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**DESENVOLVIMENTO E VALIDAÇÃO DE UM INSTRUMENTO
DE PESQUISA PARA AVALIAR O ESTRESSE
INTERPESSOAL**

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**DESENVOLVIMENTO E VALIDAÇÃO DE UM INSTRUMENTO DE
PESQUISA PARA AVALIAR O ESTRESSE INTERPESSOAL**

Dissertação apresentada à Faculdade de Odontologia de Araçatuba da Universidade Estadual Paulista (Unesp), para obtenção do título de "Mestre em Odontologia" - Área de Concentração Estomatologia

Orientador: Professor Associado Daniel Galera Bernabé

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“O período de maior ganho em conhecimento e experiência é o período mais difícil da vida de alguém.”

- Dalai Lama

Sousa VI. Desenvolvimento e validação de um instrumento de pesquisa para avaliar o estresse interpessoal [dissertação]. Araçatuba: Faculdade de Odontologia de Araçatuba da Universidade Estadual Paulista (Unesp); 2024.

RESUMO

Pessoas com alta sensibilidade à rejeição interpessoal (SRI) podem ter emoções negativas desencadeadas por muitos eventos sociais. A intensidade do sentimento de rejeição pode levar a comportamentos relacionados à dificuldade de adaptação que têm sido reconhecidos como prejudiciais à saúde física e mental. Na literatura existem alguns instrumentos utilizados para mensurar a SRI, porém eles não estão focados nas experiências emocionais subjetivas causadas pelo sentimento de rejeição. Este estudo se propõe a desenvolver e validar a Escala de Sentimento de Rejeição da UNESP (ESRU), instrumento para mensurar o sentimento de rejeição derivado das relações interpessoais na população geral brasileira. **Métodos:** Os itens da ESRU foram elaborados com base em um modelo teórico e revisados por um painel de especialistas. A validação do ESRU exigiu um total de 30 voluntários. Foi realizada análise fatorial exploratória, seguida de seleção fatorial e análise fatorial confirmatória. A consistência interna e a confiabilidade dos itens foram avaliadas pelo coeficiente alfa de Cronbach. **Resultados:** Na análise exploratória foram extraídos quatro fatores. O cálculo do alfa de Cronbach identificou valor satisfatório de consistência interna de 0,9. A análise fatorial confirmatória indicou valores de GDI=0,5062 e RMSEA=0,1919 (IC95% = 0,1711 - 0,2126). O valor do GDI indicou que os fatores obtidos foram razoáveis e o RMSEA acima do esperado. **Conclusão:** A Escala de Sentimento de Rejeição da UNESP apresentou validade e consistência interna satisfatórias para mensurar o sentimento de rejeição na população adulta geral.

Palavras-chave: Avaliação psicológica. Psicometria. Rejeição psicológica. Sentimentos.

Sousa VI. Development and validation of a psychometric instrument to assess interpersonal stress [dissertação]. Araçatuba: Faculdade de Odontologia de Araçatuba da Universidade Estadual Paulista (Unesp); 2024.

ABSTRACT

People who have a high interpersonal rejection sensibility (IRS) can trigger negative emotions derived from many social events. The intensity of the feeling of rejection can lead to maladaptive behaviors which have been recognized as detrimental to physical and mental health. Although there are some instruments used to measure IRS, they are not focused on the subjective emotional experiences caused by the feeling of rejection. This study proposes to develop and validate the UNESP Rejection Feeling Scale (URFS), an instrument to measure the feeling of rejection derived from interpersonal relationships in the general Brazilian population. **Methods:** The URFS items were elaborated based on a theoretical model and reviewed by a panel of specialists. The URFS validation required a total of 30 volunteers. An exploratory factorial analysis was carried out, followed by factor selection and confirmatory factor analysis of internal consistency and reliability of the items were evaluated by the Cronbach's alpha coefficient. **Results:** In the exploratory analysis four factors were extracted. Cronbach's alpha calculation identified a satisfactory internal consistency value of 0.9. Confirmatory factor analysis indicated values of GDI=0.5062 and RMSEA=0.1919 (95%CI = 0.1711 - 0.2126). The GDI value indicated that the factors obtained were reasonable and the RMSEA was above expectations. **Conclusion:** The UNESP Rejection Feeling Scale presented a satisfactory validity and internal consistency for measuring the feeling of rejection in the general adult population.

Keywords: Psychological assessment. Psychometrics. Psychological rejection. Feelings.

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LISTA DE ABREVIATURAS

GFI	Goodness-of-fit index
IRS	Interpersonal Rejection Sensitivity
RMSEA	Root-Mean-Square Error of Approximation

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1. INTRODUCTION¹

Understanding subjective feelings or emotional experiences has been proven to be essential to comprehending various aspects of human life. Many emotions can emerge by either impersonal or interpersonal events. In interpersonal situations, the emotional response is mediated by the reaction of another individual or group [1,2]. Interpersonal emotions can not only reflect reactions to real events, but they can also emerge from anticipated, remembered, or imagined social situations [3]. An example of a common interpersonal event is being exposed to rejection. When someone is exposed to interpersonal rejection, there is a high probability of feeling severe emotional (and even physical) pain and stress [1]. The feeling of rejection can derive from many social events such as romantic rejections, the dissolution of a friendship, estrangement from family members, or being excluded from a group [3]. Independent of the source, rejection has been pointed as one of the most distressing events in a person's life [1,3].

It is intrinsic for human beings to avoid rejection. The intensity of the feeling of rejection varies for each individual. While most individuals have the experience minimized due to development of adaptive coping mechanisms, some people seem more vulnerable to emotional dysregulation due to rejection [4]. In fact, the most common initial response to rejection is to behave in ways that promote acceptance, increasing the perception to social cues and helping behavior, all of that in an attempt to show that one has high relational value [1,5]. However, some individuals develop antisocial reactions to rejection, which can lead to maladaptive behaviors, including

¹Formatado de acordo com a revista "Psychotherapy and Psychosomatics" - <https://karger.com/pps/pages/guidelines>

avoidance, detachment and hostility, which can eventually lead to social isolation [5,6]. People who have a high rejection sensibility can trigger negative emotions even in the most subtle cue of relational devaluation, believing they are not accepted, or respected [5].

There is an emerging discussion about how positive emotions from healthy relationships can stimulate healthier behaviors, such as a healthier diet and increase in physical activities [7]. Social support has been proven to act as a protective factor for harmful habits like smoking and alcohol consumption; there is also proof that social support can help prevent some important illnesses, such as cardiovascular disease [7,8]. On the other hand, negative interactions, for example social rejection, have been recognized as detrimental to physical and mental health, including less physical activity and higher alcohol consumption [6,7]. As previously mentioned, social isolation can also be a consequence of rejection, leading to poor sleep quality, impaired immunity and mental disorders, including depression [1]. There are studies that point to a bidirectional relation between social rejection expectations and depressive symptoms, suggesting that a cognitive-behavioral intervention could intervene in the rejection sensitivity in order to prevent the development and progression of depressive symptoms [9]. This way, it becomes relevant to characterize and keep track of interpersonal rejection and the emotions derived from this state, due to the possibility of adapting treatment and prevention for certain diseases that can appear.

Different research methods have been used in the attempt to measure rejection. There are a few experiments used to manipulate the feeling of rejection [10]. For example, Cyberball and the train ride paradigm, both experiments select one participant to be ignored from a group activity [11,12]. However, this method is controversial due to the analysis of the results depending on the investigator's

interpretation. Another method to measure rejection is through psychological instruments [10]. The instruments can be self-reports or behavioral measures. Some instruments do not investigate a direct experience of rejection but expectations, associations, or memories of rejection [10]. For example, the Sensitivity to Rejection Scale and the Rejection Sensitivity Questionnaire, both instruments used to measure interpersonal rejection sensitivity [13,14]. Other instruments focus on evaluating the internal states following rejection, such as mood, arousal, and self-esteem [10]. However, there is a lack in literature of psychological instruments that help the researcher or clinician to measure the feeling of rejection triggered by human relationships. In this study, we developed and validated an instrument to identify and measure the feeling of rejection derived in different dimensions of relationships in the general Brazilian adult population.

2. PARTICIPANTS AND METHODS

2.1 Participants

To carry out the construction and validation study of an instrument to measure the feeling of rejection, a total of 30 volunteers were recruited. Participants were recruited from the general population of the city of Araçatuba, São Paulo State, Brazil. Eligibility criteria required that volunteers be over 18 years old and that had a diagnosis or were under investigation for psychiatric illness, or had any cognitive deficit that could interfere with understanding of the questions were excluded from the study. There was no discrimination against participants based on ethnic origin or religious, professional, or marital status. Study protocol was reviewed and approved by the human studies committee of the Araçatuba Dental School of São Paulo State University – UNESP (67115123.8.0000.5420). All study participants were informed about the study and submitted to the Informed Consent Form (ICF).

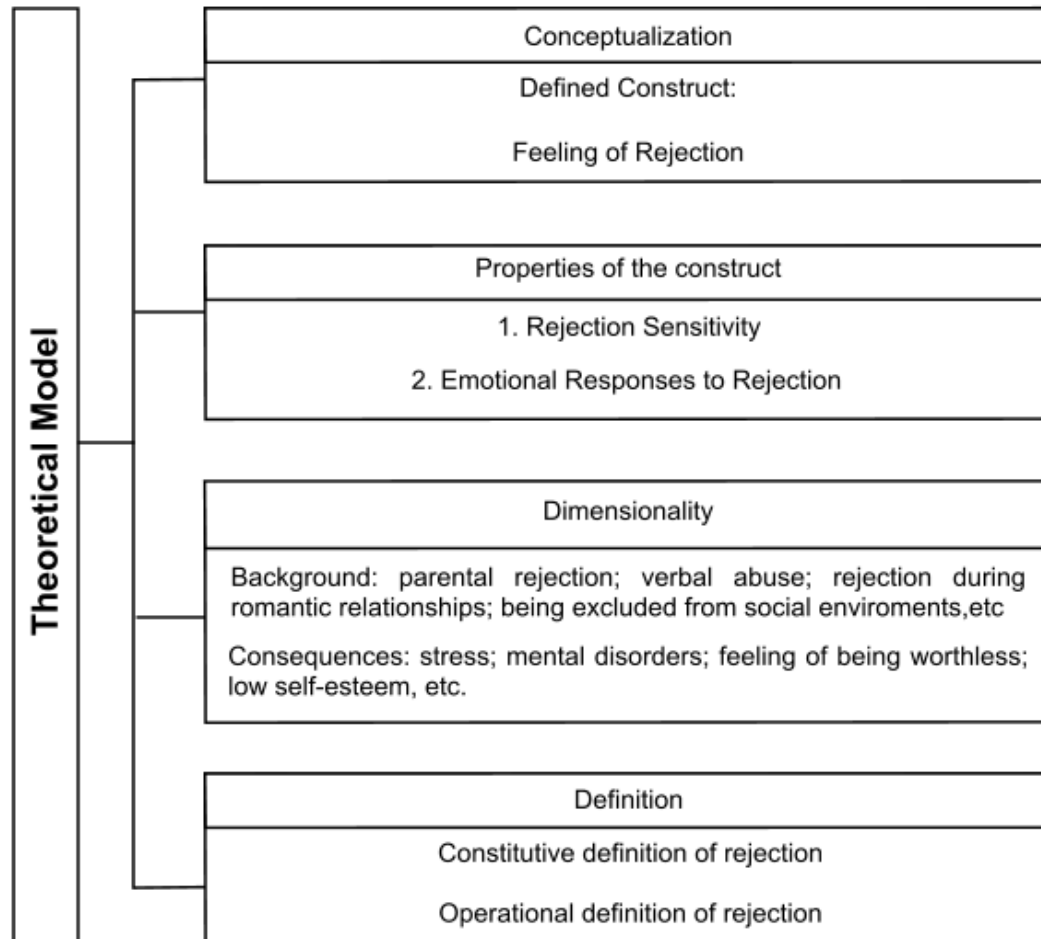
2.2 Instrument Development

The initial items were developed based on the results of a theoretical procedure composed of in-depth research into the chosen main object of study. In this case, the selected object was “the feeling of rejection.” The theoretical model was carried out in four stages according to the methodology recommended by Pasquali [15] and the results are shown in Figure 1. The first stage included delineating and defining the construct (feeling of rejection), which means stating what the construct is, and thus what it is not [15,16]. To carry out this phase, the clinical and scientific experience of the team at the Center for Research in Psychosomatics and Education from São Paulo State University (UNESP) in the care and psychosomatic assessment of patients with

chronic diseases was considered. Furthermore, a detailed theoretical exploration was carried out through the relevant literature [15,16]. Since the psychological object itself (feeling of rejection) cannot be directly measured, it was needed to establish its defining characteristics to be able to measure it and distinguish it from other objects [15,16]. These characteristics called attributes are shown in Fig. 1.

The third stage of the instrument development was composed of creating a dimensionality for the construct and its attributes. The attributes were divided into two categories: background and consequences to make it easier to understand the characteristics of each one and its dimensionality (shown in Fig. 1). This phase was important to make the understanding of the object of study simpler and clearer. The last stage was composed of a detailed conceptualization of the object of study and was divided into two processes. First, the establishing the constitutive definition and the operational definition of the construct (shown in Fig. 1) [15,17]. The constitutive definition implied establishing the semantics and definition according to literature about the construct. The operational definition was configured as the characterization of the connection between the construct and the items of the instrument, giving it a meaning, allowing its precise description [15,17]. The information obtained during the theoretical procedure was aggregated to formulate the items from the instrument.

Figure 1. Summary of the theoretical model of “The UNESP Rejection Feeling Scale”.



Based on the results of the theoretical model, 28 items were elaborated to assess the feeling of rejection in the general Brazilian population. The items were then divided into 4 main domains: perceived rejection in romantic relationships; perceived rejection in family relationships (general and specific) and perceived rejection in social relationships. The items 10 to 16 were divided into two subitems (A and B); with the first item (A) focusing on an overview of the interviewee's feelings regarding their family in general. In the second part (B), the volunteers were invited to answer the questions with a specific family member in mind which stands out compared to other family members. The purpose of these specific questions is to identify if there is someone in specific that brings the feeling of rejection to scene.

The chosen response format was composed by a five-point Likert scale, where the punctuation is “1- Always, 2-Often, 3-Sometimes, 4-Rarely and 5-Never”, except for the questions 16a, questions from the subitem B and question 19, where the score is inverted. When the question does not apply for the interviewee it automatically counts as 1 point, since it would count as the minimum possible rejection for that item. Since the instrument's response format consists of a 5-point likert scale, each proposed domain has a maximum and minimum score that can be reached. The first domain consists of nine questions about the feeling of rejection triggered by interviewees in their relationship with their romantic partner. The maximum score that can be achieved in the first domain is 45, with the minimum being a score of 9. The second domain investigates the feeling of rejection within the relationship with family members. For that, the domain was divided into two parts consisting of 7 items each. The maximum score that can be achieved for the first part is 35 and the minimum score is 7. Regarding questions from the B subitem of the family domain, each question can aggregate a maximum of 5 points to the score, which means the maximum score is 35

and the minimum is 7. The last domain is composed of 5 questions that explore the feeling of rejection in relationships with people from your social circle. The maximum score for this domain is 25 and the lowest score possible is 5. Each domain can be evaluated individually depending on which interpersonal relationship the interviewer wants to investigate the occurrence of the feeling of rejection. According to the instrument's response format, it was classified as a scale and was appointed as the "Rejection Feeling Scale from the São Paulo State University (UNESP)", or more simply the "UNESP Rejection Feeling Scale (URFS)".

2.3 Instrument Evaluation

The constructed items were reviewed by a panel of judges composed by five experts, including psychologists and psychiatrists. The judges were provided with a copy of the preliminary items and a statement regarding the development of the instrument. The content evaluation questionnaire was administered via Google forms. They were requested to evaluate each item regarding semantic adequacy, content, clarity, objectivity, relevance, appearance and precision according to the category proposed by the theoretical model. For each item on the instrument the assessment of the evaluation was carried out according to a 4-point Likert scale (did not comply; complied a little; complied a lot or complied perfectly) [15]. Opportunities for written comments were also provided. For each criterion evaluated, the minimum agreement between the judges was 80%. When the item did not reach this percentage, it was reformulated. After approval of the instrument items by the judges, the preliminary instrument was applied to 15 participants, when each of them was asked to point out possible difficulties in understanding the instructions and items.

2.4 Statistical Analysis

The SAS program (v.21; SAS Institute, Inc, Cary, North Carolina) was used for all analyzes. Descriptive statistics like frequency and percentages were obtained from sociodemographic data (sex, age and marital status). For each item, the average score $\pm$ SDs were calculated. The internal consistency and reliability were evaluated by the Cronbach's alpha coefficient. Values of ≥ 0.70 were considered ideal [18]. The means for the sum of the answers for each domain were calculated in the attempt to establish a scoring system for the questionnaire. An exploratory factorial analysis was conducted on the final instrument items using a principal components extraction method with varimax rotation followed by the confirmatory analysis evaluating the coefficients GFI (goodness-of-fit index) and RMSEA (Root-Mean-Square Error of Approximation). After confirmatory analysis, an alpha coefficient was obtained for each domain.

3. RESULTS

According to the content evaluation procedure, the committee of experts identified agreement regarding semantic adequacy, content, clarity, objectivity, relevance, appearance and precision for all scale items. This way, the questions have undergone a few modifications. After the experts' assessment, a pre-test was performed on a group of 15 volunteers as shown in Table 1. It was observed a raw α of 0.7 in the Cronbach's alpha indicating a good internal consistency between the scale items. After pre-testing, there was no modification in the items devised. Subsequently, the scale was applied in the sample selected for construct validation. Regarding the demographic characteristics of the 30 participants, they were divided equally between male and female. The mean age was 54 years old, with a minimum age of 33 years and a maximum of 77. Most participants were married (53,33%) followed by divorced (20%), single (20%) and widowed (6,67%) (Shown in Table 1).

Table 1. Participants' Characteristics for the pre-test and the construct validation phases.

Variables	Categories	Pre-Test (N=15)	Construct validation (N=30)
Gender	Male	9 (60)	15 (50)
	Female	6 (40)	15 (50)
Age	0-45y	2 (13.33)	7 (23.33)
	46-65y	11 (73.34)	19 (63.34)
	>65y	2 (13.33)	4 (13.33)
Marital status	Single	1 (6.67)	6 (20)
	Married	9 (60)	16 (53.33)
	Divorced	4 (26.66)	6 (20)
	Widowed	1 (6.67)	2 (6.67)

After the scale was applied in 30 volunteers, the common extraction values of the variables were evaluated using an exploratory factorial analysis. The four factors extracted were the following: (1) feeling rejected by a romantic partner, (2) feeling rejected by family members in general, (3) feeling rejected by a specific family member, and (4) feeling rejected by people from the social circle. (Table 3) The values of commonalities, the factorial loads of each construct formed and the explained variance are shown in Table 2.

Table 2. Exploratory factorial analysis (Rotation Varimax)

Categories	Items	Communalities	Factor 1	Factor 2	Factor 3	Factor 4
Feeling rejected by a romantic partner	1. satisfaction with received affection	0.634	0.693	-0.040	0.312	0.234
	2. feeling valued	0.884	0.926	0.080	0.116	0.070
	3. feeling cared for	0.801	0.875	0.085	0.058	0.156
	4. feeling loved	0.904	0.919	0.089	0.216	0.062
	5. feeling sexually desired	0.700	0.831	0.068	0.048	-0.054
	6. feeling alone	0.662	0.807	-0.077	0.016	0.055
	7. feeling that your wishes are taken into consideration	0.661	0.765	0.138	0.127	0.198
	8. hurt feelings	0.699	0.808	0.141	0.140	0.071
	9. feeling humiliated	0.762	0.685	0.261	-0.042	0.470
Feeling rejected by family members in general	10a. feeling valued	0.865	0.227	0.485	0.753	-0.098
	11a.satisfaction with received affection	0.928	0.283	0.249	0.858	0.220
	12a. feeling cared for	0.883	0.295	0.196	0.816	0.300
	13a. feeling loved	0.902	0.228	0.235	0.888	0.075
	14a. feeling important within family	0.786	-0.328	-0.116	0.767	0.274
	15a. feeling your opinions are taken into consideration	0.554	0.193	0.091	0.538	0.467
	16a. hurt feelings	0.635	0.416	0.472	0.451	0.189
Feeling rejected by a specific family member (pointed out by the interviewee)	10b. not feeling valued	0.766	0.020	0.832	0.232	0.140
	11b. unsatisfied with the lack of affection	0.618	0.058	0.500	0.580	0.162
	12b. not feeling cared for	0.811	0.226	0.694	0.524	-0.041
	13b. not feeling loved	0.733	-0.049	0.819	0.197	0.139
	14b. feeling less important than someone within family	0.418	0.143	0.596	0.175	0.110
	15b. feeling someone doesn't consider your opinions	0.909	0.103	0.941	-0.023	0.111
	16b. hurt feelings	0.774	0.036	0.874	0.035	0.083

Feeling rejected by people from the social circle	17. satisfied with the number of friends	0.727	0.212	-0.058	0.151	0.809
	18. feeling satisfied with the received support	0.576	0.069	-0.025	0.341	0.674
	19. not feeling well after needing help and not being assisted	0.620	0.192	0.340	0.047	0.682
	20. feeling less important than one or more people	0.608	0.001	0.214	0.095	0.744
	21. feeling excluded by one or more people	0.586	0.119	0.140	0.097	0.736
Variance%			6.789	5.068	4.944	3.616

The bold values represent the final selected factor loading values (>.500)

The summary of the answers from each scale item during the construct validation phase can be seen in Table 3. As the scale was divided into four domains, the responses to the items belonging to each domain were added together to evaluate the mean score for each domain. In the population selected for our study, it was observed in the first domain a mean score of 17.5, with the minimum score being 9 and the maximum being 37 (Table 3). In the second domain, consisting of questions related to feeling rejection triggered in relationships with family members, a mean score of 15 was found, varying from 7 to 32 in the questions aimed to identify the rejection feeling towards the general family (Table 3). In the extension of the second domain, when the interviewee is requested to point out if there is someone in specific from their family by whom they feel most rejected, the mean score was 12.9, with the minimum score of 7 and the maximum of 35 (Table 3). In the fourth domain about rejection feeling in relationships with people from your social circle, a mean score of 10.6 was found, with answers varying between 5 and 23 (Table 3).

Table 3. Mean score of the “UNESP Rejection Feeling Scale” items.

Domains	Items	M ($\pm$ SD)	Mean score for each domain
Feeling rejected by a romantic partner	1	1.8 (1.25)	17.5
	2	2.0 (1.33)	
	3	1.7 (1.10)	
	4	2.0 (1.29)	
	5	1.9 (1.21)	
	6	2.2 (1.50)	
	7	2.1 (1.30)	
	8	2.2 (1.07)	
	9	1.3 (0.85)	
Feeling rejected by family members in general	10a	2.3 (1.62)	15
	11a	2.3 (1.67)	
	12a	2.3 (1.74)	
	13a	2.0 (1.57)	
	14a	1.5 (1.22)	
	15a	2.5 (1.40)	
	16a	1.8 (1.33)	
Feeling rejected by a specific family member (pointed out by the interviewee)	10b	2.0 (1.67)	12.9
	11b	1.7 (1.52)	
	12b	1.9 (1.72)	
	13b	1.7 (1.46)	
	14b	1.5 (1.38)	
	15b	1.8 (1.57)	
	16b	2.1 (1.66)	
Feeling rejected by people from the social circle	17	1.8 (1.22)	10.6
	18	1.8 (1.19)	
	19	3.2 (1.37)	
	20	1.8 (1.21)	
	21	1.8 (1.10)	

M: Mean; SD: Standard deviation

Note: The response format is composed of a five-point Likert scale “1-Always, 2-Often, 3-Sometimes, 4-Rarely and 5-Never”; except for the questions 16a, questions from the subitem B and question 19, where the score is inverted.

To confirm the reliability of each proposed scale's domain, the questions of each domain were tested by Cronbach's Alpha calculation. The results identified a satisfactory internal consistency value (shown in Table 4). The first factor "feeling rejected by a romantic partner displayed an α of 0.9; the second factor "feeling rejected by a specific family member" and the third factor "feeling rejected by family members in general" had both an α of 0.9; meanwhile the fourth factor "feeling rejected by people from the social circle" had an α of 0.8. (shown in Table 4). The Cronbach's alpha calculation was redone after the results from the 30 volunteers and it displayed an α of 0.9. Confirmatory factorial analysis indicated values of GDI=0.5062 and RMSEA=0.1919 (95%CI = 0.1711 - 0.2126). The GDI value indicates that the factors obtained are reasonable and the RMSEA was above expectations (0.5%).

Table 4. Values of Crobach's alpha for each domain and the general scale.

Domains	α	rating
Factor 1 (Feeling rejected by a romantic partner)	0.94486	Ideal
Factor 2 (Feeling rejected by a specific family member)	0.91252	Ideal
Factor 3 (Feeling rejected by family members in general)	0.91924	Ideal
Factor 4 (Feeling rejected by people from the social circle)	0.82634	Ideal
General questionnaire	0.93323	Ideal

4. DISCUSSION

In this study, we present the development and validation of the UNESP Rejection Feeling Scale (URFS), a scale to assess the feeling of rejection in human beings that is potentially useful for researchers and clinicians from different areas of knowledge. The feeling of rejection is considered as a highly stressful experience with a direct impact on mental health [19]. Rejection sensitivity has been linked to a few maladaptive behaviors, such as aggression and isolation [5]. For example, romantic rejection could possibly induce clinical depression and in extreme cases lead to homicide or suicide [20]. Besides romantic rejection, various forms of social rejection, such as parental rejection or bullying, could be associated with increased suicide ideation [21]. Other psychological disorders, including anxiety, borderline personality disorder, and body dysmorphic disorder have also been related to rejection [19]. Although the implications of the feeling of rejection in the physiology of the human body are still unclear, evidence suggest that social rejection could even cause physical pain, similar to what occurs when a person is given painful stimulation [22,23].

There are a limited number of validated psychological instruments for evaluating emotional rejection. Most of the existing instruments are used to measure high sensitivity to rejection, or like most researchers name it, interpersonal rejection sensitivity (IRS). The Sensitivity to Rejection Scale is a personality questionnaire created to assess generalized negative expectations in social relationships [13]. This scale, one of the first instruments developed to measure IRS, is composed of 24 items and presents a good internal consistency [4,13]. The Rejection Sensitivity Questionnaire, an instrument developed and validated in college students, consists of 18 hypothetical interpersonal interactions where the interviewee answers how much anxiety they would feel in a situation where rejection by a meaningful person occurs

[14]. In this questionnaire, the interviewees indicate the level of anxiety they feel in relation to certain situations, as well as the perceived likelihood that the significant other in each situation will respond with rejection. There is also a shortened version of the Rejection Sensitivity Questionnaire adapted to assess sensitivity to rejection in general samples of adults [24]. There are other instruments used to measure IRS. However, they are not focused on the subjective emotional experiences caused by the feeling of rejection. On the other hand, there are other instruments with a different approach to measure rejection. As an example, a study validates an instrument to assess perceived social acceptance into three pivotal types of close relationships in adulthood [25]. The instrument was named Adult Interpersonal Acceptance-Rejection Scale (AIAS) [25]. Even if the main focus of the instrument is to evaluate acceptance, in which higher scores mean the person feels accepted, when the scores display a low number, it can be used to identify the occurrence of the rejection feeling [25]. However, the instrument focuses more on relationships with specific figures, such as the mother figure, which can also be seen as a limitation [25].

Here, we propose a new psychological instrument to measure the feeling of rejection. The URFS items include different domains of interpersonal relationships, such as romantic relationships, family relationships and relationships with people from the social circle. After analyzing the results from the validation process, the constructed instrument was considered valid for assessing the feeling of rejection in the general Brazilian population. The instrument is composed of 28 items structured in main four factors according to the exploratory factorial analysis. The first factor is made up of by items 1 to 9 and is called “Feeling rejected by romantic partner”. The items in this domain grouped feelings triggered in the relationship with the current partner or with the one whose relationship was more memorable when the person was not currently

in a romantic relationship. When analyzing the internal consistency between the items of this domain, the Cronbach's alpha revealed a great internal consistency ($\alpha_1=0.9$). Previous studies seem to focus in the feeling of rejection by new or potential partners, revealing an association of rejection with feelings of humiliation and decreased self-esteem [26]. Romantic rejection can be considered one of the most stressful life events in adults, leading to some psychological consequences such as depressive symptoms [27]. Despite the scarcity of studies evaluating the impact of rejection from established romantic partners, it is highly suggested that experiencing rejection from long-term relationships is also distressing, given that it involves being rejected by the person whose acceptance one most desires [26,28]. The psychological consequences of rejection seem to increase as interdependence and closeness grow, making the identification of perceived rejection in long-term relationships relevant [28]. This way, the UNESP Rejection Felling Scale proposes to measure in a reliable way and aid professionals and researchers to identify the feeling of rejection triggered by a current or past romantic relationship.

The second factor and third factor evaluated the feeling of rejection inside the relationship with family members. The second factor is "Feeling rejected by family members in general" composed by items 10a to 16a. After replying the questions from feelings of rejection in general family relationships, the interviewee was asked to point out if there was a specific family member who caused the feelings of rejection. Meanwhile, the third factor, called "Feeling rejected by a specific family member", is constituted of items 10b to 16b. The items of this domain are related to feelings of perceived rejection by a specific family member. When analyzing the internal consistency between the items of these domains, both revealed great internal consistency ($\alpha_2=0.9$; $\alpha_3=0.9$). There are not many studies regarding the feeling of

rejection triggered by relationships with family members in adults. The studies usually focus on parental rejection, rather than the whole family unit. Some studies point out that rejection from parents or other caretakers can be a predictor of behavioral problems in children, including excessive aggression [5]. Parental rejection has also been proven to be related to a specific form of psychological maladjustment among both children and adults [29]. Overall, people with more negative peer and family relations have been reported to have lower self-esteem [28]. Our questionnaire offers a new method for studies that aim to more broadly assess the feeling of rejection from people within their family unit characterizing the most stressful relationships.

The fourth URFS factor, constituted by items 17 to 21, is named “Feeling rejected by people from the social circle”. The items in this domain are related to feelings of perceived rejection triggered by relationship with people from the social circle (e.g. friends, neighbors, coworkers). The Cronbach’s alpha revealed a great internal consistency ($\alpha=0.8$) for this domain. Youths who are rejected by the majority of their peers have a higher occurrence of mental health problems such as anxiety and depression symptoms [30]. Although there is a lack of studies that more deeply evaluate the effects of social rejection in adults, evidence suggest that social rejection in early life stages could have consequences that are dragged to adulthood [31,32]. A study revealed that peer rejection in adolescents, who did not have friends, predicted lower global life satisfaction and lower perceived relationship quality in middle adulthood [31]. The URFS offers the opportunity for researchers to explore the association of the feeling of rejection and possible consequences in the adult population.

5. CONCLUSION

The UNESP Rejection Feeling Scale (URFS) proves to be appropriate for measuring the feeling of rejection in the Brazilian adult population. The instrument presented a satisfactory validity and internal consistency for broader analysis of the feeling of rejection triggered in romantic, family and social relationships. Given the lack of similar instruments, the URFS can be a useful tool for professionals and researchers in assessing the feeling of rejection and its stressful consequences in human beings.

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ANEXOS

Anexo A – Comitê de Ética

UNESP - FACULDADE DE
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ESTADUAL PAULISTA "JÚLIO
DE MESQUITA FILHO"



PARECER CONSUBSTANCIADO DO CEP

DADOS DO PROJETO DE PESQUISA

Título da Pesquisa: Desenvolvimento e Validação de um Instrumento de Pesquisa para Avaliar o Estresse Interpessoal na População Brasileira

Pesquisador: DANIEL GALERA BERNABÉ

Área Temática:

Versão: 1

CAAE: 67115123.8.0000.5420

Instituição Proponente: Universidade Estadual Paulista Júlio de Mesquita Filho

Patrocinador Principal: Financiamento Próprio

DADOS DO PARECER

Número do Parecer: 5.909.016

Apresentação do Projeto:

O estresse é definido como uma resposta neurofisiológica frente a estímulos que geram uma ameaça física ou psicológica. As emoções e sentimentos negativos derivados do relacionamento interpessoal podem induzir um estado de estresse crônico. Embora no Brasil existam alguns instrumentos validados para a avaliação do estresse emocional, são escassos os questionários disponíveis para avaliação do estresse interpessoal cujos resultados possam ser utilizados para avaliação clínica ou em pesquisas científicas. Em geral, os questionários disponíveis não priorizam a avaliação dos processos emocionais ou sentimentais derivados da relação interpessoal que podem gerar um estado de estresse crônico. Por isso, o objetivo do presente estudo é desenvolver e validar um questionário para avaliar o estresse interpessoal derivado de estados emocionais, possibilitando seu uso clínico e científico na população brasileira.

Objetivo da Pesquisa:

- Construir e validar um instrumento específico para avaliação dos níveis de estresse interpessoal em brasileiros adultos.
- Construir itens para um questionário de avaliação do estresse interpessoal. • Submeter o questionário construído a julgamento e aprovação por um comitê de juízes. • Avaliar as medidas psicométricas do questionário. • Após validação, aplicar em grupos de pacientes com desordens

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Continuação do Parecer: 5.909.016

potencialmente malignas (leucoplasia, eritroplasia e líquen plano); carcinoma espinocelular de cabeça e pescoço e doenças autoimunes (pênfigo vulgar, penfigóide benigno das membranas mucosas, síndrome de sjogren). Para avaliar o nível de estresse interpessoal nesses grupos.

Avaliação dos Riscos e Benefícios:

Riscos:

Os procedimentos usados neste estudo oferecem risco mínimo, pois será realizado por profissional treinado e habilitado. A participação nesta pesquisa não infringe as normas legais e éticas. Os procedimentos adotados nesta pesquisa obedecem aos Critérios da Ética em Pesquisa com Seres Humanos conforme Resolução nº. 466/12 do Conselho Nacional de Saúde.

Benefícios:

Ao participar desta pesquisa o participante não terá nenhum benefício direto. Entretanto, esperamos que este estudo resulte no desenvolvimento de um novo instrumento para avaliação do estresse interpessoal que possa ser usado em diversas áreas do conhecimento e contribua para a elaboração de estratégias preventivas e terapêuticas que promovam o bem-estar físico e psicológico.

Comentários e Considerações sobre a Pesquisa:

Os objetivos são claros e bem definidos.

Considerações sobre os Termos de apresentação obrigatória:

Todos os documentos e termos de apresentação obrigatória foram apresentados.

Recomendações:

Não há.

Conclusões ou Pendências e Lista de Inadequações:

Após a avaliação da metodologia proposta bem como dos documentos anexos somos favoráveis à execução do mesmo uma vez que a metodologia apresentada atende as normas da Resolução 466/12.

Considerações Finais a critério do CEP:

O CEP acata o parecer do relator. Informamos ao(a) senhor(a) pesquisador(a) que de acordo com a Resolução 466 CNS, de 12/12/2012 (título X, seção X.1., art. 3, item b, e, título XI, seção XI.2., item d), há necessidade de apresentação de relatórios semestrais, devendo o primeiro relatório ser

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Continuação do Parecer: 5.909.016

enviado até 24/02/2023. O CEP reitera a necessidade de entrega de uma via (não cópia) do TCLE ao sujeito participante da pesquisa e solicita ao pesquisador responsável leitura da carta circular 003/2011 CONEP/CNS antes do início do projeto.

Este parecer foi elaborado baseado nos documentos abaixo relacionados:

Tipo Documento	Arquivo	Postagem	Autor	Situação
Informações Básicas do Projeto	PB_INFORMAÇÕES_BÁSICAS_DO_PROJETO_2075214.pdf	17/01/2023 10:35:53		Aceito
Cronograma	CRONOGRAMA_Vitorialaros.pdf	17/01/2023 10:35:15	DANIEL GALERA BERNABÉ	Aceito
Projeto Detalhado / Brochura Investigador	projeto_de_pesquisa_Vitorialaros.pdf	17/01/2023 10:35:05	DANIEL GALERA BERNABÉ	Aceito
Folha de Rosto	Folha_de_Rosto_Vitorialaros.pdf	16/01/2023 16:41:44	DANIEL GALERA BERNABÉ	Aceito
TCLE / Termos de Assentimento / Justificativa de Ausência	tcle_vitoria_jaros.pdf	16/01/2023 16:34:57	DANIEL GALERA BERNABÉ	Aceito

Situação do Parecer:

Aprovado

Necessita Apreciação da CONEP:

Não

ARACATUBA, 24 de Fevereiro de 2023

Assinado por:
André Pinheiro de Magalhães Bertoz
(Coordenador(a))

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