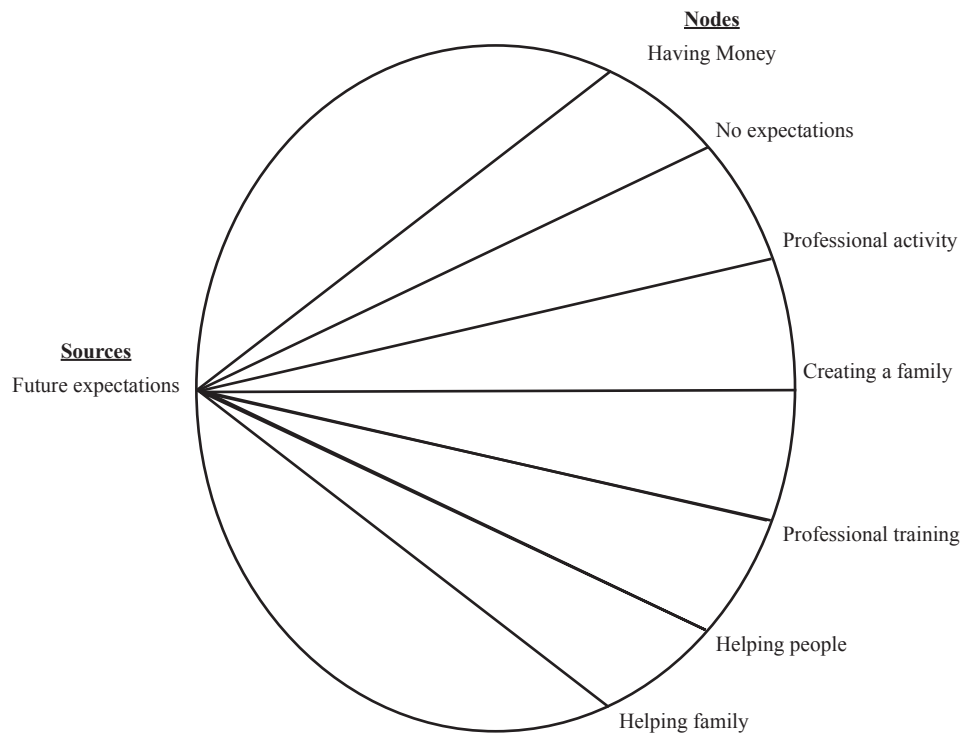


Figure 2. Representation of the grouped coding between the Future Expectations source and the categorical nodes.

groups of adolescents investigated in this study.

**Group of stressed adolescents.** Only the following three categories were referenced in this group: having money (one statement), professional training (two statements, two people), and no expectations (five statements, five people), with the latter being the most prominent category. Most of the adolescents in this group had no goals, indicating a lack of hope. This idea can be illustrated by Eliza’s report: “I don’t think very much. I always tried to have expectations, but nothing ever worked out. I don’t even know what to expect of the university entrance exam. I’m lost in the middle of a shootout” (Eliza, 18 years old).

In a study of 134 adolescents, Yarcheski, Mahon, and Yarcheski (2011) indicate that high stress levels are significantly associated with low levels of hope ( $r = -0.55, p < 0.001$ ). Gustafsson et al. (2013) corroborate these findings with a study of 238 Swedish athletes in which individuals with high levels of hope experience less stress. The authors also warn that encouraging hope may be important in reducing the

likelihood of stress syndromes, such as burnout; they agree with Folkman’s (2013) arguments about the importance of hope and its protective value against stress. De Antoni and Koller (2000) warn that a lack of future expectations may be associated with risk factors.

**Group of adolescents who had no stress.** The occurrences of nodes referring to future expectations in this group were the following: having money (one statement); professional achievement (four statements, four people); creating a family (five statements, five people); professional training (five statements, five people); helping people (one statement); and helping family (four statements, four people). Note that two categories (nodes) were referenced most often, both with five occurrences: creating a family and professional training. The creating a family category reveals the future desire to marry and have children. This expectation can be identified in the following report: “I want to have my own family. I want it so much!” (Diana, 15 years old).

Another category emphasized by this group was

professional training. Note that the adolescents with no stress demonstrated that they already had certain professions in mind. Regarding this point, José (17 years old) stated the following: “I want to get a PhD in the area of computer science. I want to develop machines.” The statements from these adolescents suggest that the absence of stress facilitates future choices, giving an adolescent more certainty when he/she is faced with these choices. Alternatively, having a defined choice in the professional field protects the adolescent from stress in this period of uncertainty about the future.

It is important to note that all of the participants spoke clearly and objectively about their choices of occupation or areas of study for university. Although there is no evidence that occupational choices are related to the absence of stress, it is possible to corroborate this phenomenon with the study by Stoddard and Pierce (2015), who confirm the hypothesis that higher levels of hope and purpose predict more positive future expectations.

Regarding future expectations, the group of stressed individuals showed no expectations, whereas the group of unstressed adolescents had well-defined goals. Although the goal of creating a family appeared frequently in the group of unstressed adolescents, this objective did not seem to be important for stressed adolescents because it was not noted by any of the participants in their verbalizations.

Family relationships appear as a source of support for the unstressed group, unlike the stressed group, which viewed family relationships as source of stress, confirming that the quality of family relationships produces stressor effects on interpersonal dimensions (Gerard & Booth, 2015; Justo & Lipp, 2010).

This study investigated adolescent perceptions of stress and future expectations in a group of high school students, using quantitative and qualitative data. The quantitative data obtained through correlation analysis with the  $X^2$  test showed higher levels of stress in girls than in boys. The qualitative analysis, conducted using two focus groups, revealed differentiated perceptions among the participants. The focus group of adolescents with no stress showed evidence of a good relationship with their family and defined future expectations. The focus group of adolescents with stress reported conflicts in family relationships, configuring this context as a stress generator, and a lack of objectives and strategies to achieve goals for the future.

This study presents some limitations, such as the fact that it was conducted with students from a single religious private school system, which gives the sample characteristics that are not shared with other segments of the adolescent population. Another limitation is that it was not possible to balance the NS and S groups in terms of factors that can influence stress, such as gender and school year. For example, the 3<sup>rd</sup> year of high school, which is more represented in the S group, is a time of great pressure for the adolescent. In this sense, it would be interesting in future studies to create focus groups exclusively with students from this level. It is also possible to think about mixed S-NS focus groups, with the same participants on two different occasions, to explore the possibility of changes that result from exposing the adolescents to perspectives that are

different from their own. Future studies may also explore stressors in vulnerable communities and those presenting risks to development and replicate the study in a comparative manner with students from different contexts, such as public and private schools or rural and urban areas.

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- Cybelle Bezerra Sousa Florêncio has a master’s degree in Behavioral Theory and Research from the Federal University of Pará.*
- Maély Ferreira Holanda Ramos holds a PhD in Psychology (Behavioral Theory and Research) from the Federal University of Pará.*
- Simone Souza da Costa Silvais a professor at the Federal University of Pará.*

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