Instruments for Diagnosing Stress in Nursing Professionals and Academics: A Systematic Review

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Abstract—Introduction: Stress is defined as feedback from the body in the face of psychophysiological stress. It can cause major health problems to the individual, directly affecting their quality of life in different ways, for there are some validated tools to detect symptoms and make their diagnosis. Objective: To point out instruments used to diagnose stress and to describe their differences. Methodology: Article conducted through systematic review, including studies that had greater relevance in their information and were related to health, and excluded those who escaped the proposed theme. In all, 32 sources were used, published between 1956 and 2019, thus covering initial stress research and more recent studies. Results: After searching the literature we found 8 validated instruments to diagnose stress, highlighting a translated version of 2017 of Stress Assessment in Nursing Students being the most current. Discussions: Stress is considered a disharmony situation of the organism, with adaptive responses that can be specific to the stressor and highly generalized. The importance of early diagnosis made by psychologists was highlighted, as well as the use of strategies to mitigate the effects of this disease. Conclusion: The means to diagnose stress are diverse, as stressors, so health professionals should be aware of all signs of stress experienced by both nursing students and trained nurses.

Keywords—Diagnosis, Stress, Nursing, Nursing Academics.

1. INTRODUCTION

Stress is characterized as an organism's response to a threatening situation, that is, a psychophysiological exhaustion, which can cause major health problems and drastically affect an individual's quality of life in many ways. Studies show that 90% of the population is affected by this disease, and is then seen as a global epidemic that may eventually cause a rise in blood pressure [1][2][3].

In this context, nursing is classified as the fourth most stressful profession, precisely because it has a higher susceptibility to stressors, since this occupation directly witnesses the health / disease process, which often happens in precarious conditions, in addition to being read daily, with suffering and death [4][5].

The stress caused by occupational stress contributes to the development of another harm, Burnout syndrome, occupational exhaustion that acts as a response caused by the chronic stress that makes professionals sick, at times when combat strategies are poorly resolved, causing a deficit in the quality of care provided, as well as physical and psychological damage [6][5][7].

For some authors, overload, communication problems with staff, responsibility to provide adequate care, interpersonal conflicts and job dissatisfaction are also stressors present in nursing work [8]. In short, these stressors are closely linked to the inherent factors of work [9].

In universities, nursing students are constantly facing stressful situations, precisely because they carry...
responsibilities that concern the lives and health of others. Given this it is noticeable that stress is rooted in the profession, both trained professionals and academics, due to the demand for large collections lived [10].

During nursing undergraduate stress is triggered when the student feels overwhelmed with academic demands, the beginning of contact with human pain and suffering in the internship field, insecurity about the professional future, in addition to the financial factor, since part of the students work to fund their studies. Symptoms affect their interpersonal relationships that compromise their well-being, so reducing these factors is necessary, since the labor market has received professionals with stress symptoms, which can interfere with the quality of nursing care offered to patient in the early years of formation [11].

This way, further studies are needed to provide a better understanding of stress diagnoses in order to develop possible prophylaxis methods for stress mitigation. Therefore, the objectives of this study are to point out the instruments used to diagnose stress, besides describing their differences.

II. METHODOLOGY

This article is based on a systematic review on Google Scholar, PubMed and Scielo platforms. This type of research is characterized by conducting a synthesis on a particular health theme, aiming to provide data obtained on a problem [12].

For the execution of this work, a wide search in the literature was performed. In the end 32 sources were used, published from 1956 to 2019, thus covering initial research on stress, as well as more recent studies. We selected scientific articles that presented greater relevance in their data and were related to the health area, and excluded those who escaped from the theme addressed. The instruments were left in their original languages to retain their original quirks and characteristics.

III. RESULTS

Considering the focus and general objective of this study, we searched the world literature for instruments that can measure and diagnose stress. The data obtained were distributed in a table for better organization, and there is also a short synthesis about it, aiming to help researchers who wish to use any of these tools.

| AUTHORS | INSTRUMENT | INSTRUMENT SUMMARY |
|---------|------------|--------------------|
| [13].   | Bianchi Stress Scale(annex1) | • Focused on Determining the Level of Stress in Hospital Nursing in the Basic Exercise of Her Work;  
• It is self-applicable;  
• It takes an average of 15 minutes to answer;  
• Formed by 51 items, divided into 6 domains, which gets a score ranging from 1 to 7;  
• DOMAINS:  
1 - relationship with other units and supervisors (nine items: 40, 41, 42, 43, 44, 45, 46, 50, 51);  
2 - activities related to the proper functioning of the unit (six items: 1, 2, 3, 4, 5, 6);  
3 - personnel management activities (six items: 7, 8, 9, 12, 13, 14);  
4 - nursing care provided to the patient (fifteen items: 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30);  
5 - coordination of the unit's activities (eight items: 10, 11, 15, 31, 32, 38, 39, 47);  
6 - working conditions for the performance of nurses' activities (seven items: 33, 34, 35, 36, 37, 48, 49).  
• SCORES:  
≤ 3.0: low stress level;  
Between 3.1 and 5.9: medium stress level;  

| [14]. Stress Assessment in Nursing Students (annex 2). | ≥ 6.0: high stress level. |
|-----------------------------------------------------|--------------------------|
| **Stress Assessment in Nursing Students (annex 2).** | ● Aimed at nursing academics, but there is guidance for use on different samples; |
| • The instrument consists of 30 items, organized into six domains: | 1. Realization of practical activities; |
| 2. Professional communication; | 3. Time management; |
| 3. Environment; | 4. Professional qualification; |
| 5. Professional qualification; | 6. Theoretical activity. |

| [14] *apud* [15]. Stress Assessment in Nursing Students – Version Reduced (annex 3). | |
|---------------------------------|-----------------|
| **Stress Assessment in Nursing Students – Version Reduced (annex 3).** | ● Aimed at university nursing students; |
| • It can be applied anywhere in the undergraduate degree; | ● This version consists of 19 items; |
| • Consisting of 4 domains: | 1. Realization of practical activities (Items 2, 3, 4 and 5); |
| 2. Theoretical activity (Items 1, 7, 9, 10, 15, 17 and 19); | 3. Environment (Items 8, 14, 16 and 18); |
| 3. Environment (Items 8, 14, 16 and 18); | 4. Vocational Training (Items 6, 11, 12 and 13). |

| [16]. Perceived Stress Scale (PSS) (figures 1 and 2). | ● The scale has 14 questions, the answers are: 0: never; 1: almost never; 2: sometimes; 3: fairly often; 4: very often; |
|-----------------------------------------------------|-----------------------------------------------------------|
| **Perceived Stress Scale (PSS) (figures 1 and 2).** | ● The items declared positive are: 4, 5, 6, 7, 9, 10 and 13. |

| [16] *apud* [17]. Perceived Stress Scale in Brazilian Portuguese (annex 4). | ● The article aims to translate the Perceived Stress Scale (PSS) into Portuguese and measure the perceived stress in the elderly in Brazil; |
|-------------------------------------------------|------------------------------------------------------------------|
| **Perceived Stress Scale in Brazilian Portuguese (annex 4).** | ● The scale has 14 questions with answer options that can be: 0: never; 1: almost never; 2: sometimes; 3: almost always; 4: always; |
| • Positive questions are: 4, 5, 6, 7, 9, 10 and 13. | |

| [16] *apud* [18]. Perceived Stress Scale in Portuguese from Portugal (annex 5). | ● PSS-10 includes items 1, 2, 3, 6, 7, 8, 9, 10, 11, and 14 of PSS-14; |
|-------------------------------------------------|------------------------------------------------------------------|
| **Perceived Stress Scale in Portuguese from Portugal (annex 5).** | ● Possible answers are: 0- never, 1- almost never, 2- sometimes, 3- often, and 4- very often). |

| [16] *apud* [19]. Perceived Stress Scale 4 (PSS-4) (annex 6). | ● PSS-4 is formed by the numbers 2, 6, 7 and 14 of PSS-14; |
|-------------------------------------------------|------------------------------------------------------------------|
| **Perceived Stress Scale 4 (PSS-4) (annex 6).** | ● This scale can be used in telephone interviews and in other situations where a smaller scale is required to provide data under stress. |

| [20]*apud*[1]. Lipp Adult Stress Symptom Inventory (annex7). | ● It consists of 53 symptoms, organized hierarchically by symptom intensity. It takes about 10 minutes to perform, and can only be done in one interviewee or in groups of up to 20 people. To respond to each of the phases, the person indicates the physical or psychological signals felt in the last 24 hours, the past week or the last month [21] [22]. |
|-------------------------------------------------|------------------------------------------------------------------|
| **Lipp Adult Stress Symptom Inventory (annex7).** | ● This instrument contains 37 somatic and 19 psychological symptoms, which are often repeated, modifying only their intensity and severity; |
| • It consists of three frames relating to the four phases of stress. | 1st chart: has 15 items related to the alert phase, of which 12 relate to physical symptoms and 3 to psychological symptoms experienced by the person in the last 24 hours; |
| 2nd chart: it consists of 15 items, related to the phases of resistance and near exhaustion, 10 physical and 5 psychological symptoms observed in the last week; | 3rd chart: includes 23 items, which are equivalent to the exhaustion phase, of |
After investigation of the literature, a total of 8 validated instruments were found, being the 2017 smallest version of Stress Assessment in Nursing Students the most current, already the oldest was PSS-14, 10 and 4, published in 1983 [16]. This scale was translated into Portuguese from Brazil [17] and Portugal, but in this study, we used one of the shortened versions, the PSS-10 [18].

Psychological assessments are systematic observational procedures that record the conduct and responses of individuals for the purpose of describing and/or measuring psychological peculiarities and processes, commonly understood in the areas of emotion/affect, cognition/intelligence, motivation/personality, psychomotor, attention, memory, perception, among others, in their various ways of expression, based on patterns defined by the construction of instruments [23].

Thus, it should be emphasized that the use of instruments for the assessment or measurement of psychological characteristics for the purpose of psychological diagnosis is a private matter of the psychologist [24].

### IV. DISCUSSIONS

Originally from physics, the word stress was used in the early twentieth century by Hans Selye to name the joint actions of forces that can reach any part of the human body. He presented the thesis that a series of stereotyped psychological and physiological occurrences in critically ill patients reproduced serious and lasting consequences of adaptive responses. He referred to this as the 'General Adaptation Syndrome (GAS)' or 'Stress Syndrome (SS)' [25].

Stress can still be classified as a disharmony situation when the body's homeostasis is endangered, with adaptive responses that may or may not be stressor-specific [26].

If this problem is not taken care of, it affects the health of the individual, the efficiency and professional and personal performance and can cause a scenario of depression, but it is not simple to find the agent responsible for stress, so it is suggested that the best way to detect it is through diagnosis and consultation with able psychologists using appropriate instruments [27].

In a survey of 136 nursing students from a private institution, 30.9% showed low perception of stress, 46.3% medium and 22.8% high. From these results we can evidence something positive related to the small number of students with high perception, because the available literature shows that in most cases the rates are higher [28].

As in a study that showed that among 209 academics, 163 had stress indicators and only 22% of the total did not show the indicative [29]. Authors say that the high perception of stress affects performance, lifestyle and causes damage to the health of the university, point out that the higher the perception of stress the greater the danger of illness [28].

From the relationship between stress in future nurses and sociodemographic factors, it was found that 75% of a sample of 32 people were classified with signs of this disease and the sociodemographic variable that showed the highest relationship with stress was marital status [30].

Because of the stressors caused by the course, academics use methods to relax and combat stress, but still use smoking and alcohol as a means to remedy their effects [31].

Coping is cited as a strategy to alleviate stress in nursing students. It is characterized by the ability to cope with and adapt to stressful events in a positive way, concerns the form of behavior or even thoughts in the face of such events, and can also be considered a union of physical and psychological techniques that can be learned, changed, and even discarded [10].

In nurses who perform the function, authors suggest that these are the most susceptible to stress at work, given that the deficit of professionals in the area causes an increase and overload of service, along with the separation relationship between nurses and technicians or nursing assistants, decreased professional authority and autonomy, and disagreements with other health officials [32].

### V. CONCLUSION

As noted, the tools to diagnose stress are numerous, which makes a vast possibility for researchers. In addition, they can be applied to both active nursing professionals and academics, which increases the possibilities for future studies.

The stressors are varied, with different nature and several triggering factors. They are closely linked with the performance of nursing professionals, since the academic life, because students go through situations that can trigger imbalance due to both professional and social pressure, so
health professionals should pay attention to all symptoms of stress experienced by both academics and working nurses.

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**Annex 1 - Bianchi Stress Scale [13].**

Este questionário tem a finalidade de levantar dados para conhecer sua opinião quanto ao desempenho de suas atividades. NÃO PRECISA IDENTIFICAÇÃO. Assinale a alternativa que revele a sua percepção, levando em consideração os números:

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|

não se aplica ou com médio muito
"não faço" desgastante desgastante

**PARTE 1**

| Sexo : feminino ( ) masculino ( )
| Faixa etária : ( ) 20 a 30 anos ( ) 31 a 40 anos ( ) 41 a 50 anos ( ) mais de 50 anos
| Cargo: 
| Unidade a que pertence: 
| Tempo de formado: ( ) menos de 1 ano ( ) de 2 a 5 anos ( ) de 6 a 10 anos ( ) de 11 a 15 anos ( ) mais de 16 anos
| Cursos de pós-graduação: ( ) não ( ) sim Qual (is)
| Tempo de trabalho nessa unidade:

**PARTE 2**

1. Previsão de material a ser usado 0 1 2 3 4 5 6 7
2. Reposição de material 0 1 2 3 4 5 6 7
3. Controle de material usado 0 1 2 3 4 5 6 7
4. Controle de equipamento 0 1 2 3 4 5 6 7
5. Solicitação de revisão e consertos de equipamentos 0 1 2 3 4 5 6 7
6. Levantamento de quantidade de materiais existente na unidade 0 1 2 3 4 5 6 7
7. Controlar a equipe de enfermagem 0 1 2 3 4 5 6 7
8. Realizar a distribuição de funcionários 0 1 2 3 4 5 6 7
9. Supervisionar as atividades da equipe 0 1 2 3 4 5 6 7
10. Controlar a qualidade do cuidado 0 1 2 3 4 5 6 7
11. Coordenar as atividades da unidade 0 1 2 3 4 5 6 7
12. Realizar o treinamento 0 1 2 3 4 5 6 7
13. Avaliar o desempenho do funcionário 0 1 2 3 4 5 6 7
14. Elaborar escala mensal de funcionários 0 1 2 3 4 5 6 7
15. Elaborar relatório mensal da unidade 0 1 2 3 4 5 6 7
16. Admitir o paciente na unidade 0 1 2 3 4 5 6 7
17. Fazer exame físico do paciente 0 1 2 3 4 5 6 7
18. Prescrever cuidados de enfermagem
19. Avaliar as condições do paciente
20. Atender as necessidades do paciente
21. Atender às necessidades dos familiares
22. Orientar o paciente para o auto cuidado
23. Orientar os familiares para cuidar do paciente
24. Supervisionar o cuidado de enfermagem prestado
25. Orientar para a alta do paciente
26. Prestar os cuidados de enfermagem
27. Atender as emergências na unidade
28. Atender aos familiares de pacientes críticos
29. Enfrentar a morte do paciente
30. Orientar familiares de paciente crítico
31. Realizar discussão de caso com funcionários
32. Realizar discussão de caso com equipe multiprofissional
33. Participar de reuniões do Departamento de Enfermagem
34. Participar de comissões na instituição
35. Participar de eventos científicos
36. O ambiente físico da unidade
37. Nível de barulho na unidade
38. Elaborar rotinas, normas e procedimentos
39. Atualizar rotinas, normas e procedimentos
40. Relacionamento com outras unidades
41. Relacionamento com centro cirúrgico
42. Relacionamento com centro de material
43. Relacionamento com almoxarifado
44. Relacionamento com farmácia
45. Relacionamento com manutenção
46. Relacionamento com admissão/alta de paciente
47. Definição das funções do enfermeiro
48. Realizar atividades burocráticas
49. Realizar tarefas com tempo mínimo disponível
50. Comunicação com supervisores de enfermagem

Annex 2–Stress Assessment in Nursing Students [14].

Leia atentamente cada item abaixo e marque com um “X” o número correspondente com a intensidade de estresse que a situação lhe provoca, conforme a legenda a seguir:

0 = não vivencio a situação
1 = não me sinto estressado com a situação
2 = me sinto pouco estressado com a situação
3 = me sinto muito estressado com a situação

| Nova Numeração | Itens                                | 0 | 1 | 2 | 3 |
|----------------|--------------------------------------|---|---|---|---|
| 1.             | Ter preocupação com o futuro profissional |   |   |   |   |
Cálculo dos escores:

Para aferição do resultado, deve ser feita a soma do número correspondente da intensidade de estresse dos itens presentes em cada domínio. O domínio com maior pontuação será considerado predominante e com maior intensidade de estresse para o respondente.

### Domínio 1:

- 4, 5, 7, 9, 12, 21

### Domínio 2:

- 6, 8, 16, 20

### Domínio 3:

- 3, 18, 23, 26, 30

### Domínio 4:

- 11, 22, 24, 29

### Domínio 5:

- 1, 15, 17, 19, 25, 27

### Domínio 6:

- 2, 10, 13, 14, 28

### Interpretação dos escores:

**Domínio 1:**

0-9 baixo nível de estresse; 10-12 médio nível de estresse; 13-14 altonível de estresse; 15-18 muito alto nível de estresse.

**Domínio 2:**

0-5 baixo nível de estresse; 6 médio nível de estresse; 7-8 alto nível de estresse; 9-12 muito alto nível de estresse.

**Domínio 3:**

0-10 baixo nível de estresse; 11-12 médio nível de estresse; 13-14 alto nível de estresse; 15 muito alto nível de estresse.

**Domínio 4:**

0-7 baixo nível de estresse; 8-10 médio nível de estresse; 11 alto nível de estresse; 12 muito alto nível de estresse.
Annex 3 - Stress Assessment in Nursing Students – Version Reduced [14]apud[15].

Leia atentamente cada ítem abaixo e marque com um “X” o número correspondente com a intensidade de estresse que a situação lhe provoca, conforme a legenda a seguir:

|                | 0     | 1     | 2     | 3     |
|----------------|-------|-------|-------|-------|
| Não vivenciou a situação | Não me sinto estressado com a situação | Me sinto pouco estressado com a situação | Me sinto muito estressado com a situação |
| 1               |       |       |       |       |
| A obrigatoriedade em realizar os trabalhos extraclasse |       |       |       |       |
| 2               |       |       |       |       |
| Realizar os procedimentos assistenciais de modo geral |       |       |       |       |
| 3               |       |       |       |       |
| Comunicação com os demais profissionais da unidade de estágio |       |       |       |       |
| 4               |       |       |       |       |
| O ambiente da unidade clínica de estágio |       |       |       |       |
| 5               |       |       |       |       |
| Comunicação com os profissionais de outros setores no local de estágio |       |       |       |       |
| 6               |       |       |       |       |
| Ter medo de cometer erros durante a assistência ao paciente |       |       |       |       |
| 7               |       |       |       |       |
| A forma adotada para avaliar o conteúdo teórico |       |       |       |       |
| 8               |       |       |       |       |
| Distância entre a faculdade e o local de moradia |       |       |       |       |
| 9               |       |       |       |       |
| Sentir insegurança ou medo ao fazer as provas teóricas |       |       |       |       |
| 10              |       |       |       |       |
| O grau de dificuldade para a execução dos trabalhos extraclasse |       |       |       |       |
| 11              |       |       |       |       |
| Perceber as dificuldades que envolvem o relacionamento com outros profissionais da área |       |       |       |       |
| 12              |       |       |       |       |
| Perceber a responsabilidade profissional quando está atuando no campo de estágio |       |       |       |       |
| 13              |       |       |       |       |
| Observar atitudes conflitantes em outros profissionais |       |       |       |       |
| 14              |       |       |       |       |
| Transporte público utilizado para chegar à faculdade |       |       |       |       |
| 15              |       |       |       |       |
| Tempo exigido pelo professor para a entrega das atividades extraclasse |       |       |       |       |
| 16              |       |       |       |       |
| Distância entre a maioria dos campos de estágio e o local de moradia |       |       |       |       |
| 17              |       |       |       |       |
| Faltar tempo para o lazer |       |       |       |       |
| 18              |       |       |       |       |
| Transporte público utilizado para chegar ao local do estágio |       |       |       |       |
| 19              |       |       |       |       |
| Faltar tempo para momentos de descanso |       |       |       |       |

Figures 1 e 2 - Perceived Stress Scale (PSS) [16].
APPENDIX A:
Items and Instructions for Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

0. never
1. almost never
2. sometimes
3. fairly often
4. very often

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and “stressed”?
4. In the last month, how often have you dealt successfully with irritating life hassles?
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
6. In the last month, how often have you felt confident about your ability to handle your personal problems?
7. In the last month, how often have you felt that things were going your way?
8. In the last month, how often have you found that you could not cope with all the things that you had to do?
9. In the last month, how often have you been able to control irritations in your life?
10. In the last month, how often have you felt that you were on top of things?

Figure 2

APPENDIX A (Continued)

11. In the last month, how often have you been angered because of things that happened that were outside of your control?
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
13. In the last month, how often have you been able to control the way you spend your time?
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

*a Scored in the reverse direction.

Annex 4 - Perceived Stress Scale in Brazilian Portuguese [16]apud[17].

Itens e instruções para aplicação

As questões nesta escala perguntam sobre seus sentimentos e pensamentos durante o último mês. Em cada caso, será pedido para você indicar o quão frequentemente você tem se sentido de uma determinada maneira. Embora algumas das perguntas sejam similares, há diferenças entre elas e você deve analisar cada uma como uma pergunta separada. A melhor abordagem é responder a cada pergunta razoavelmente rápido. Isto é, não tente contar o número de vezes que você se sentiu de uma maneira particular, mas indique a alternativa que lhe pareça como uma estimativa razoável. Para cada pergunta, escolha as seguintes alternativas:

0= nunca
1= quase nunca
2= às vezes
3= quase sempre
Annex 5 - Perceived Stress Scale in Portuguese from Portugal [16] *apud* [18]

**Instruções e itens traduzidos da Perceived Stress Scale**

Para cada questão, pedimos que indique com que frequência se sentiu ou pensou de determinada maneira, durante o último mês. Apesar de algumas perguntas serem parecidas, existem diferenças entre elas e deve responder a cada uma como perguntas separadas. Responda de forma rápida e espontânea. Para cada questão, escolha a alternativa que melhor se ajusta à sua situação.

0 - Nunca. 1 - Quase nunca. 2 - Algumas vezes. 3 - Frequentemente. 4 - Muito frequentemente.

1. No último mês, com que frequência esteve preocupado(a) por causa de algo que aconteceu inesperadamente?
2. No último mês, com que frequência se sentiu incapaz de controlar as coisas importantes da sua vida?
3. No último mês, com que frequência se sentiu nervoso e “estressado”?  
4. No último mês, com que frequência tratou com sucesso dos problemas difíceis da vida?
5. No último mês, com que frequência se sentiu confiante na sua habilidade de resolver problemas pessoais?
6. No último mês, com que frequência se sentiu incapaz de controlar as coisas importantes da sua vida?
7. No último mês, com que frequência se sentiu nervoso e em estresse?
8. No último mês, com que frequência tratou com sucesso dos problemas pessoais?
9. No último mês, com que frequência se sentiu confiante na sua habilidade de resolver problemas pessoais?
10. No último mês, com que frequência se sentiu nervoso e em estresse?
11. No último mês, com que frequência se sentiu furioso(a) por alguma coisa que aconteceu inesperadamente?
12. No último mês, com que frequência se sentiu confiante na sua habilidade de resolver problemas pessoais?
13. No último mês, com que frequência se sentiu levado(a) a fazer algo que não queria fazer?
14. No último mês, com que frequência se sentiu confiante na sua habilidade de resolver problemas pessoais?

† Itens cotados de forma inversa.

**Annex 6 - Perceived Stress Scale 4 (PSS-4)**[16] *apud* [19].

**Perceived Stress Scale 4**(PSS-4)

**INSTRUCTIONS**
The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by placing an “X” over the square representing HOW OFTEN you felt or thought a certain way.

| Question                                                                 | Never | Almost Never | Sometimes | Fairly Often | Very Often |
|--------------------------------------------------------------------------|-------|--------------|-----------|-------------|-----------|
| 1. In the last month, how often have you felt that you were unable to control the important things in your life? |       |              |           |             |           |
| 2. In the last month, how often have you felt that you were unable to control the important things in your life? |       |              |           |             |           |
| 3. In the last month, how often have you felt confident about your ability to handle your personal problems? |       |              |           |             |           |
| 4. In the last month, how often have you felt that things were going your way? |       |              |           |             |           |
| 5. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? |       |              |           |             |           |

Scoring for the Perceived Stress Scale 4:

- Questions 1 and 4
- Questions 2 and 3

| Score | Description          |
|-------|----------------------|
| 0     | Never                |
| 1     | Almost Never         |
| 2     | Sometimes            |
| 3     | Fairly Often         |
| 4     | Very Often           |

Lowest score: 0
Highest score: 16

Higher scores are correlated to more stress.

Annex 7 -Lipp Adult Stress Symptom Inventory [20] apud [1].

QUADRO - 1

| Sintomas sentidos na ultimasemana (de __________ ate hoje) |
|----------------------------------------------------------|
|   ( ) 01 Problemas com amemoria                           |
|   ( ) 02 Mal-estar generalizado, sem motivo              |
|   ( ) 03 Formigamento demaos/pes                          |
|   ( ) 04 Sensacao de desgaste fisicoconstante             |
|   ( ) 05 Mudanca deapetite                               |
|   ( ) 06 Aparecimento de problema de pele                 |
|   ( ) 07 Pressao alta                                    |
|   ( ) 08 Cansaço constante                                |
|   ( ) 09 Aparecimento de ulcera                           |
|   ( ) 10 Tontura ou sensacao de estaflutuando            |
|   ( ) 11 Muito sensivel em nivel deemoacao                |
|   ( ) 12 Duida quanto a si proprio                       |
|   ( ) 13 Pensar direto em um só assunto                  |
|   ( ) 14 Iritabilidadeexcessiva                          |
|   ( ) 15 Diminuicao do desejo por sexo                   |
Você vai me dizer os sintomas que sentiu no último mês (de até hoje).

- ( ) 01 Diarreia frequente
- ( ) 02 Dificuldade com sexo
- ( ) 03 Dificuldade para pegar no sono/acordar durante a noite
- ( ) 04 Náuseas/ânsia de vômito
- ( ) 05 Tiques/manias, por exemplo: ficar mexendo no cabelo
- ( ) 06 Pressão alta direto
- ( ) 07 Problemas de pele por um tempo longo
- ( ) 08 Mudança extrema de apetite
- ( ) 09 Excesso de gases [estômago/intestino(barriga)]
- ( ) 10 Tontura frequente
- ( ) 11 Úlcera
- ( ) 12 Enfarte
- ( ) 13 Impossibilidade de trabalhar ( ) 14 Pesadelos
- ( ) 15 Sensação de não ser competente em todas as áreas

| QUADRO 3 |
|----------------|
| Você vai me dizer os sintomas que sentiu no último mês (de até hoje). |
| ( ) 01 Diarreia frequente |
| ( ) 02 Dificuldade com sexo |
| ( ) 03 Dificuldade para pegar no sono/acordar durante a noite |
| ( ) 04 Náuseas/ânsia de vômito |
| ( ) 05 Tiques/manias, por exemplo: ficar mexendo no cabelo |
| ( ) 06 Pressão alta direto |
| ( ) 07 Problemas de pele por um tempo longo |
| ( ) 08 Mudança extrema de apetite |
| ( ) 09 Excesso de gases [estômago/intestino(barriga)] |
| ( ) 10 Tontura frequente |
| ( ) 11 Úlcera |
| ( ) 12 Enfarte |
| ( ) 13 Impossibilidade de trabalhar ( ) 14 Pesadelos |
| ( ) 15 Sensação de não ser competente em todas as áreas |

Avaliação

F1 ( )
F2 ( )
F3 ( )
Total (vertical)

Total (horizontal)
P1 ( )
P2 ( )
P3 ( )
P()