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The relationship between stress and the use of humour as a coping mechanism in nurses

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Abstract. The present study focuses on the occupational health of nurses, investigating the relationship between dimensions of occupational burnout and the use of coping mechanisms through humor. To conduct the research, we used standardized assessment instruments to measure dimensions of occupational burnout and investigated how nurses resort to coping mechanisms through humor using the questionnaire method. Our results revealed significant correlations between certain dimensions of burnout and the use of coping mechanisms through humor. Mental detachment was positively associated with heavy use of humor as a coping strategy, indicating that nurses experiencing increased emotional exhaustion tend to turn more often to humor to cope with professional stress. This finding suggests that humour may play an important role in counteracting burnout. This research adds significantly to our understanding of nurses' occupational health and suggests that interventions focused on promoting the adaptive use of humour may be effective in reducing emotional exhaustion in this important profession.

Keywords: occupational stress, burnout, coping mechanisms, sense of humour, nurses

1. Introduction

Society is a constantly developing environment in which people are exposed to different factors, variables and psychological demands. The human psyche is loaded with numerous demands depending on moments and situations that induce the body into a state of stress.

Stress ranks third in the top health concerns of Romanians, considering stress more important than mental health, according to a study conducted in 2023 (<https://www.ipsos.com/ro-ro/principalele-probleme-de-sanatate-care-ii-preocupa-pe-romani>). Psychological stress is among the most researched topics in psychology and in terms of mass culture in maintaining mental health and the specifics of Romanian society, the two variables bring prejudice about the effects of advice



from specialists, the psyche feels the negative impact of social events producing significant discomfort.

Different strategies for avoiding, reducing and improving the negative impact of these states, called coping mechanisms, are involved in the regulation of the psychological state.

This study aims to identify those coping mechanisms that help to remediate and modify psychological states in people with nursing specialization, of different ages and cultural backgrounds.

Based on the premise that stress is closely related to mood coping mechanisms, we proposed that increased levels of stress will affect people's mood, leading to aggressive or affiliative coping types.

1.1. Stress

In a fast-paced, ever-changing world, stress has become an undeniable constant. Particularly in the workplace, pressures, deadlines and high expectations can create an environment for stress to develop, affecting both the physical and mental health of the individual. Basically, this phenomenon influences the way employees perform their job tasks, and can also reach its highest stage, being a serious problem known as burnout.

According to Lazarus and Folkman (1984), stress can be described as "a particular relationship between the individual and his or her environment, assessed by the individual as one in which his or her resources are not sufficient to cope with the demands of the environment." This perspective emphasizes the subjective nature of stress, how individuals perceive and manage environmental pressures.

On the other hand, the impact of stress in the workplace has been intensively studied by specialists such as Selye (1976), who pointed out that "stress is the source of tension that can lead to harmful physical or psychological consequences." Thus, it is essential to understand that stress is not simply an emotional reaction, but can have significant implications for an individual's overall health.

Following this research, an important aspect that deserves our attention is the risk of burnout in the workplace. Maslach and Leiter (2016) define burnout as "a state of physical, emotional and mental exhaustion caused by chronic involvement in work-related stressful situations." In a society where efficiency and performance are often prioritized over employee well-being, it is imperative to explore effective strategies to prevent and manage this phenomenon.

1.2. Coping through humour

Given the challenges and stresses of everyday life, people have always looked for ways to cope and keep their emotional balance. Among these coping strategies, humour proves to be a reliable ally, bringing a touch of levity and perspective to tense situations.

Humour, in all its forms, from jokes to irony, can serve as an effective way of distancing the individual from tense situations. As psychologist William James (2007) states "We are like sounding boards and laughter is our way of venting." This perspective suggests that humour provides a pathway for the release of accumulated pressure, allowing the individual to look at life's challenges with humour and creativity.



Studies in psychology confirm the benefits of coping through humour. Martin Seligman (2002), the father of positive psychology, points out that "humour is one of the highest expressions of human intelligence because it allows us to maintain perspective, find meaning in difficult situations and maintain resilience in the face of challenges." Humour is therefore not only a way to escape from reality, but also an ability to look at difficult situations with an agile and adaptable mind.

Thus we will study the mechanisms by which humour influences emotional state, interpersonal relationships and ultimately contributes to a better quality of life. In a world where stress is ubiquitous, addressing the topic of coping through humour becomes increasingly relevant and pertinent.

2. Research methodology

2.1. Objectives and hypotheses

The overall objective of the present research is to test whether there is a relationship between the level of burnout and the use of humour to cope with occupational stress in nurses.

Below we present our proposed hypotheses.

Hypothesis 1: It is assumed that there is a positive correlation between the overall level of burnout and the overall score on the humor coping inventory.

Hypothesis 2: It is assumed that there is a positive correlation between the overall level of burnout and the aggressive-manipulative coping style.

Hypothesis 3: A negative correlation is presumed to exist between the general level of burnout and instrumental coping through affiliation.

Hypothesis 4: A positive correlation is presumed to exist between mental distancing and scores on the coping types assessed by the coping through humour questionnaire.

2.2. The group of subjects

The group of subjects consists of 26 female nurses aged between 23 and 60 years old living in urban areas.

2.3. Methods and instruments

The research was conducted using the self-report questionnaire method. The questionnaires used were submitted online and subjects completed them in the absence of an examiner. The data provided by the subjects studied was voluntarily provided. Participants gave their consent to the processing of their personal data for research purposes.

The first instrument used was the Burnout Assessment Tool (Schaufeli, De Witte, & Desart, 2020) in its general version. The questionnaire contains 35 Likert items that assess 6 symptoms from different areas that can occur as a result of burnout: exhaustion, mental detachment, impaired cognitive control, impaired emotional control, psychological distress, psychosomatic symptoms. The sum of the scores of all scales reflects the overall level of burnout.

The second questionnaire administered was the Occupational Coping through Humor Questionnaire (Doosje, De Goede, Van Doornen, & Goldstein, 2010). This instrument assesses the extent to which the respondent uses humor to cope with stressful situations at work. The scale comprises 4 dimensions of humor as a mechanism to manage stress in organizational contexts,



these are: antecedent-focused humor coping, response-focused humor coping, affiliative-focused humor coping, and aggressive-manipulative humor coping. Summing the scores of all scales reflects the overall extent of use of humorous coping in the organizational context.

2.4. Operationalisation of working variables

In line with the objectives, hypotheses and instruments used in the research, we present below the operationalization of the working variables.

By "burnout" we refer to the phenomenon of mental and physical exhaustion resulting from work overload. It will appear later in the study under this name, and consists in the overall score obtained on the Burnout Assessment Inventory.

From administering the same questionnaire, we also get the variables "burnout", "mental distancing", "impaired cognitive control", "impaired emotional control", "psychological distress", "psychosomatic symptoms" which we will interpret according to their description from the test manual (Schaufeli, De Witte, & Desart, 2020, pg. 27-28):

- Exhaustion: severe loss of energy, manifested by physical and mental fatigue, including lack of energy to start a new work day and inability to relax after work;
- Mental detachment: Psychological withdrawal and aversion to work, characterised by lack of enthusiasm and interest, indifference and a cynical attitude, sometimes manifested physically by avoiding contact with others at work;
- Impaired cognitive control: memory problems, attention and concentration deficits, and poor cognitive performance, including difficulties in thinking clearly and accumulating new knowledge;-
- Emotional control impairment: intense emotional reactions and feeling overwhelmed by one's emotions, such as frustration and anger at work, irritability and inability to control emotions;
- Psychological distress: Physiological symptoms as a result of psychological problems (such as sleep problems, muscle tension, weight fluctuations and sensory overload);
- Psychosomatic symptoms: Physical complaints that cannot be explained by another illness, which are exacerbated or result from psychological problems (such as palpitations, headaches and digestive problems).

The variable 'Coping through humour' in this research represents the frequency of using coping mechanisms to manage occupational stress using a sense of humour. This variable represents the overall score obtained on the Coping through Humour Questionnaire.

Also from the administration of the aforementioned inventory, the variables „antecedent-focused humor coping”, „response-focused humor coping”, „affiliative-focused humor instrumental coping”, and „aggressive-manipulative-focused humor instrumental coping” are derived, the interpretations of which are given in the following paragraphs:

- Antecedent-focused humor coping refers to a type of humor that depends on the context of a situation, often emphasizing the events leading up to a funny situation rather than focusing on the conclusion itself. In other words, humor revolves around the previous events or conditions (antecedents) that create a funny situation;
- Response-focused humour coping refers to a strategy in which individuals use humour to manage stress, challenges or difficult situations after they have occurred. This style often includes



identifying the funny side of a situation by making jokes or adopting a humorous perspective as a way of emotional regulation;

- Affiliative humor coping refers to a coping mechanism in which individuals use humor as a means of strengthening social connections, fostering relationships, and affiliating with others in stressful or challenging situations. This type of humor serves as a tool for strengthening social bonds and is used to create an atmosphere of camaraderie and support;

- Aggressive-manipulative instrumental humour coping refers to a style of humour use in which individuals take a strategic and assertive approach to achieving personal goals or manipulating situations. Unlike affiliative humour, which focuses on building social connections, this type is more self-oriented and the individual aims to control or influence others through humour.

2.5. Results

In order to establish the correlations proposed in the hypotheses, it is necessary to calculate the normality of the distributions for the working variables.

Table 1. Normality of score distributions for the study variables.

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Burnout_general	.113	26	.200*	.972	26	.676
Exhaustion	.095	26	.200*	.983	26	.935
Mental_detachment	.286	26	.000	.857	26	.002
Cognitive_impairment	.109	26	.200*	.960	26	.385
Emotional_impairment	.103	26	.200*	.975	26	.762
Psychological_distress	.142	26	.191	.951	26	.248
Psychosomatic_symptoms	.118	26	.200*	.952	26	.258
Coping_general	.122	26	.200*	.974	26	.733
Antecedent_focused	.086	26	.200*	.981	26	.899
Response_focused	.127	26	.200*	.980	26	.866
Affiliative	.092	26	.200*	.957	26	.339
Aggressive_manipulative	.187	26	.020	.897	26	.013

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

According to Table 1, it can be seen that the variables „Mental_distance” and „Aggressive_manipulative” show non-parametric distributions of scores because the Sig coefficient does not exceed the .05 threshold. The rest of the variables show parametric distributions because the Sig coefficient exceeds the .05 significance value. We will take these results into account when choosing the methods of calculation for correlations.

Table 1. Hypothesis 1 Correlation

		General coping
General Burnout	Pearson Correlation	.290
	Sig. (2-tailed)	.151
	N	26



Hypothesis 1 is not validated. There is no significant correlation between the overall level of burnout and the overall score on the humor coping inventory, as the Sig significance coefficient exceeds .05.

Table 2. Hypothesis 2 Correlation

		Aggressive_ manipulative	
Spearman's rho	General Burnout	Correlation Coefficient	.413*
		Sig. (2-tailed)	.036
		N	26

According to Table 3, we can state that there is a positive correlation between the general level of burnout and the aggressive-manipulative instrumental coping style, which confirms hypothesis 2.

Table 3. Hypothesis 3 Correlation

		Affiliative
General Burnout	Pearson Correlation	.013
	Sig. (2-tailed)	.949
	N	26

No correlation is identified between the variables general burnout and instrumental coping through affiliation, the third hypothesis is not validated.

Table 4. Hypothesis 4 Correlation

Correlations						
			Antecedent_ focused	Response_ focused	Affiliative	Aggressive_ manipulative
Spearman's rho	Mental_ detachment	Correlation Coefficient	.411*	.559**	.250	.593**
		Sig. (2-tailed)	.037	.003	.218	.001
		N	26	26	26	26

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

2.6. Interpretations

We proposed Hypothesis 1, according to which there is a positive correlation between the overall level of burnout and the overall score on the humor coping inventory, based on the idea that the presence of stress symptoms leads to the development of coping mechanisms designed to manage the negative state of the psyche, one of these mechanisms being humor. According to the results in Table 2, there is no significant correlation between these two constructs.

The result obtained does not overlap with findings that other researchers in the field have presented. Canestrari et al. (2021), in conducting a study on the same topic, demonstrated that healthcare employees who reported higher use of humor-based coping strategies tend to perceive work situations as less stressful compared to those who reported lower use of humor as a coping mechanism.

Hypothesis 2, in which we assumed a positive correlation between overall burnout level and aggressive-manipulative instrumental coping style, was validated (as shown in Table 3), with a medium correlation between the 2 variables.



Aggressive-manipulative humour coping involves a strategy in which a person manages stress, tension or difficulties through humour involving sarcasm, irony or other elements that may negatively affect others. This form of humour tends to be directed at others in a more aggressive way and may have the potential to create discomfort or tension in interpersonal relationships. Taking this operationalization of the concept, we can consider that it is a strategy that people would resort to under conditions of higher stress, a situation in which the level of frustration tolerance decreases and individuals become more impulsive and aggressive (Queiros, Kaiseler, & Da Silva, 2013).

Hageman (2014), in his doctoral dissertation on stress and coping through humor among emergency department employees, demonstrated that aggressive humor is directly correlated with psychological distress.

In formulating hypothesis 3, we assumed that there is a negative correlation between the general level of burnout and instrumental coping through affiliation, since, unlike the aggressive-manipulative type of humour, the affiliative type of humour has positive characteristics, representing a constructive, problem-solving and social relationship-building oriented mode. This coping mechanism involves using humour to improve mood, manage stress and build positive connections with others. We considered that a lower level of stress would facilitate the emergence of coping mechanisms with sanogenic functions, such as the one described above. Orientation towards strengthening social relationships falls within the scope of prosocial behaviours. According to Nitschke, Forbes and Lamm's (2022) meta-analysis, which studied the relationship between prosocial behaviour and stress through the lens of 23 studies, there is no relationship between these 2 variables. It is possible that this is the reason for disproving the hypothesis.

The last hypothesis, which concerns the relationship between mental distancing and scores on coping types assessed by the Humor Coping Questionnaire, was partially validated. Positive correlations were found between mental distancing and antecedent-focused coping, response-focused coping and aggressive-manipulative coping. Between mental distancing and affiliative coping, however, there was no correlation.

We have assumed that there is a relationship between these constructs because mental distancing involves withdrawal into oneself and aversion to work that manifests itself in a cynical attitude that is sometimes materialized by avoidance of social contact. This operationalization of the variable denotes cognitive as well as emotional and social components. These components make the mental distancing variable a complex variable of the questionnaire, as it encompasses the 3 functioning areas regulating psychological balance. Our hypothesis was partially validated, meaning that the assertion about the importance of the mental distancing variable was correct.

Conclusions

In conclusion, the results of our study provide a new perspective on the complex relationships between professional burnout and different coping strategies using humor in nurses. Although the initial hypothesis of a positive correlation between overall burnout level and overall score on the humorous coping inventory was not confirmed, this may be due to sampling or differences in the populations studied.

We found that aggressive-manipulative humor is associated with higher levels of burnout, supporting the observations of other researchers such as Hageman (2014). This type of humor,



involving sarcasm and irony, appears to be a coping strategy adopted in situations of intense stress and may contribute to increased levels of tension in interpersonal relationships.

In contrast, the hypothesis of a negative relationship between burnout levels and instrumental coping through affiliation was not validated. This result suggests that, in occupational health, targeting the strengthening of social relationships through humor may not be an effective strategy for reducing burnout levels.

In a broader context, the study reveals positive correlations between mental distancing and various types of coping through humour, including aggressive-manipulative coping. This indicates that individuals who exhibit mental detachment may tend to resort to humorous coping strategies involving sarcasm and irony, which can contribute to a vicious cycle of stress and tension.

Overall, understanding these complex dynamics between burnout, humor coping, and mental distancing can provide valuable insights for developing strategies to manage stress in the workplace and improve the occupational health of healthcare workers.

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