

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Exploring Mental Health Status and Coping Mechanisms Among Medical Officer III at Selected Level 2 Hospital in Bukidnon

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ABSTRACT

Background: In recent years, the mental health of healthcare professionals has garnered increasing attention, catalyzed by global health crises such as the COVID-19 pandemic (Kang et al., 2020).

Methods: The methodology adopts a descriptive-correlational quantitative approach with data taken from Medical Officers III from selected level 2 Hospital in Bukidnon.

Results: The study involves 25 participants aged 29-58, with an average age of 39.50 years and a standard deviation of 7.787, indicating a moderately diverse middle-adult group. This age range, crucial for mental health, includes significant life reassessments and stressors. The sample is predominantly female (83.3%), which may influence mental health outcomes and coping strategies, as women generally experience higher anxiety and use more emotion-focused coping. The range of professional experience (1-25 years) suggests varied stress experiences and coping abilities. Participants report general life satisfaction but also significant emotional distress, including loneliness and anxiety. The Coping Skills Knowledge Test reveals strong beliefs in proactive coping strategies and personal agency. Correlations between age, gender, years of service, and mental health or coping skills are weak and not statistically significant, indicating these factors may not strongly determine mental health or coping in this group. The findings highlight the complexity of mental health in midlife and underscore the importance of considering demographic factors in stress management and coping strategies.

Keywords: Mental Health, Selected Level 2 Hospital

INTRODUCTION

In recent years, the mental health of healthcare professionals has garnered increasing attention, catalyzed by global health crises such as the COVID-19 pandemic (Kang et al., 2020). Healthcare workers, particularly those in high-stress positions like Medical Officers, face unique mental health challenges due to the nature of their work, which often involves high-stakes decision-making, emotional labor, and exposure to human suffering and death (Pollock, et al., 2020). These challenges are likely magnified in settings like the Bukidnon Provincial Medical Center, which operates in a region with distinct socioeconomic and cultural dynamics.

Medical Officer III in the Philippines refers to a specific rank within the healthcare system, typically involving significant clinical and administrative responsibilities (Civil Service Commission, 2019). Professionals in these roles are often at the forefront of patient care, making their mental health a crucial factor in their well-being and the quality of healthcare delivery. The mental health status of these officers and their coping mechanisms thus become a vital area of inquiry, bearing implications for healthcare policy, occupational health interventions, and the overall functioning of healthcare systems.

Background of the Study

The rationale for focusing on the mental health status and coping mechanisms among Medical Officers III at the coping mechanisms among Medical Officers III at a selected Bukidnon encompasses several critical dimensions that underscore the importance of this research. Firstly, the unique occupational stressors and challenges faced by healthcare professionals, particularly in provincial settings, warrant a comprehensive understanding. In provincial healthcare environments, medical officers often grapple with a multitude of stress factors, including resource constraints, high patient loads, and potential isolation from specialized support systems. This is accentuated in regions like Malaybalay City, where geographic and cultural characteristics may further compound the complexities of healthcare delivery (Baticulon et al., 2021).

The implications of these stressors on the mental health of Medical Officers are profound. Studies have consistently shown that healthcare professionals' mental well-being directly influences patient care quality. For instance, conditions such as burnout, anxiety, and depression, prevalent among medical staff, have been linked to lower patient satisfaction, increased error rates, and diminished overall healthcare efficiency (Shanafelt et al., 2012).

Furthermore, the personal consequences for these professionals, including impacts on their physical health, job satisfaction, and turnover rates, are significant (Dyrbye et al., 2017). This interconnection highlights the need for a focused exploration into the mental health status and coping mechanisms of these professionals.

Additionally, examining the coping strategies employed by Medical Officers in response to these stressors is crucial. Coping mechanisms can range from adaptive strategies, such as seeking social support and professional counseling, to maladaptive ones, like substance abuse or disengagement from work (Folkman & Moskowitz, 2004). Understanding these strategies is essential for developing targeted interventions to support healthcare professionals, enhancing their well-being and efficacy in their roles.

Finally, this research holds substantial societal and policy-level significance. Healthcare systems globally are increasingly recognizing the importance of supporting the mental health of their workforce, especially in the wake of challenges like the COVID-19 pandemic (Kang et al., 2020). Insights gleaned from this study could inform policies and programs aimed at improving healthcare worker well-being, thus contributing to more resilient and effective healthcare systems. This is particularly relevant in provincial settings like Malaybalay City, where healthcare systems may face unique challenges in terms of resources and access.

Theoretical Framework

The Job Demands-Resources (JD-R) Model, introduced by Demerouti et al. (2001), provides a robust theoretical foundation for exploring the mental health status and coping mechanisms among medical professionals.

For Medical Officers at the Bukidnon Provincial Medical Center, the job demands are multifaceted. These include high patient volumes, complex cases, emotional labor, administrative duties, and possibly limited resources due to the provincial setting (Bakker & Demerouti, 2017)

In terms of coping mechanisms, the JD-R Model implies that medical officers might employ various strategies to balance the demands of their roles and the resources available. These coping mechanisms can be either problem-focused, aimed at changing the situation, or emotion-focused, aimed at managing emotional distress (Carver et al., 1989). For example, seeking peer support or engaging in continuous professional development could be seen as proactive coping strategies in line with the resources stipulated by the JD-R Model.

Applying the JD-R Model to this study provides a structured approach to examining the specific challenges and supports experienced by Medical Officers III. It allows for a systematic exploration of how various job demands and resources interact to affect mental health and coping strategies. This understanding can inform targeted interventions aimed at enhancing job resources or reducing job demands. For instance, strategies might include improving organizational support, fostering a supportive work culture, or providing access to mental health resources.

Conceptual Framework

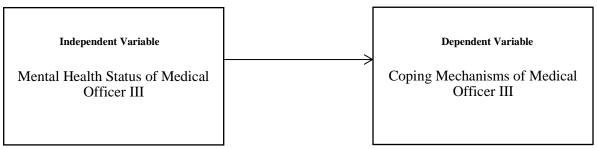


Figure 1. Conceptual Framework

In exploring the mental health status and coping mechanisms among Medical Officer III at Bukidnon Provincial Medical Center in Malaybalay City, as depicted in Figure 1, the conceptual framework adopts a structured approach to understand the multifaceted interactions between various factors impacting these healthcare professionals. The framework is built on the premise that the mental health and coping strategies of these individuals are influenced by a combination of independent variables (IVs), with certain moderating variables (MVs) shaping the nature and extent of these influences.

At the core of this framework are the job demands and stressors, which serve as significant independent variables. These stressors encompass the workload, complexity of patient care, and the emotional and physical demands inherent in medical practice. The demanding nature of healthcare, especially in a high-pressure environment like BPMC, is expected to have a direct impact on the mental health status of Medical Officer III. The stress arising from handling critical cases, making quick decisions under pressure, and the constant need to provide high-quality care can lead to various mental health challenges, including stress, anxiety, and even depression. Understanding the intensity and frequency of these stressors is crucial for comprehensively assessing their impact on mental health.

General Objectives

This study aims to Explore mental health status and coping mechanisms among Medical Officer III at selected level 2 hospital in Bukidnon

Specific Objectives

- 1. To determine the demographic profile of the respondents, in terms of;
 - 1.1 Age
 - 1.2 Gender
 - 1.3 Length of Service
- 2. To determine the prevalent mental health status among Medical Officer III at Selected Level 2 Government hospital in Malaybalay, Bukidnon from MARCH 2024 MAY 2024, in terms of;
 - 2.1 Levels of stress and burnout
 - 2.2 Symptoms of anxiety and depression
 - 2.3 General psychological well-being
- 3. To determine the coping mechanisms employed by Medical Officer III at Selected Level 2 Government hospital in Malaybalay, Bukidnon using Coping Skills Knowledge Test questionnaire.
- 4. To determine if there is significant relationship in the demographic profile, prevalent mental health status, coping mechanisms and demographics of the participants in terms of; Age, Gender, and Length of Service.
- 5. To be able to create a plan based on the findings of the study.

METHODOLOGY

Study Design

The design adopted is a descriptive-correlational quantitative study. This design is particularly suited for this research due to its ability to systematically describe the mental health status and coping mechanisms of medical officers and to explore the relationships between various variables within this context.

Descriptive research is primarily concerned with describing the characteristics of a population or phenomenon. In the context of this study, involves quantifying and detailing the mental health status – such as levels of stress, anxiety, and burnout – and the coping mechanisms of Medical Officer III. This method provides a comprehensive overview of the current state of mental health and the strategies used to manage work-related stressors in this specific group. One of the strengths of descriptive research is its ability to provide a detailed, factual account of the situation as it currently exists. According to Polit and Beck (2004), this type of research is essential for obtaining accurate and systematic information that forms the basis of sound decision-making and planning.

The correlational component of the research design is equally significant. This aspect seeks to identify and analyze the relationships between different variables, such as the link between job demands and stress levels or the connection between available coping resources and burnout rates. Correlational research does not infer causation but rather indicates the direction and strength of relationships between variables (Cohen, Manion, & Morrison, 2007). In the healthcare setting, understanding these relationships is vital as it helps in identifying factors that may contribute to or mitigate mental health challenges.

Research Locale

Bukidnon, characterized by its mountainous terrain and agricultural lands, presents unique healthcare challenges and opportunities. The province is known for its rural character, with much of the population engaged in agriculture. This rural backdrop influences the type of healthcare services needed and how they are delivered. BPMC, therefore, not only provides general medical services but also has to cater to health issues specific to rural and agricultural settings, which may include occupational health-related problems, tropical diseases, and conditions resulting from limited access to healthcare.

Malaybalay City, as the capital of Bukidnon, is more urbanized than the surrounding areas but still retains many characteristics of a provincial city. This means that while BPMC is equipped with essential healthcare facilities and services, it might not have the same level of resources or specialized personnel as hospitals in larger, more urbanized cities.

The demographic composition of Malaybalay City and the broader Bukidnon region significantly influences the nature of healthcare delivery at BPMC. The presence of various indigenous communities introduces cultural and linguistic variables that healthcare providers must navigate. Medical Officer III and other healthcare staff must be adept not only in their medical expertise but also in culturally competent care, adapting their practices to meet the diverse needs of the patients they serve.

Furthermore, BPMC operates within the Philippine healthcare system, which has its distinct structure and challenges. In the Philippines, public healthcare facilities like BPMC often grapple with issues such as underfunding, overcrowding, and limited access to cutting-edge medical technology (Dayrit et al., 2018). These systemic issues can compound the stressors faced by healthcare professionals and impact their mental health and coping strategies.

Instruments

Two essential questionnaires are adopted: the Rand Mental Health Inventory (RMHI), authored by Ware et al. (1980), and the Coping Inventory for Stressful Situations (CISS), authored by Endler et al. (1990).. These instruments are carefully chosen for their relevance and proven effectiveness in measuring mental health status and coping mechanisms, which are crucial aspects of the study.

Limitations of the Study

The study is subject to several limitations. Firstly, the research is confined to Medical Officer III at a single provincial medical center. This specific focus, while beneficial for in-depth analysis, may limit the generalizability of the findings to other medical officers, healthcare settings, or regions. The experiences and coping mechanisms of healthcare professionals can vary widely based on their work environment, role, and cultural background. Thus, the findings of this study may not be fully representative of other medical officers or healthcare settings, particularly those in urban or differently structured healthcare systems.

Another limitation is the reliance on self-reported measures for assessing mental health status and coping mechanisms. While self-report surveys and questionnaires are valuable tools for gathering personal experiences and perceptions, they can be subject to biases such as social desirability bias or recall bias. Participants may underreport their stress levels or overstate their coping abilities, which can impact the accuracy of the data. Furthermore, mental health status are complex and multi-dimensional, and capturing their full extent through self-report tools can be challenging.

The study also does not incorporate longitudinal data, which limits its ability to assess changes in mental health states and coping mechanisms over time. The cross-sectional nature of the research provides a snapshot of the mental health and coping strategies at a particular point but does not account for how these might evolve with changes in the work environment, personal life circumstances, or broader societal factors. Longitudinal studies would be beneficial in understanding the dynamics of mental health and coping mechanisms among healthcare professionals.

Data Analysis

The first level of analysis involves descriptive statistics. This step is crucial for providing an overview of the sample and understanding the basic features of the data collected. Descriptive statistics will include measures of central tendency (mean, median) and measures of variability (standard deviation, range) for all quantitative variables. For instance, the average levels of stress, anxiety, and depression among the respondents will be calculated.

Frequency distributions will be used for categorical data, such as the distribution of different coping strategies employed by the respondents. Descriptive statistics provide a foundational understanding of the data and are instrumental in addressing the study's first problem statement regarding the prevalence of certain mental health states and coping mechanisms.

Ethical Consideration

One of the foremost ethical considerations is obtaining informed consent from all participants. This involves providing clear, comprehensive information about the study's purpose, procedures, potential risks and benefits, and the voluntary nature of participants. Participants should be made aware that they have the right to withdraw from the study at any point without any negative consequences. The consent form must be understandable, avoid technical jargon, and should include contact information for the research team for any queries or concerns. Informed consent respects the autonomy of the participants and ensures that they are participating willingly and with full knowledge of the study.

Confidentiality and anonymity are crucial, especially given the sensitive nature of the information being collected. All data should be coded, and personal identifiers should be removed to ensure anonymity. Information about individual participants must not be disclosed without their explicit consent. Strict data security measures should be in place, including secure storage of data and controlled access. Confidentiality not only protects the participants' privacy but also encourages honest and open responses.

RESULTS AND DISCUSSION

- 1. The demographic profile of the Respondents according to;
 - a. Age
 - b. Sex
 - c. Years of service

Statistical tool: Frequency tool, Percentage

Demographic Profile in terms of Age, Sex and Years of Service

Table 1. Demographic Profile of the Respondents according to Age.

Descript	Descriptive Statistics							
	N	Minimum	Maximum	Mean	Standard Deviation			
Age	25	29	58	39.50	7.787			

Table 1 presents age-related descriptive statistics, and it can be observed that the sample comprises 25 individuals, with ages ranging from 29 -to 58 years. The average age of the participants is 39.50 years, with a standard deviation of 7.787. This spread suggests a moderately diverse age group within the middle-adult bracket. The significance of this age range in the context of mental health and occupational stress is noteworthy.

Research has shown that midlife, typically classified as ages 40-65, is a period often marked by significant life reassessments and potntial stressors (Lachman, 2004). This stage of life encompasses a wide array of experiences, including career progression, family responsibilities, and the onset of health-related concerns, which can all impact mental well-being.

Table 2. Demographic profile of the Respondents according to Gender.

Gender						
		Frequency	Percent	Valid Percent	Cumulative Percent	
	Female	21	83.3	83.3	83.3	
Valid	Male	4	16.7	16.7	100.0	
	Total	25	100.0	100.0		

Table 2 provides an overview of the gender distribution among the study participants, revealing a significant imbalance with a predominantly female representation. Out of the 25 participants, 21 are female, accounting for 83.3% of the sample, while only 4 are male, making up 16.7%. This skewed distribution towards female participants has implications for understanding the mental health states and coping mechanisms within this specific group.

The predominance of female participants is particularly relevant in the context of mental health research. Studies have consistently shown gender differences in both the prevalence and types of mental health issues, as well as in coping strategies. For instance, women are generally more likely to experience anxiety and depression compared to men (Albert, 2015). They also tend to use more emotion-focused coping strategies, such as seeking social support, compared to men who are more likely to use problem-focused strategies (Tamres, Janicki, & Helgeson, 2002). Therefore, the high percentage of female participants in this study could suggest a greater focus on emotion-oriented coping mechanisms and potentially higher levels of reported stress or emotional difficulties.

Table 3. Demographic profile of the Respondents according to Years of Service.

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Standard Deviation	
Years of Service	25	1	25	9.75	6.594	

Table 3 focuses on the 25 study participants, showcasing a broad range of professional experience within the group. The data spans from a minimum of 1 year to a maximum of 25 years of service, with an average of 9.75 years, accompanied by a standard deviation of 6.594. This variability in the length of service offers important insights into the professional background of the sample and its potential impact on mental health and coping strategies.

The wide range of service years indicates a mix of relatively new and highly experienced professionals. Newer professionals, with fewer years in the field, may face challenges such as adapting to the demands of the healthcare sector, developing their professional identity, and managing the stress of a steep learning curve (Kramer, 1974). In contrast, those with many years of service might deal with different types of stressors, such as maintaining enthusiasm and motivation, coping with long-term exposure to work-related stress, and managing changes in the healthcare system over time (Maslach & Leiter, 2016).

The mean service years of 9.75 points towards a sample that is, on average, not in the earliest stages of their careers, but potentially in the mid-phase where they are likely to have developed some level of expertise and coping mechanisms to deal with occupational stress.

- 2. Results of the tests given to the respondents;
- a. Rand Mental Health Inventory (RMHI)
- b. Coping Inventory for Stressful Situations (CISS)

Statistical tool: Frequency tool, Percentage

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Table 4. Results of the Rand Mental Health Inventory (RMHI)

Descriptive Statistics					
	Mean	Interpretation	Standard Deviation		
How happy, satisfied, or pleased have you been with your personal life during the past month?	2.25	Generally happy or satisfied, leaning towards very happy.	0.754		
How much of the time have you felt lonely during the past month?	4.33	Frequently felt lonely.	1.231		
How much of the time have you felt that the future looks hopeful and promising?	2.25	Generally felt hopeful and promising about the future.	0.754		
How much of the time has your daily life been full of interesting things?	2.17	Found daily life moderately interesting.	0.835		
How much of the time did you feel relaxed and free from tension?	2.92	Moderately relaxed, not consistently tension-free.	0.793		
How much of the time have you generally enjoyed the things you do?	2.42	Moderately enjoyed activities.	1.084		
How much of the time have you felt loved or wanted?	2.25	Generally felt loved or wanted.	1.288		
How much of the time have you been a very nervous person?	3.92	Often felt very nervous.	0.996		
How much of the time have you felt tense, or "high-strung"?	3.42	Often felt tense or high-strung.	1.240		
How much of the time have you felt calm and peaceful?	2.75	Moderately felt calm and peaceful.	0.622		
How much of the time have you felt emotionally stable?	2.42	Moderately emotionally stable.	0.669		
How much of the time have you felt downhearted and blue?	4.08	Often felt downhearted and blue.	1.165		
How much of the time were you able to relax without difficulty?	2.67	Moderately able to relax without difficulty.	0.651		

How much of the time did you feel that your love relationships, loving and being loved were complete?	1.92	Less often felt completeness in love relationships.	0.793
How much of the time has living been a wonderful adventure for you?	2.08	Occasionally saw life as a wonderful adventure.	0.900
How much of the time have you felt restless, fidgety or impatient?	4.33	Frequently felt restless, fidgety, or impatient.	0.985
How much of the time have you been moody or brooded about things?	3.83	Often felt moody or brooded about things.	1.030
How much of the time have you felt cheerful or light-hearted?	2.33	Moderately felt cheerful or light-hearted.	0.778
How much of the time were you a happy person?	2.33	Moderately happy.	0.778
How much of the time have you been in low or very low spirits?	4.33	Often in low or very low spirits.	1.073
During the past month, have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory?	2.92	Sometimes questioned control over mind and actions.	1.730
Did you feel depressed during the past month?	4.58	Frequently felt depressed.	1.165
During the past month, have you been in firm control of your behavior, thoughts, emotions, or feelings?	1.92	Usually in control of behavior, thoughts, emotions.	0.996
How much have you been bothered by nervousness, or your nerves, during the past month?	4.58	Frequently bothered by nervousness.	1.240
During the past month, did you think about taking your own life?	5.67	Rarely thought about taking own life.	0.888
During the past month, have you been anxious or worried?	4.25	Frequently felt anxious or worried.	1.485
How often during the past month have you been waking up feeling fresh and rested?	2.83	Moderately often woke up feeling fresh and rested.	1.115
During the past month, have you been under or felt you were under any strain, stress, or pressure?	3.50	Often felt under strain, stress, or pressure.	1.314

Table 4, which details the Responses of the participants of the study, provides an intricate portrayal of the mental health status of the participants over the past month. The average responses indicate a complex interplay of emotions and experiences among the participants, encompassing aspects like happiness, loneliness, relaxation, and emotional stability.

The data shows a general trend of happiness and satisfaction in personal life, with an average score of 2.25. This suggests that most participants felt generally happy or satisfied, leaning towards being very happy. Such positive self-assessment of personal life satisfaction is crucial, as it often correlates with lower levels of work-related stress and better coping strategies (Lyubomirsky et al., 2005).

Contrastingly, the high scores in feeling lonely (4.33), being nervous (3.92), feeling tense or high-strung (3.42), and feeling downhearted and blue (4.08) reveal a significant undercurrent of emotional distress. Loneliness, in particular, can be a critical factor affecting mental health, leading to increased risks of depression and anxiety (Cacioppo & Patrick, 2008). The frequency of feeling anxious or worried, with a score of 4.25, aligns with this trend, suggesting a high level of anxiety among the participants. However, it is noteworthy that participants felt moderately optimistic about the future, as indicated by the score of 2.25 for feeling that the future looks hopeful and promising. Such optimism can be a protective factor against the negative impacts of stress and may enhance resilience (Carver et al., 2010).

The ability to relax without difficulty, enjoy activities, and feel emotionally stable received moderate scores, indicating some level of coping capacity in the face of stressors. Nevertheless, the frequent feelings of restlessness and moodiness, coupled with the fact that many felt frequently under strain, stress, or pressure, suggest a considerable emotional burden that might impact their overall well-being and job performance. In terms of maintaining control over behavior, thoughts, emotions, and feelings, the lower score (1.92) indicates that most participants felt they were usually in control, which is a positive sign of effective coping mechanisms in stressful situations (Folkman & Moskowitz, 2004).

Descriptive Statistics					
	Mean	Interpretation	Standard Deviation		
Stress is always unavoidable.	4.00	True	2.000		
Imagining solutions to problems can prevent stress.	4.92	True	1.311		
Talking about feelings makes them always seem worse.	2.42	Not True	1.443		
Instead of thinking about different ways of solving a problem, you should do the first thing that comes to mind.	3.00	Neutral	1.537		
A part of problem-solving is seeing what can go wrong with a plan.	5.08	Totally True	1.240		
Having confidence in your ability to handle different situations is just as important as making a plan to cope.	5.50	Totally True	0.674		
Coping is automatic; we can never choose the way we cope.	2.50	Neutral	1.732		
Watching TV or playing video games are examples of action coping strategies.	5.08	Totally True	0.515		
It is not possible to make yourself feel better.	1.42	Totally Not True	0.669		
Proactive coping means predicting a stressful situation and preventing it from happening.	5.08	Totally True	0.515		
You can always trust your feelings; if you feel offended, there must be a good reason.	4.92	Totally True	0.996		
Changing your feelings is the best response to some types of problems.	4.08	True	1.881		

Table 5. Results of the Coping mechanisms of the Respondents.

Table 5 showcases the outcomes of the Coping Skills Knowledge Test, revealing insights into the participants' understanding and beliefs about coping strategies and stress management. The diverse scores across different statements highlight varying perceptions about coping mechanisms, which are integral to understanding how individuals manage stress and maintain mental health.

A key observation is the recognition that stress is not always unavoidable, with a mean score of 4.00 suggesting a belief that stress can often be managed or mitigated. This aligns with literature suggesting that stress perception significantly influences how individuals approach and handle stressful situations (Lazarus & Folkman, 1984). The high score for 'Imagining solutions to problems can prevent stress' (4.92) and 'Having confidence in your ability to handle different situations is just as important as making a plan to cope' (5.50) indicates a strong belief in proactive and cognitive coping strategies. These findings resonate with research that emphasizes the effectiveness of proactive coping and self-efficacy in stress reduction (Aspinwall & Taylor, 1997).

The participants' moderate disagreement with the idea that 'Talking about feelings makes them always seem worse' (2.42) supports the value of emotional expression and seeking social support, which are key components of effective stress management (Pennebaker, 1997). Additionally, the neutral stance on the immediacy of problem-solving responses (3.00) suggests a balanced view on impulse control and deliberate decision-making in stress management.

Interestingly, the strong agreement with the statement 'A part of problem-solving is seeing what can go wrong with a plan' (5.08) and 'Proactive coping means predicting a stressful situation and preventing it from happening' (5.08) suggests a tendency towards anticipatory and preventive coping mechanisms. This proactive approach is associated with better stress outcomes and is often considered a mature and effective coping strategy (Compas et al., 2001). The recognition that 'It is not possible to make yourself feel better' is widely rejected (1.42), indicating an awareness of personal agency in managing emotions and stress, which is a crucial aspect of resilience and psychological well-being (Bandura, 1997).

3. Correlations between Demographic profiles and Years of Service.

Statistical Tool: Frequency Count, Percentage

Correlations between Demographic profiles and Years of Service.

Table 6. Correlations between Demographic profiles and Years of Service.

Correlations						
Factors		Age	Gender	Years of Service		
	Pearson's r	0.236	-0.139	-0.032		
Mental Health	Significance Level	0.460	0.666	0.921		
	Ν	12	12	12		
	Pearson's r	0.356	0.261	0.257		
Coping Skills	Significance Level	0.255	0.413	0.420		
	Ν	12	12	12		

Table 6 presents the correlation coefficients (Pearson's r) and significance levels for the relationships between various factors like age, gender, years of service, mental health, and coping skills among the study participants.

The correlation between age and mental health (r = 0.236) suggests a weak positive relationship, but it's not statistically significant (p = 0.460), indicating that as age increases, there might be a slight improvement in mental health, but the relationship is not strong enough to be conclusive. The negative correlation between gender and mental health (r = -0.139) indicates a very weak inverse relationship, which is not statistically significant (p = 0.666). This implies that gender has little to no predictive power on the mental health of the participants. The correlation between years of service and mental health (r = -0.032) is negligible and not statistically significant (p = 0.921), suggesting that the length of service has little impact on the mental health of the participants.

The correlation between age and coping skills (r = 0.356) is weakly positive but not statistically significant (p = 0.255). This suggests that older participants might have slightly better coping skills, although the relationship is not strong. The correlation between gender and coping skills (r = 0.261) is weak and not statistically significant (p = 0.413), indicating a minimal relationship between gender and how participants cope with stress. Similarly, the weak positive correlation between years of service and coping skills (r = 0.257) is not statistically significant (p = 0.420), hinting that experience in terms of years of service does not significantly affect coping skills.

Overall, the correlations in Table 6 point to weak relationships between the studied variables and both mental health and coping skills, with none of the relationships reaching statistical significance. This suggests that age, gender, and years of service may not be strong determinants of mental health and coping skills in this particular group of participants.

CONCLUSION

The study aimed to explore the mental health states and coping mechanisms of Medical Officer III at Bukidnon Provincial Medical Center in Malaybalay City, focusing on levels of stress, burnout, anxiety, depression, general psychological well-being, and the various coping mechanisms employed. It also sought to understand the influencing factors on these mental health status and to identify any significant differences in these aspects across different demographics within the participant group.

In terms of prevalent mental health status, the findings indicate a complex landscape. The participants generally reported moderate levels of happiness and satisfaction with their personal lives, suggesting a positive aspect of their mental health. However, this was counterbalanced by high scores in feelings of loneliness, nervousness, tension, and being downhearted and blue. These indicators point towards a notable presence of stress and emotional challenges among the participants. Particularly, the high levels of anxiety and symptoms of depression, as evidenced by the frequent feelings of depression and low spirits, are of concern. These findings align with the broader literature on healthcare professionals, which consistently shows elevated risks of stress, burnout, anxiety, and depression due to the high-pressure nature of their work (Maslach & Leiter, 2016; Shanafelt et al., 2012).

Regarding coping mechanisms, the study uncovered a variety of strategies. The high scores in proactive coping, confidence in handling situations, and recognizing the importance of foreseeing potential problems in a plan underscore a strong inclination towards proactive and preventive coping strategies. The participants exhibited a recognition of the importance of cognitive approaches in managing stress, such as imagining solutions and understanding the dynamics of problem-solving. This proactive coping approach aligns with the literature that underscores the effectiveness of such strategies in reducing stress and improving mental health outcomes (Aspinwall & Taylor, 1997).

The study also examined factors influencing mental health states. While the correlations between age, gender, years of service, and mental health were weak and not statistically significant, these factors still offer insight into the nuanced ways they might impact mental health and coping mechanisms. The lack of significant findings could be attributed to the small sample size and indicates the need for further research with a more extensive participant pool to explore these relationships in depth.

In analyzing the potential differences in mental health states and coping mechanisms across different demographics, the study did not find significant variations. However, the predominance of female participants and the mix of early-career to experienced professionals provide context for interpreting the mental health and coping strategies observed. The female majority may reflect broader gender dynamics within the healthcare profession, where women are often more represented, especially in certain specialties or regions (WHO, 2019).

This study highlights the complex and multifaceted nature of mental health among Medical Officer III at Bukidnon Provincial Medical Center. While there are positive aspects such as general happiness and a tendency towards proactive coping, there are also significant challenges including high levels of stress, anxiety, and depression. The findings underscore the importance of ongoing support and interventions tailored to the needs of healthcare professionals, particularly in high-stress environments. Developing and implementing strategies that foster resilience, such as stress management programs, peer support, and promoting work-life balance, could be beneficial in enhancing the mental health and well-being of medical officers. Additionally, healthcare institutions should consider the unique challenges and stressors faced by their staff and develop targeted initiatives to address these issues. Future research should aim to involve larger and more diverse samples to gain a more comprehensive understanding of these dynamics and to validate the findings of this study.

REFERENCES

- Aclon, M. A. C., Perez-Ambray, M. C., Antiporda, M. C. P., Dizon, M. P. S., Garcia, P. R. B., Lapitan, M. A. A., ... & Ruiz, F. B. (2022). A Literature Review on the Mental Health and Coping Strategies of Healthcare Workers in This Time of Pandemic. International Journal of Multidisciplinary: Applied Business and Education Research, 3(1), 31-39.
- 2. Albert, P. R. (2015). Why is depression more prevalent in women?. Journal of psychiatry & neuroscience: JPN, 40(4), 219–221.

Alwin, D. F., McCammon, R. J., & Wray, L. A. (2006). Aging, cohorts, and verbal ability. Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 61(4), P213-P219.

- Babore, A., Lombardi, L., Viceconti, M. L., Pignataro, S., Marino, V., Crudele, M., ... & Trumello, C. (2020). Psychological effects of the COVID-2019 pandemic: Perceived stress and coping strategies among healthcare professionals. Psychiatry research, 293, 113366.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. Journal of Managerial Psychology, 22(3), 309-328.
- 5. Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. Journal of Occupational Health Psychology, 22(3), 273-285.

- Balbay, O. A., Isikhan, V., Balbay, E. G., Annakkaya, A. N., & Arbak, P. M. (2011). Burnout status of health care personnel working in oncology and their coping methods. HealthMED, 5(4), 730-740.
- Baloran, E. T. (2020). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. Journal of loss and trauma, 25(8), 635-642.
- Baticulon, R. E., Sy, J. J., Alberto, N. R. I., Baron, M. B. C., Mabulay, R. E. C., Rizada, L. G. T., ... & Reyes, J. C. B. (2021). Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines. Medical Science Educator, 31(2), 615-626. https://doi.org/10.1007/s40670-021-01231-z
- Beh, L. S., & Loo, L. H. (2012). Job stress and coping mechanisms among nursing staff in public health services. International Journal of Academic Research in Business and Social Sciences, 2(7), 131.
- Blanchard-Fields, F. (2007). Everyday problem solving and emotion: An adult developmental perspective. Current Directions in Psychological Science, 16(1), 26-31.
- 11. Cabarkapa, S., Nadjidai, S. E., Murgier, J., & Ng, C. H. (2020). The psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: A rapid systematic review. Brain, behavior, & immunity-health, 8, 100144.
- 12. Cacioppo, J. T., & Patrick, W. (2008). Loneliness: Human Nature and the Need for Social Connection. W.W. Norton & Company.
- Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. Psychiatry research, 292, 113312.
- 14. Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. Clinical Psychology Review, 30(7), 879-889.
- Cénat, J. M., Mukunzi, J. N., Noorishad, P. G., Rousseau, C., Derivois, D., & Bukaka, J. (2020). A systematic review of mental health programs among populations affected by the Ebola virus disease. Journal of Psychosomatic Research, 131, 109966.
- Chen, J., Li, J., Cao, B., Wang, F., Luo, L., & Xu, J. (2020). Mediating effects of self-efficacy, coping, burnout, and social support between job stress and mental health among young Chinese nurses. Journal of advanced nursing, 76(1), 163-173.
- Chigwedere, O. C., Sadath, A., Kabir, Z., & Arensman, E. (2021). The impact of epidemics and pandemics on the mental health of healthcare workers: a systematic review. International Journal of Environmental Research and Public Health, 18(13), 6695.
- Chutiyami, M., Cheong, A. M., Salihu, D., Bello, U. M., & Jacob, P. (2022). COVID-19 pandemic and overall mental health of healthcare professionals globally: a meta-review of systematic reviews. Frontiers in psychiatry, 12, 804525.
- 19. Civil Service Commission. (2019). 2019 Qualification Standards Manual. Civil Service Commission.
- 20. Cohen, L., Manion, L., & Morrison, K. (2017). Research design and planning. In Research Methods in Education (pp. 173-201). Routledge.
- Danet, A. D. (2021). Psychological impact of COVID-19 pandemic in Western frontline healthcare professionals. A systematic review. Medicina Clínica (English Edition), 156(9), 449-458.
- 22. Dayrit, M. M., Lagrada, L. P., Picazo, O. F., Pons, M. C., & Villaverde, M. C. (2018). The Philippines Health System Review. Health Systems in Transition, 8(2), 1-322.
- Di Giuseppe, M., Nepa, G., Prout, T. A., Albertini, F., Marcelli, S., Orrù, G., & Conversano, C. (2021). Stress, burnout, and resilience among healthcare workers during the COVID-19 emergency: the role of defense mechanisms. International journal of environmental research and public health, 18(10), 5258.
- Dullius, W. R., Scortegagna, S. A., & McCleary, L. (2021). Coping Strategies in Health Professionals Facing Covid-19. Revista Psicologia: Teoria e Prática, 23(1), ePTPC1913976-ePTPC1913976.
- Dyrbye, L. N., Shanafelt, T. D., Sinsky, C. A., Cipriano, P. F., Bhatt, J., Ommaya, A., ... & Meyers, D. (2017). Burnout among health care professionals: A call to explore and address this underrecognized threat to safe, high-quality care. National Academy of Medicine Perspectives, 37(3), 1-11.
- Dyrbye, L. N., Shanafelt, T. D., Sinsky, C. A., Cipriano, P. F., Bhatt, J., Ommaya, A., ... & Meyers, D. (2017). Burnout among health care professionals: A call to explore and address this underrecognized threat to safe, high-quality care. National Academy of Medicine Perspectives, 37(3), 1-11. https://doi.org/10.31478/201707b
- 27. Endler, Norman S., Parker, James D.A., (1990) Coping Inventory for Stressful Situations (CISS) USA: Multi-Health Systems
- 28. Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. Annual Review of Psychology, 55, 745-774.
- 29. Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. Annual Review of Psychology, 55, 745-774. https://doi.org/10.1146/annurev.psych.55.090902.141456

- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. Annual Review of Psychology, 55, 745-774. https://doi.org/10.1146/annurev.psych.55.090902.141456
- Gibbons, S. W., Shafer, M., Aramanda, L., Hickling, E. J., & Benedek, D. M. (2014). Combat health care providers and resiliency: Adaptive coping mechanisms during and after deployment. Psychological Services, 11(2), 192. https://psycnet.apa.org/record/2013-24729-001
- Heath, C., Sommerfield, A., & von Ungern-Sternberg, B. S. (2020). Resilience strategies to manage psychological distress among healthcare workers during the COVID-19 pandemic: a narrative review. Anaesthesia, 75(10), 1364-1371.
- Hou, T., Zhang, T., Cai, W., Song, X., Chen, A., Deng, G., & Ni, C. (2020). Social support and mental health among health care workers during Coronavirus Disease 2019 outbreak: A moderated mediation model. Plos one, 15(5), e0233831.
- Huang, L., Lei, W., Xu, F., Liu, H., & Yu, L. (2020). Emotional responses and coping strategies in nurses and nursing students during Covid-19 outbreak: A comparative study. PloS one, 15(8), e0237303.
- 35. Huang, L., Xu, F., & Liu, H. (2020). Emotional responses and coping strategies of nurses and nursing college students during COVID-19 outbreak. MedRxiv, 2020-03.
- Huffman, E. M., Athanasiadis, D. I., Anton, N. E., Haskett, L. A., Doster, D. L., Stefanidis, D., & Lee, N. K. (2021). How resilient is your team? Exploring healthcare providers' well-being during the COVID-19 pandemic. The American Journal of Surgery, 221(2), 277-284.
- Jiménez-Picón, N., Romero-Martín, M., Ponce-Blandón, J. A., Ramirez-Baena, L., Palomo-Lara, J. C., & Gómez-Salgado, J. (2021). The relationship between mindfulness and emotional intelligence as a protective factor for healthcare professionals: systematic review. International Journal of Environmental Research and Public Health, 18(10), 5491.
- Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., ... & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. The Lancet Psychiatry, 7(3), e14. https://doi.org/10.1016/S2215-0366(20)30047-X
- Kar, S. K., Yasir Arafat, S. M., Kabir, R., Sharma, P., & Saxena, S. K. (2020). Coping with mental health challenges during COVID-19. Coronavirus Disease 2019 (COVID-19) Epidemiology, Pathogenesis, Diagnosis, and Therapeutics, 199-213.
- Kim, S. C., Quiban, C., Sloan, C., & Montejano, A. (2021). Predictors of poor mental health among nurses during COVID-19 pandemic. Nursing Open, 8(2), 900-907.
- 41. Kourakos, M. (2017). Mental health and coping strategies among nursing staff in public health services. Progress in Health Sciences, 7, 67-73. https://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.ceon.element-16438249-85b8-385d-afd4-8e232aec84b2
- 42. Kramer, M. (1974). Reality Shock: Why Nurses Leave Nursing. Mosby.
- Kriakous, S. A., Elliott, K. A., Lamers, C., & Owen, R. (2021). The effectiveness of mindfulness-based stress reduction on the psychological functioning of healthcare professionals: A systematic review. Mindfulness, 12, 1-28.
- 44. Lachman, M. E. (2004). Development in Midlife. Annual Review of Psychology, 55, 305-331.
- 45. La Torre, G., Raffone, A., Peruzzo, M., Calabrese, L., Cocchiara, R. A., D'Egidio, V., ... & YOMIN Collaborative Group. (2020). Yoga and mindfulness as a tool for influencing affectivity, anxiety, mental health, and stress among healthcare workers: Results of a single-arm clinical trial. Journal of clinical medicine, 9(4), 1037.
- 46. Lazarus, R. S., & Folkman, S. (1984). Stress, Appraisal, and Coping. Springer.
- 47. Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: does happiness lead to success? Psychological Bulletin, 131(6), 803–855.
- 48. Macdonald. John, Turner. Nigel, Somerset. Matthew. (2008). Life Skills, Mathematical Reasoning and Critical Thinking: Curriculum for the Prevention of Problem Gambling. Final Report to the Ontario Problem Gambling Research Centre. Centre for Addiction and Mental Health.
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. World Psychiatry, 15(2), 103–111.
- 50. Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. Annual Review of Psychology, 52(1), 397-422. https://doi.org/10.1146/annurev.psych.52.1.397
- McFadden, P., Ross, J., Moriarty, J., Mallett, J., Schroder, H., Ravalier, J., ... & Gillen, P. (2021). The role of coping in the wellbeing and work-related quality of life of UK health and social care workers during COVID-19. International journal of environmental research and public health, 18(2), 815.
- 52. Mealer, M., Burnham, E. L., Goode, C. J., Rothbaum, B., & Moss, M. (2009). The prevalence and impact of post-traumatic stress disorder and burnout syndrome in nurses. Depression and Anxiety, 26(12), 1118-1126.

- Molehabangwe, K., Sehularo, L. A., & Pienaar, A. J. (2018). Nurses' coping mechanisms in a mental health establishment. Africa Journal of Nursing and Midwifery, 20(2), 19-pages. https://journals.co.za/doi/pdf/10.25159/2520-5293/4066
- Onieva-Zafra, M. D., Fernández-Muñoz, J. J., Fernández-Martínez, E., García-Sánchez, F. J., Abreu-Sánchez, A., & Parra-Fernández, M. L. (2020). Anxiety, perceived stress and coping strategies in nursing students: a cross-sectional, correlational, descriptive study. BMC medical education, 20, 1-9.
- 55. Ornell, F., Halpern, S. C., Kessler, F. H. P., & Narvaez, J. C. D. M. (2020). The impact of the COVID-19 pandemic on the mental health of healthcare professionals. Cadernos de saude publica, 36, e00063520.
- 56. Polit, D. F., & Beck, C. T. (2004). Nursing research: Principles and methods. Lippincott Williams & Wilkins.
- Pollock, A., Campbell, P., Cheyne, J., Cowie, J., Davis, B., McCallum, J., ... & Torrens, C. (2020). Interventions to support the resilience and mental health of frontline health and social care professionals during and after a disease outbreak, epidemic or pandemic: A mixed methods systematic review. Cochrane Database of Systematic Reviews, 2020(11). https://doi.org/10.1002/14651858.CD013779
- 58. Portero de la Cruz, S., Cebrino, J., Herruzo, J., & Vaquero-Abellán, M. (2020). A multicenter study into burnout, perceived stress, job satisfaction, coping strategies, and general health among emergency department nursing staff. Journal of clinical medicine, 9(4), 1007.
- Quynh, H. H. N., Tanasugarn, C., Kengganpanich, M., Lapvongwatana, P., Long, K. Q., & Truc, T. T. (2020). Mental well-being, and coping strategies during stress for preclinical medical students in Vietnam. Journal of Population and Social Studies, 28(2), 116-129.
- 60. Reilly, S. E., Soulliard, Z. A., McCuddy, W. T., & Mahoney III, J. J. (2021). Frequency and perceived effectiveness of mental health providers' coping strategies during COVID-19. Current Psychology, 40(11), 5753-5762. https://link.springer.com/article/10.1007/s12144-021-01683-x
- Riaz, S., Saleem, Y., Hazrat, H., Ahmed, F., Sajid, U., Qadri, S. F., & Rufan, S. (2020). Mental health outcomes and coping strategies among health care workers exposed to coronavirus disease 2019 (COVID-19). International Journal of Endorsing Health Science Research, 8(2), 56-66. https://www.researchgate.net/profile/Hina-H-Khan/publication/342174419_Mental_Health_Outcomes_and_Coping_Strategies_Among_Health_Care_Workers_Exposed_to_Coronavirus_ Disease_2019_COVID-19/links/5f40a57492851cd30214903e/Mental-Health-Outcomes-and-Coping-Strategies-Among-Health-Care-Workers-Exposed-to-Coronavirus-Disease-2019-COVID-19.pdf
- Ricci-Cabello, I., Meneses-Echavez, J. F., Serrano-Ripoll, M. J., Fraile-Navarro, D., de Roque, M. A. F., Moreno, G. P., ... & Gonçalves-Bradley, D. (2020). Impact of viral epidemic outbreaks on mental health of healthcare workers: a rapid systematic review. MedRxiv, 2020-04.
- RilleraMarzo, R., Villanueva III, E. Q., Chandra, U., Htay, M. N. N., Shrestha, R., & Shrestha, S. (2021). Risk perception, mental health impacts and coping strategies during COVID-19 pandemic among Filipino healthcare workers. Journal of public health research, 10(2_suppl), jphr-2021.
- 64. Robles, R., Rodríguez, E., Vega-Ramírez, H., Álvarez-Icaza, D., Madrigal, E., Durand, S., ... & Reyes-Terán, G. (2020). Mental health problems among healthcare workers involved with the COVID-19 outbreak. Brazilian Journal of Psychiatry, 43, 494-503. https://www.scielo.br/j/rbp/a/q4vcynPfdMjvx9JY5qVGg7v/?lang=en&format=html
- Rus, M., Matei, R., Sandu, M. L., Delcea, C., & Siserman, C. (2020). Emotional distress and coping strategies of health care workers during COVID-19 pandemic. Rom J Leg Med, 28(4), 442-450. http://www.rjlm.ro/system/revista/56/442-450.pdf
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. Journal of Organizational Behavior, 25(3), 293-315.
- 67. Semo, B. W., & Frissa, S. M. (2020). The mental health impact of the COVID-19 pandemic: implications for sub-Saharan Africa. Psychology research and behavior management, 713-720.
- 68. Shalaby, R. A. H., & Agyapong, V. I. (2020). Peer support in mental health: literature review. JMIR mental health, 7(6), e15572.
- Shanafelt, T. D., Boone, S., Tan, L., Dyrbye, L. N., Sotile, W., Satele, D., ... & Oreskovich, M. R. (2012). Burnout and satisfaction with worklife balance among US physicians relative to the general US population. Archives of Internal Medicine, 172(18), 1377-1385. https://doi.org/10.1001/archinternmed.2012.3199
- Smallwood, N., Karimi, L., Pascoe, A., Bismark, M., Putland, M., Johnson, D., ... & Willis, K. (2021). Coping strategies adopted by Australian frontline health workers to address psychological distress during the COVID-19 pandemic. General hospital psychiatry, 72, 124-130. https://www.sciencedirect.com/science/article/pii/S0163834321001171
- Spelten, E., Thomas, B., O'Meara, P., van Vuuren, J., & McGillion, A. (2020). Violence against Emergency Department nurses; Can we identify the perpetrators?. PLoS one, 15(4), e0230793.
- 72. Srivatsa, S., & Stewart, K. A. (2020). How should clinicians integrate mental health into epidemic responses?. AMA journal of ethics, 22(1), 10-15.

- Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., & Münter, L. (2021). Prioritizing the mental health and wellbeing of healthcare workers: an urgent global public health priority. Frontiers in public health, 9, 679397.
- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. Personality and Social Psychology Review, 6(1), 2-30.
- Walton, M., Murray, E., & Christian, M. D. (2020). Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic. European Heart Journal: Acute Cardiovascular Care, 9(3), 241-247.
- 76. Ware, J. E., Brook, R. H., Davies, A. R., Williams, K. N., Stewart, A., Rogers, W. H., & Johnston, S. A. (1980). Conceptualization and measurement of health for adults in the Health Insurance Study.
- Wei, H., Kifner, H., Dawes, M. E., Wei, T. L., & Boyd, J. M. (2020). Self-care strategies to combat burnout among pediatric critical care nurses and physicians. Critical Care Nurse, 40(2), 44-53.
- Wong, A. H., Pacella-LaBarbara, M. L., Ray, J. M., Ranney, M. L., & Chang, B. P. (2020). Healing the healer: protecting emergency health care workers' mental health during COVID-19. Annals of emergency medicine, 76(4), 379-384.
- 79. World Health Organization. (2018). Mental health: Strengthening our response. Retrieved from https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response
- Zacher, H., & Frese, M. (2009). Remaining time and opportunities at work: Relationships between age, work characteristics, and occupational future time perspective. Psychology and Aging, 24(2), 487-493.
- Zhang, H., Ye, Z., Tang, L., Zou, P., Du, C., Shao, J., ... & Mu, S. Y. (2020). Anxiety symptoms and burnout among Chinese medical staff of intensive care unit: the moderating effect of social support. BMC psychiatry, 20, 1-7.
- Zhang, W. R., Wang, K., Yin, L., Zhao, W. F., Xue, Q., Peng, M., ... & Wang, H. X. (2020). Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. Psychotherapy and psychosomatics, 89(4), 242-250.
- Ziarko, M., Jasielska, A., Stanisławska-Kubiak, M., Daroszewski, P., Samborski, W., & Mojs, E. (2022). Mental health outcomes associated with COVID-19 pandemic in a group of health care professionals. The Journal of Behavioral Health Services & Research, 49(1), 22-31. https://link.springer.com/article/10.1007/s11414-021-09761-5