Psychological Effects of Stress Involved in the Doctor-Patient and Nurse-Patient Relationship Throughout Imaging Investigations. Case Studies

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Abstract

Introduction: *Nowadays stress affecting medical professionals is more and more intense. Studies reveal that it also correlates with a low level of assertive professional communication.*

Objectives: *Analyzing the relationship between stress, depression and interpersonal communication of medical staff with both colleagues and patients at "St. John's" Children's Hospital in Galați; capturing of the significant emotional, cognitive and behavioral factors in the psychological functioning of some medical professionals; identifying psychological responses to stressors that cause emotional and behavioral distress reactions.*

Methods: *The present study is a preliminary one and aims to evaluate the psychological effects of stress in the relationship between medical staff and patient, among doctors and other medical staff, on a small number of subjects. Thus, for the study, 4 participants were included, employees of the Radiology Department of "St. John's" Children's Hospital in Galați.*

Results: *There is a correlation between healthcare professionals' stress and interpersonal communication when there is a huge amount of work. All the cases stated in the interview that the high level of work with tight deadlines influence the stress level to a great extent. All of them expressed they were open to receive training on assertive communication.*

Conclusions: *Medical staff face a series of psycho-social challenges which, directly or not, generate a reaction to stress. Sometimes such reactions can be misadjusting, in which case they further generate other problems, such as depression, anxiety, somatizations and others. In the end, the medical act and also the communication between doctor-patient or nurse-patient are affected. We aim to evaluate from a quantitative point of view the influence of stress on the doctor-patient relationship, by studying this phenomenon on a larger group of subjects.*

Keywords: doctor-patient relationship, radiology, stress management, professional communication, depression, anxiety, experiential

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I. Introduction

Stress in medical imaging

Stress is defined by Hans Selye (1984) as a non-specific response of the body to a certain request to which it is subjected. The National Institute for Occupational Safety and Health (Cooper, 2002) defines work stress as consisting of all working conditions that lead to stress. The conditions that can become stressful at work are:

1. the way tasks are formulated;
2. type of leadership;
3. poor communication between employee and employer;
4. lack of participation in decision-making activities;
5. interpersonal relationships;
6. the role of the employee in the institution;
7. worries about your own career;
8. working conditions.

Starting from this definition, we aimed to research stress conditions in interpersonal relationships and the way stress influences doctor-patient communication. Each specialty comes with its peculiarities and its risks of infection. Like other specialties, medical imaging involves a direct and close relationship with patients. This relationship is particularly important when we refer to the young patients, children, who are afraid of investigations in general. On engaging with them, the medical staff must show more patience, be more careful, in order to collaborate and to carry out the medical process, namely to perform an X-ray, ultrasound, a CT scan or an MRI on the young patient. A study conducted in China (Huang et al., 2020) on 364 subjects, following the application of the Conor-Davidson Resilience Scale and the Self-Rating Anxiety Scale, revealed a high level of anxiety among healthcare professionals at risk of exposure to the coronavirus. According to a recent study on the effects of stress caused by the COVID-19 pandemic (Coppola et al., 2021) conducted in Rome, on 2150 radiologists, more than 50% of respondents encountered psychological problems. The fear of getting infected, the lack of equipment and most of the time also the lack of an adequate protocol for teamwork were the challenges the study highlighted, the conclusion also stressing out the need for specialized training for the medical staff in the radiology departments, focused on stress management and the avoidance of burnout.

Other aspects that can be optimized are strengthening of the relationship between doctor and patient, and also increasing the level of communication between medical staff and beneficiaries of the health services. Another important study (Weiguo et al., 2020) was conducted in Shandong province of China, on 5331 subjects to analyze anxiety and depression levels, following the application of GAD-7 and PHQ tools; the Patient Health Questionnaire-9 revealed that subjects showed moderate rates of anxiety and depression. Authentic and assertive communication can often help medical staff get closer to the patient, render them more cooperative and therefore make the medical procedure easier. When patients themselves are faced with anxiety related to the medical process during the COVID-19 pandemic, it is good for the medical staff to show understanding, to validate their feelings and help them come to terms with these feelings, to accept them and, at the same time, take action, think positively, interpret reality differently, through cognitive reframing techniques. All these can be easily solved by specialized trainings (Potts, Potts, 2016). Otherwise, it can lead to what Marshall Rosenberg (2014) called alienated communication. This type of communication is focused on preconceptions, judging the interlocutor, and also encouraging violence. Rosenberg also talks about communicating our desires in the form of an order, which blocks compassion. Very often, the orders doctors and nurses give patients confuse them even more, because the latter fail to obey or run away from the paternalist model, very often becoming recalcitrant.

A high level of assertiveness in communication can lead to a better relationship between doctor and patient, as it ensures, implicitly, a higher level of patience on the part of the medical staff, but also a more participatory attitude of the patients (Gartner et al., 2021). Parents of children may have a transgenerational fear of doctor, which they transmit to their children (Godeanu, Godeanu, 2021). On the other hand, doctors and nurses in imaging departments have an increased number of patients from many generations, as a consequence they face this problem and come across the outdated mentality according to which doctors and nurses must, under paternalistic model, decide everything on behalf of the patient, in an inflexible way.

Now that patients are becoming more and more entitled with the democratization of access to information, doctors feel more pressure. And the COVID pandemic is coming to further reinforce this fear. Ioan Bradu Iamandescu, professor at "Carol Davila" University of Medicine and Pharmacy, together with Professor Crina Julieta Sinescu highlight the need for good communication with patients in their book,

Psychocardiology, not only for better compliance with treatment but also to protect medical staff from burnout. "In order to establish a good relationship with the patient, the communication skills of the doctor in terms of content and process are necessary and important.

The content of the communication refers to anamnesis, the questions formulated and the information obtained by the doctor (regarding the condition itself, but also about the patient's representations related to the affliction) and the information provided to the patient in relation to the treatment.

The process of communication (the way of communication) refers to aspects such as nonverbal and verbal behavior, active listening to the patient, how to establish and develop the relationship with the patient. The empathic attitude and respect of the doctor towards the patient, effective communication, the ability to obtain information about the condition and provide details about the treatment, obtaining patient's trust are significant aspects that have as effects: increased therapeutic compliance, a high degree of satisfaction of both patients and doctors, reduction of emotional distress in patients, better control of the treatment of chronic diseases. Medical communication (and improving, through specific training courses, the communication skills of doctors) has the effect of optimizing adherence to treatment with the improvement of health. At the same time, feelings of satisfaction of the doctor emerge from the ability to interpret the symptoms, put the right diagnosis, recommend the appropriate treatment and protect oneself from emotional exhaustion or burnout syndrome." (Iamandescu, Sinescu, 2015, p. 206).

Currently, in our country there is no scientific research on the anxiety of medical staff in radiology departments. That is why we consider necessary to develop studies, both qualitative and quantitative, in order to highlight the level of anxiety in the medical system, its influence in the health crisis, but also to evaluate the doctor-patient communication and its effects. Moreover, such studies are also important the context of the COVID-19 pandemic, which has brought with it a series of changes at social and professional level, especially among doctors (Neguț, Constantin, 2020).

The purpose of this study is to assess the level of stress and anxiety in the radiology department of "St. John's" Children's Hospital in Galați in relation to patients, colleagues and the allocated time resources, but also to emphasize the way stress influences professional communication.

II. Objectives and hypotheses

Objectives

- Identifying the relationship between stress, depression and interpersonal communication of healthcare professionals with both colleagues and patients.
- Emphasizing emotional, cognitive and behavioral factors in the psychological functioning of part of the medical staff from the Radiology Department of "St. John" Children's Hospital, from Galați, Romania, with relevance in identifying and evaluating stressors, physical and mental health, as a response of the body and the individual as a whole.
- Identifying psychological responses to stressors that cause emotional and behavioral distress reactions.

Hypotheses

H1: We assume that, among medical professionals, the more assertive the communication is, the less stress there is.

H2: We assume that lesser the time medical professionals have to investigate and establish a diagnosis, the more stressed they are.

H3: We assume that more intense stress correlates with less time allotted to patients, unsatisfactory relationships with colleagues at work, and with a negative direct interaction with patients.

III. Methods

Participants and procedure

The present study is a preliminary one and aims to evaluate the psychological effects of stress in the relationship between medical staff and patient, namely doctors and other medical staff, on a small number of subjects. Thus, for the study 4 participants were included, all employees of the Radiology Department of "St. John's" Children's Hospital in Galați. Of them, one is a primary radiologist, two are resident doctors and one is a nurse. The demographic distribution is given below:

Age	Gender
54	F
48	F
29	M
48	F

Table 1 – Age and gender of the participants

Initially, together with the hospital clinical psychologist, we launched an announcement about the micro-research to be carried out and as a response the

subjects voluntarily participated in the study. They were informed about the purpose and objectives of the study and were asked for their consent to use the data in this regard. Also, they were informed that the participation in the research involved two stages, a semi-structured interview and the application of psychometric questionnaires. The data collection was carried out in 2021, during a 2 months period.

Design

The study is a qualitative, non-experimental and explanatory one, as it aims to reveal some potential effects of stress in the professional communication of the medical staff in Romania. The data was collected in a single stage. The dependent variable is stress and the independent variables are time allotted to patients, relationships with colleagues at work and direct interaction with patients.

Instruments

The psychometric tools used were Psychiatric Diagnostic Screening Questionnaire (PDSQ), Reactivity and Emotional Dynamic (RDE) and the Hamilton Depression Scale (HRSD). We chose these tools because the psychological peculiarities highlighted by them can influence the communication between medical staff and patient (Ciucă et al., 2011).

PDSQ: The PDSQ questionnaire allows obtaining both a general psychopathology score and scores at the specific subscale, targeting 13 disorders on the first axis: Major depressive disorder; Posttraumatic Stress Disorder; Bulimia/ compulsive eating behavior; Obsessive-compulsive disorder; Panic disorder; Psychotic disorders; Agoraphobia; Social phobia; Alcohol abuse/ dependence; Drug abuse/ dependence (drugs); Generalized anxiety disorder; Somatization disorder; Hypochondria. In addition, one can also obtain a score concerning suicide risk and guides for conducting further interviews at a later stage. The 125-item questionnaire draws attention to the problematic areas and the interview guides allow the evaluation of the problems at a deeper level, in a systematic and rigorous manner.

Psychometric qualities: concurrent and criterion validity (it discriminates between a clinical and a nonclinical group, between people with a certain diagnosis and those without that diagnosis); internal consistency (0.68-0.94) and test-retest fidelity (0.67-0.93). In the context of current problems (increased frequency of mental health problems, increased level of clinical comorbidity, but which is insufficiently diagnosed, lack of financial resources and time), PDSQ is a very good solution, which brings two extremely important elements in clinical practice: increasing fidelity, by standardizing the evaluation process; increasing the validity of the evaluation process, by facilitating the application of the DSM-IV diagnostic criteria and by taking into account some symptoms that would otherwise be overlooked.

RDE personality questionnaire contains 75 questions, and the client has binary answer variants YES/ NO. The factors measured are as follows:

M-Lie – The opposition between. The accentuated tendency towards lying is revealed: irrelevant questionnaire; questionnaire of significant relevance;

E.G. – Nervous Energy: this factor is materialized by the contrast of the features: increased strength of excitation, nervous weakness, low resistance to intense and long-lasting stresses, stressful affective situations, predisposition to neurasthenia;

Mn – Nervous mobility: the following tendencies are opposed: ideation, motor and emotional instability, ability to concentrate in short time, tendency to superficiality, inertia, low reactivity, increased degree of inhibition, reduced initiative and promptness;

Fi – The force of inhibition: by this factor ratios are assessed: hyper-prudence; excessively delayed reactions (reduced promptness); increased sensory thresholds, indifference or emotional flattening, exaggerated impulsivity, weakness of self-control mechanisms, difficulties in balancing in tense, affective situations;

RDE – Reactivity and emotional dynamics. The trends are opposed: low emotiveness, increased resistance to stress, good emotional balance; fragile emotional balance, instability, predominance of the asthenic effect, disorganization of emotions on behaviors and experiences, increased emotional tension and anxiety, predisposition to neurotic and psychotic disorders, emotional hypersensitivity.

Hamilton Depression Scale – the HRSD scale was introduced in 1960 by Hamilton and it has become the most widely used scale in the field. Although it appeared in the same year as the Cronholm-Ottoson Depression Scale, the Hamilton scale has become by far the most widely used scale and an international tool for communication between investigators. It is mostly used in psychopharmacological studies in a standard battery

to assess the severity of symptoms and sensitivity to change, and has generated a huge "database" for analytical or comparative studies. The Hamilton scale is also widely used for its instructive value in the process of training new psychiatrists or clinical psychologists. The original scale was built to quantify the severity of depression only in patients previously diagnosed with depression and not as a tool to identify depression. It treats depression as an integrated concept and its attempt to identify the components of depression has yielded contradictory results (Vraști, 2020).

In addition to the three psychometric tools, we also held a semi-structured interview with each of the participants on the Zoom platform.

The purpose of the interview was to highlight in an experiential manner the way in which the participants relate to the professional communication process, what they consider to be the main impediments in achieving a more assertive communication act, and also to make a correlation of their psychological profile with the communication needs, and to identify the psychological factors that contribute to the state of stress and coping mechanisms, with a focus on professional communication.

The semi-structured interview was developed in consultation with the hospital clinician psychologist and consisted of 18 questions:

1. Do you agree to start the interview?
2. Tell us a few words about yourself.
3. Do you appreciate you communicate easily with people regardless of their social status and character?
4. How do you describe your relationships with your colleagues?
5. Do you think you can positively influence the work of your team?
6. What are the main problems at the workplace?
7. What do you need when difficulties arise in your work?
8. Are there situations in which you feel overwhelmed at work? If so, can you share an example?
9. How do you describe yourself in your relationship with the young patient and with their relatives?
10. What are your strengths in the relationship with the patient?
11. What do you do when the patient is difficult/ challenging you, does not cooperate, etc.?
12. How do you feel when the patient does not follow/ refuses the examination instructions?
13. What methods do you use to better communicate with the patient?
14. What was the most difficult situation you faced in your relationship with the patient?
15. What do you think about imaging investigations?
16. What grade do you give yourself as a professional?
17. Would you be interested in taking a specialization course to improve your communication skills?
18. Is there anything else about your work that you would like you to talk to us about?

IV. Results

Case Study 1

V. C., 29 years old, male, resident physician in the Radiology Department, considered essential to receive help from colleagues and superiors in his professional activity. He stated that he is often asked to carry out tasks he does not consider himself prepared for, that once one activity has begun, he is asked to do another, thus not being able to complete the initial one. "I try to adapt... I am often disappointed by what I do...".

Objective of the evaluation: Identification of significant emotional, cognitive and behavioral factors in the psychological functioning of the subject with relevance in capturing and evaluating stressors; obtaining a perception on physical and mental health as a response of the body and the individual as a whole.

Behavior during the evaluation: During the evaluation, the subject was cooperative, showing psychomotor slowness, no negative aspects were reported in his behavior, but for slight hesitation and concealment in answering some of the questions. The evidence aimed to seek psychological responses to identifiable stressors that cause emotional and behavioral distress reactions.

The PDSQ questionnaire revealed a T-43 score which means that the subject reported an average number of psychiatric symptoms. He answered affirmatively to a critical item on the social phobia subscale (item 76, indicating that he was regularly avoiding certain situations from fear that he might do or say something to embarrass himself).

The Hamilton scale revealed a score of 15, which indicates a mild depression. The score is correlated to the loss of self-confidence.

Regarding the professional activity, the subject may manifest professional maladjustment in conditions

of stress or personal dissatisfaction, low resistance to intense and long-term stress, predisposition to neurasthenia (value 2 at the nervous energy scale – RDE questionnaire), as well as proneness to accidents if ongoing experience of emotional intensity.

Also, according to the results obtained at the RDE Questionnaire, the subject had low initiative and promptness (value 2 at the nervous mobility scale), fragile emotional balance, predisposition to neurotic disorders (value 7 at the reactivity and emotional dynamics scale).

Conclusions: Following the psychodiagnostics and the clinical evaluation, we formulate the following conclusions. The psychological evaluation started from a semi-structured clinical interview that focused on the way the subject relates to the professional activity, with emphasis on the last stressor: the COVID-19 pandemic wave. The main problems highlighted were those related to the workload, to the fear of not "coping" with the requests. The subject felt the impact of a professional overload, manifested by: excessive requests (quantitative and qualitative in nature), lack of socio-professional support from superiors and colleagues, which led to a state of distress. The psychological evaluation outlined the main diagnosis of predisposition to neurotic disorder and social phobia. The subject also had anxious symptoms, without meeting the criteria for a clinical diagnosis. Low self-esteem, his personal value depending on the esteem received from others. We can conclude that certain stressful events, the COVID-19 pandemic wave, along with other stressors such as work overloads, interact with a state of psychological vulnerability highlighted by self-deprecation, dysfunctional attitudes and beliefs, generating neurotic symptomatology manifested at the affective level through dissatisfaction of dysfunctional attitudes and beliefs, neurotic symptomatology implying dissatisfaction with oneself, irritability; at cognitive level through dichotomous thinking, dysfunctional thoughts; at behavioral level through behavioral deactivation; and at the biological level through a certain degree of physiological activation.

Recommendations: Psychotherapy, in order to establish the therapeutic relationship, aiming to normalize emotional reactions, reduce vulnerability, address negative ideas, regain self-esteem, create a social network (it is important for the psychologist to emphasize the opportunity to maintain relationships with others, to have a social support network while avoiding isolation).

Case Study 2

C. P., aged 54, female, primary physician in the Radiology Department, considered that the main problems at work are related to the inequity of the distribution of tasks, the large volume of work, the lack of "medical knowledge" of the patients' relatives, the fact that they "do not understand what they are reading" and "come with anxiety and concern".

Objective of the evaluation: Identification of significant psychological, cognitive and behavioral factors in the functioning of the subject with relevance in evaluating stress factors; revealing the perception on the physical and mental health status as a response of the body and the individual as a whole.

Behavior during evaluation: During the evaluation the following were observed: mimicry, gestures, posture and motor behavior, noting generally neat appearance, decent clothing, stable visual contact, good collaboration with the psychologist. The behavior did not go beyond the normal range and the mood was appropriate to the evaluation situation and age. The problems were aimed at noting psychological responses to identifiable stressors that cause emotional and behavioral distress reactions.

The PDSQ questionnaire revealed a T-36 score which reads that the subject reported a reduced number of psychiatric symptoms. She reported symptoms in the bulimia area (7), obtaining critical scores for items 37 and 46 (indicating that she often happened to eat compulsively, ingesting over a short period of time a very large amount of food and that weight was one of the most significant elements that influenced her self-perception).

The participant had good emotional balance (value 13 at the reactivity and emotional dynamics scale – RDE questionnaire), an increased force of arousal (value 9 at the nervous energy scale – RDE questionnaire) and a low level of depression (score 6 – Hamilton scale).

Conclusions: Corroborating the data of the expressive behavioral picture offered in the clinical interview, with the results recorded in the psychological samples administered, through this psychological evaluation we issue the following opinions: coherent spontaneous dialogue, spatially, temporally and allopsychically grounded, attention and concentration within normal limits, without perception disorders, long-term memory, logical thinking in normal parameters. She did not present disturbances in the content of thought at the time of examination. She displayed a symptomatology specific to compulsive

eating. Overall, a balanced person, capable of managing her emotions.

Recommendations: Psychotherapy, to address her complaints.

Case study 3

M. T., 48 years old, female, nurse in the Department of Radiology, believed that the main problems she faced at work are related to relationships with peers ("under-involvement"), the insufficient number of staff and the pandemic context: "I feel overwhelmed in wave four... children are affected...".

Objective of the evaluation: Identification of significant psychological, cognitive and behavioral factors in the overall functioning of the subject with relevance in identifying and evaluating stressors; capturing the perception on physical and mental health as a response of the body and the individual as a whole.

Behavior during the evaluation: As a first impression, M.T. appeared as a sociable, expressive, somehow impulsive and carefree person. She later confirmed that she has a network of friends and participates in volunteering activities. During the evaluation, the participant was cooperative, no negative aspects were reported in her behavior. The administered tests aimed to note psychological responses to identifiable stressors that cause emotional and behavioral distress reactions.

The PDSQ questionnaire revealed a T-34 score which means that the subject reported a reduced number of psychiatric symptoms. Recorded symptoms in the area obsessive-compulsive disorder did not exceed the section's threshold, excepting items 47 and 51, where she scored critically, indicating that she obsessively worried about dirt, microbes, viruses and that she washed or cleaned up things around her obsessively and excessively.

She presented a good emotional balance, low emotiveness, increased resistance to stress (score 21 at the reactivity scale and emotional dynamics – RDE questionnaire), without symptoms of depression (score 3 – Hamilton Scale).

Conclusions: After the psychological evaluation, the following observations are listed: during the evaluation, the subject had appropriate behavior and was receptive. She emphasized that the obsessive-compulsive tendencies increased in the pandemic context. No interpersonal problems or signals towards dysfunctional compulsive behaviors as a personality disorder were highlighted. She shows an adaptive behavior in the professional field. The results of most of the evidence show a behavior oriented towards understanding and lack of conflict.

Recommendations: Psychological counseling, in order to develop assertive communication and problem solving; managing emotional distress.

Case study 4

F. M., 48-year-old female, resident physician in the Radiology Department, stated that at work "Not all of them are effective like me! The others are not doing their job...", and in difficult situations she needs "more lucidity and the courage to speak up more".

Objective of the evaluation: Identification of significant emotional, cognitive and behavioral factors in the psychological functioning of the subject with relevance in identifying and evaluating stress factors; the overall physical and mental health status in response of the organism and the individual as a whole.

Behavior during the evaluation: During the evaluation, the participant was cooperative, alternating between agitation and calmness, rigidity, controlled attitude and posture and abrupt, irregular speech or blank gaze. The evidence aimed to look into psychological responses to identifiable stressors that cause emotional and behavioral distress reactions.

The PDSQ questionnaire revealed a T-34 score which indicated that the subject reported a reduced number of psychiatric symptoms. However, the recorded symptoms in the area of Psychotic Disorder are exceeding the threshold of section. She scored critically for items 62, 63, 64, indicating that the participant believed certain situations were happening in reality, while others told her they were not; she was convinced that the others were examining her, that they were talking of her or spying on her, and that she thought she was in danger because someone was planning to harm her. In addition, she also recorded symptoms in the area of Somatization Disorder exceeding the threshold of section. She scored critically on item 105, indicating that she had been in poor physical health for most of her life.

The RDE questionnaire presents an increased force of arousal (value 10 at the nervous energy scale), a slight tendency towards superficiality, reduced concentration capacity in time (value 9 at the nervous mobility scale), reduced promptness (value 11 at the inhibition force scale), low emotiveness, increased resistance to stress (value 17 at the reactivity scale and emotional dynamics). Normal depression level (7 – Hamilton Scale).

Conclusions: The results obtained at the psychological tests emphasized irritable temperamental

features, highlighted by the impressive way in which she manifested herself and the style combined between the desire to speak on the one hand and the need for action on the other hand, interwound with divagations, which sometimes resembled an avoidance mechanism. The examined subject displayed a crafty attitude and impulsive behavioral style. She described rigid and solid ethical principles (which generally cannot be held up to) and an idealized conscientiousness (frustrated desire). The psychopathological tendencies can affect the ability of others to relate with, integrate and understand her, both in the family environment and in the socio-professional environment.

Recommendations: Psychotherapy; pharmaco-therapy – in order to improve symptoms and to identify and modify maladaptive cognitive schemes.

V. Discussions

As we can see above, there is a correlation related to stress and interpersonal communication in medical professionals when they deal with a very large amount of work. All four cases revealed in the interview that the high level of work with short deadlines influences to a large extent their level of stress. At the same time, none of the subjects obtained a high depression score.

One of the resident doctors had significant psychological, cognitive, behavioral factors impacting on their psychological functioning. She stood out from the other participants through irritable temperamental traits, highlighted by the expansive way in which she manifested herself and the pendulation between the desire to speak up and the need of action, mixed with dissociation. The subject had symptoms specific to psychotic and somatization disorders, materialized in disturbances of thought content at the time of examination – her psychopathological tendencies negatively impacting the participant's relations with peers and family, making it harder for her to be included and understood.

Regarding the identification of psychological responses to identifiable stressors that cause emotional and behavioral distress reactions, the most relevant in the demonstration of the hypothesis was the first case study. As showed, in the case of the first resident physician, the subject reported an average number of psychiatric symptoms, answering affirmatively to PDSQ questionnaire item 76 (he regularly avoided certain situations because he was afraid that he might do or say something to embarrass himself). The Hamilton scale score of 15 indicated mild depression, corelated to the loss of self-confidence. In conditions of stress or personal dissatisfaction the subject was prone to manifest professional maladjustment, exhibiting low resistance to intense and long-term stresses and predisposition to neurasthenia in accentuated emotive background. Also, in RDE Questionnaire, the subject sometimes showed low initiative and delayed promptness, fragile emotional balance and predisposition to neurotic disorders.

All participants mentioned they were open to receive training on assertive communication.

VI. Conclusions

As revealed in the above case studies, the medical staff face a series of psycho-social and personal challenges which directly or indirectly generate a reaction to stress. Sometimes such reactions can be maladaptive, in which case they bring about other problems, such as depression, anxiety, somatizations and others. In the end the medical act and also the communication doctor-patient/ nurse-patient are affected. Thus, the results obtained in this study are in line with others (Chiang, Chang, 2012), which attest to the fact that high levels of stress among the medical staff generate psychological effects that can interfere with the medical act.

Of course, the small sample of subjects and the impossibility to extract some quantitative results are limits in this endeavor, but it opens the possibility to future directions of study. We further intend to evaluate from a quantitative point of view the influence of stress on the doctor-patient relationship, by studying this phenomenon on a larger group of subjects.

We also emphasize in this context the need for the implementation of trainings and personal development/ support groups in order to optimize the level of communication with the patient, but also to better manage stress, anxiety and other psychological factors that interfere with the medical act. There are studies that highlight the need to develop adaptive coping strategies in dealing with stress in doctors (Xu et al., 2019), but also the fact that a protocol focused on the integration of psychological factors involved in the medical profession has positive effects on the doctor-patient relationship and influences the state of relaxation of doctors and nurses (Kaimal et al., 2019).

For example, an experiential protocol that includes art therapeutic techniques and assertive communication techniques could be effective in relieving the symptoms described by the 4 subjects included in this paper, likewise in other doctors facing

similar situations (Virago, 2021). In this context, another direction of study, besides the evaluation of the effects of stress among doctors, can be to develop an experiential-unifying program of optimization and behavioral self-regulation, centered on expressive-creative techniques and on the symbolic work, specific to Unifying Experiential Psychotherapy (Mitrofan, Mindu, 2013).

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