JHRS, Vol. 3 (1), 2024
DOI: 10.34002/jhrs.v3i1.58

The Effect of Occupational Stress on the Psychological Well-being of Healthcare Workers: Basis for Stress Management

Kenneth L. Sanido* and Lovely B. Echalar

College of Business Administration and Accountancy,
Mindanao State University – General Santos, Philippines

*Corresponding author: kenneth.sanido@msugensan.edu.ph

Abstract

Stress in the workplace is something that almost every worker experiences. It is not simply the notion of physical labor but also the wear and tear of work on a person's mental health. Long-term and extreme occupational stress can be a severe threat to the psychological well-being of an employee. This research aimed to investigate the effect of occupational stress on the psychological well-being of healthcare workers in General Santos City, Philippines. A simple random sampling method was applied to select respondents from the city's Tertiary Hospitals, and data were gathered using a survey questionnaire. The results revealed that healthcare workers experienced average levels of occupational stress and moderate levels of psychological well-being. Occupational stress significantly influenced psychological well-being, with a moderate positive correlation of 35.8%. This correlation suggests that as occupational stress increases, psychological well-being also tends to increase. However, additional factors contribute to psychological well-being, accounting for 64.2% of the variance. In light of the findings, a "primary-and-secondary-organizational" level of stress management intervention has been developed for the General Santos City, Philippines healthcare staff.

Keywords: *Occupational Stress, Psychological Well-Being, Healthcare Worker, Health Care Provider, Stress Management Intervention, General Santos City, Philippines*

Introduction

Stress often goes unnoticed until it reaches a breaking point. Like diseases, it is wiser to take preventive measures against extreme stress than to manage it when it is too late. Over time, it affects physical aspect and wears down mental health.

Occupational stress is something that almost every worker experiences (American Institute for Preventive Medicine, 2019). The workplace is a possible primary source of stress because people spend so much time in that setting. It is becoming an epidemic in the workplace, impacting many facets of organizational production (Yozgat et al., 2013). Finney et al. (2013) postulate that occupational stress influences 19% to 30% of the total working population, regardless of the kind of job or work sector. Despite occupational stress being a global health problem that affects employees of the 21st century in various workplaces, the level is too high among healthcare providers (Girma et al., 2021). Its magnitude among healthcare workers ranges from 27%-87.4%. Stress levels among healthcare workers are not limited to individuals; they also affect the organization's productivity and the quality of care at large (Girma et al., 2021).

The World Health Organization (WHO) (2020) defines occupational stress as an individual's response to job expectations and pressures that are out of line with their knowledge and abilities and challenge their ability to cope. This indicates that occupational stress results from the mismatch between the employee and the work environment, where expectations are frequently higher than the employee's capabilities (Ahmad et al., 2021). Furthermore, according to WHO (2021), the Philippines has 1,412,187 frontline healthcare personnel as of June 2021. This working group may be vulnerable to psychological constraints due to work-related stress, whose adverse effects are less prominently recognized (Siegrist, 2015). Instead of focusing simply on conventional conceptions of job satisfaction and performance, healthcare workers' psychological well-being and occupational stress must be addressed. Thus, such concerns must be addressed to reduce the weight of

job stress and organizational losses (Siegrist, 2015; Yao et al.,2015).

Conversely, psychological well-being is a vital sign of a healthy life, a positive mental state, happiness, and satisfaction. If an employee has mental illness, it will result in poor behavior at an organizational and personal level (Tiwary et al., 2019). Following the increasing awareness of this concern, on February 11, 2020, the Philippines' Department of Labor and Employment (DOLE) emphasized the necessity of boosting employees' mental wellness through its mandate to create and implement mental health policies and workplace programs. Department Order No. 208, issued by Labor Secretary Silvestre Bello III, provides companies and employees with recommendations for properly integrating mental health programs and policies following RA11036, or the Mental Health Act of 2017 (Department of Labor and Employment, 2020). According to Bello (2020), the order aims to increase mental health awareness and avoid stigma and prejudice among Filipino employees.

Furthermore, it is intended to assist employees with mental health concerns in gaining access to medical health care. This Act has raised awareness of the significance of well-being, making it an essential component of companies' Occupational Safety and Health (OSH) programs and policies.

Long-term and extreme occupational stress can be a severe threat to the psychological well-being of an employee. However, despite the growing awareness of the impact of stress on corporate performance, many organizations still cannot resolve this issue in the best possible way (Shazia, 2016). According to Folkman and Lazarus (1984), transactional stress model theory is a specific interaction between an individual and his surroundings that the individual views as depleting or beyond his resources and damaging his well-being. The approach concentrates on stress management techniques. Folkman et al. (1986) strongly emphasize the relevance of moderators as a link between the immediate and long-term impacts of a stressed individual's environment.

The present research exemplifies awareness that stress is multidimensional and multifaceted (Beheshtifar, 2013). The growing stress among healthcare workers prompted the researcher to become engaged, sensitive, and concerned about the topic's significance. The study centered on the sixth (6th) most populous city in the Philippines, General Santos City since it has become a prime sector for the healthcare industry, with nine (9) primary and tertiary hospitals and more than one thousand healthcare workers. The Tertiary Health care providers situated in the city were inherently a large portion of the target population, which best represents the healthcare workers. Therefore, to accomplish the target of this study, the researcher made a competent effort to identify occupational stress and its effects on the psychological well-being of healthcare workers. Hence, their relationship is adopted to shape a conceptual design to assess which subscales of occupational stress dominantly affect the psychological well-being of healthcare workers in General Santos City, Philippines.

The primary purpose of this study is to investigate which subscales of occupational stress have a substantial effect on the psychological well-being of healthcare workers in General Santos City, Philippines. The following questions consequently fueled the research;

1. What are the Socio-demographic characteristics of the healthcare workers in General Santos City, Philippines in terms of the following:
    1.1 Age;
    1.2 Gender;
    1.3 Level of Position/Designation; and
    1.4 Length of Service?
2. What is the level of occupational stress of healthcare workers in General Santos City, Philippines as measured by the following subscales:
    2.1 Work Overload;
    2.2 Work Underload;
    2.3 Time Pressure;
    2.4 Pressure on the job;
    2.5 Job-Related Health Concerns;
    2.6 Job Barrier Stress;
    2.7 Job Description Conflict;
    2.8 Boredom-Induced Stress;
    2.9 The Problem of Job Security;
    2.10 Communication and Comfort with Superiors; and
    2.11Disagreement and Indecision?
3. What is the level of psychological well-being of healthcare workers in General Santos City, Philippines according to the following subscales:
    3.1 Autonomy;
    3.2 Personal Growth;
    3.3 Self-Acceptance;
    3.4 Purpose in Life;
    3.5 Positive Relationships with Others; and
    3.6 Environmental Mastery?
4. Is there a significant relationship between occupational stress and the psychological well-being of healthcare workers in General Santos City, Philippines?
5. Is there a significant difference in the level of occupational stress when grouped according to the socio-demographic characteristics of

healthcare workers in General Santos City, Philippines?
6. Is there a significant difference in the level of psychological well-being when grouped according to the socio-demographic characteristics of healthcare workers in General Santos City, Philippines?
7. How can Stress Management Intervention be designed to reduce occupational stress?

These are the null hypotheses of the study stated as follows:

Ho_1: There is no significant relationship between occupational stress and the psychological well-being of healthcare workers in General Santos City, Philippines.

Ho_2: There is no significant difference in the level of occupational stress when grouped according to the socio-demographic characteristics of healthcare workers in General Santos City, Philippines.

Ho_3: There is no significant difference in the level of psychological well-being when grouped according to the socio-demographic characteristics of healthcare workers in General Santos City, Philippines.

Materials and Methods

Research Design

This study used a descriptive-correlational research approach derived from a quantitative research design to answer questions about the relationship between measured variables and develop generalizations. Descriptive research generates numerical data, which is analyzed using statistical tests. It is formalized, controlled, and specific, aiming to quantify attitudes, options, and behaviors (Boru, 2018).

This research is best suited for extensive sample groups and is correlational, using various statistical approaches to determine the extent of variables' connections.

Sampling Method

The study involved 228 out of 1,001 healthcare workers from four tertiary hospitals in General Santos City, Philippines, including nurses, medical doctors, and allied health workers.

The researchers used simple random sampling to select respondents, as they were easily accessible and suitable for clinical research due to the demanding environment of healthcare workers. This sampling is a reliable method of obtaining information where every single member of a population is chosen randomly. Each individual has the same probability of being selected to be a part of a sample.

Research Instrument

The self-completion questionnaire is a crucial research instrument used to measure independent and dependent variables. It is cost-effective, time-efficient, and can reach people quicker, eliminating the possibility of interviewer or response bias (Sedgwick, 2013). This method directly influences the research procedure and addresses study goals. The questionnaire comprises the following three sections: Section 1 covered questions concerning the socio-demographic characteristics of the respondents; Section 2 dealt with items on Occupational stress adopted from the American Institute for Preventive Medicine (1983) consisting of eleven (11) subscales, while Section 3 contained items on psychological well-being adopted from the modified version of Ryff's Scales of Psychological Well-Being composed of six (6) subscales (Ryff, 1995). The instrument was validated by two academic personnel and one industry practitioner. It showed high validity on a scale of 4.26, and provided unbiased data, allowing a 6-10% error.

Data Gathering Procedure

The survey questionnaire was distributed to the target population through a link in a Google form, which allowed them to fill it out comfortably and in a stress-free and timely manner. Using the internet to contact respondents, who would have been difficult or perhaps impossible to reach using traditional methods, is one of the many reasons why doing research through online surveys is such an effective strategy and response time was quicker.

Due to the respondents' hectic and demanding environment, a month-long data gathering (March 2023) was allocated to collect ample information from the target population. As this survey was purely online, the researcher also anticipated sampling issues such as response errors, multiple responses, and skipping of unwanted questions. The researcher expected limitations such as difficulty in interpreting the sentiments behind the answers and justifying the identity of the respondents. Nevertheless, carefully evaluating the online survey's benefits outweighed all the disadvantages. The online survey through Google Forms was still promising as it felt less overwhelming to participants, returning a higher completion rate than traditional surveys. It helped the researcher maintain the respondent's anonymity, saved time and effort, cut costs, and finished more in less time.

Data Analysis

The study utilized descriptive and inferential statistical methods to examine the

impact of occupational stress on psychological well-being, using data analysis techniques like Pearson's Product Moment Correlation Coefficient and ANOVA. Occupational stress was measured using a five-point Likert scale. Participants evaluate how each item has applied to them for the last three (3) years, ranging from one (1) as 'Never' and five (5) as 'Always' and interpreted based on the following range shown in Table 1. Psychological well-being was measured using a seven-point Likert scale. Participants evaluated how applicable each topic is to themselves for the last three (3) years, ranging from one (1) as 'strongly disagree' and seven (7) as 'strongly agree.' The range is shown in Table 2.

All statistical calculations used the Statistical Package for the Social Sciences (SPSS). SPSS is functional in processing and analyzing survey data gathered more succinctly and enabled the researcher to draw inferences about the population's demographics based on the data collected from the health care providers of General Santos City, Philippines.

The software helped derive conclusions easily with minimum statistical deviation. Frequency and percentage were used to analyze the respondents' socio-demographic characteristics. On the other hand, weighted mean and standard deviation were used to explore the study's variables.

Inferential statistics were also used to draw conclusions based on extrapolations. They enabled researchers to conclude data by examining the connection between two variables, variations in variables across subgroups, and how numerous independent factors may explain variance in a dependent variable (Guettermen,2019). The hypotheses for this research were measured using Pearson's Correlation and Analysis of Variance (ANOVA). Pearson's correlation measured the magnitude and direction of the relationship between occupational stress and psychological well-being.

It was used since both variables are quantitative and normally distributed, the data have no outliers, and the relationship is linear. Analysis of Variance (ANOVA) determined the significant difference between occupational stress/ psychological well-being and the socio-demographic characteristics of the respondents. The researcher adhered to ethical principles in a study using quantitative methods. They ensured voluntary participation, informed consent, anonymity, confidentiality, data handling and storage, and precision in results. Participants were informed about the study's benefits, risks, and institutional approval. The researcher protected their data by not collecting personal identifying information and storing responses securely. The researcher ensured Data handling and storage, and access was limited and stored on a trusted server. Data-containing papers and files were encrypted and password-protected with a two-year retention period.

The study was free of bias, plagiarism, and research misconduct, ensuring transparency and academic integrity. It also gained an ethics clearance certificate from the University Ethical Board. The researcher also took precautions to avoid rewards for encouraging participation.

Table 1

Quintet Likert Scale Interpretation

Level of Agreement	Range of Mean	Description	Interpretation
5	4.20 – 5.00	Always	It implies that the manifestation of the items concerning Occupational Stress is '**extremely high**.'
4	3.40 – 4.19	Often	It implies that the manifestation of the items concerning Occupational Stress is '**high**.'
3	2.60 – 3.39	Sometimes	It implies that the manifestation of the items concerning Occupational Stress is '**moderate**.'
2	1.80 – 2.59	Rarely	It implies that the manifestation of the items concerning Occupational Stress is '**low**.'
1	1.00 – 1.79	Never	It implies that the manifestation of the items concerning Occupational Stress is '**extremely low**.'

Table 2

Septet Likert Scale Interpretation

Level of Agreement	Range of Means	Description	Interpretation
7	6.16 – 7.00	Strongly Agree	It implies that the items concerning Psychological Well-Being are '**always manifested**.'
6	5.30 – 6.15	Somewhat Agree	It implies that the items concerning Psychological Well-Being are '**usually manifested**.'
5	4.44 – 5.29	A Little Agree	It implies that the items concerning Psychological Well-Being are '**frequently manifested**.'
4	3.58 – 4.43	Neither Agree or Disagree	It implies that the items concerning Psychological Well-Being are '**neutrally manifested**.'
3	2.72 – 3.57	A Little Disagree	It implies that the items concerning Psychological Well-Being are '**occasionally manifested**.'
2	1.86 – 2.71	Somewhat Disagree	It implies that the items concerning Psychological Well-Being are '**rarely manifested**.'
1	1.00 – 1.85	Strongly Disagree	It implies that the items concerning Psychological Well-Being are '**never manifested**.'

Results and Discussion

Socio–Demographic Characteristics of the Healthcare Workers

The socio-demographic characteristics of the healthcare workers in General Santos City, Philippines are described using age, gender, designation, and the number of years in service.

Table 3 illustrates that a slight majority of the employees were 26 – 30 years old at 36.4% and 36 – 40 years old at 28.1%. The figure also portrays that 18% were between the ages 31 – 35 years, and 7.0%, 6.1%, 2.6%, and 1.8% of the employees formed the age range of 41 – 45, 21 – 25, 51 years old above, and 45 – 50 years, respectively. The said healthcare workers have most employees within the youthful and active employment zone. This is consistent with the WHO (2020) evidence which showed that over the last decades, the health sector has become the biggest employer of young people, and employment rates have risen faster for this sector than any other age strata.

Table 4 shows that as to the gender of the healthcare workers, 63.6% are females, and 36.4% are males. The female respondents outnumbered the males by more than 27%. This means that more women in the healthcare workforce are in this field. The predominance of women in the healthcare workforce can be attributed to a combination of historical, societal, and personal factors (Habib et al., 2020).

Historically, caregiving roles, including nursing and midwifery, were considered suitable for women due to societal expectations and

Table 3

Age of the Healthcare Workers

Age	Frequency	Percentage
21 – 25 years old	14	6.1
26 – 30 years old	83	36.4
31 – 35 years old	41	18.0
36 – 40 years old	64	28.1
41 – 45 years old	16	7.0
45 – 50 years old	4	1.8
51 years old and above	6	2.6
Total	**228**	**100.0**

Table 4

Gender of the Healthcare Workers

Gender	Frequency	Percentage
Female	145	63.6
Male	83	36.4
Total	228	100.0

traditional gender roles (Sharma et al., 2016). As healthcare professions evolved, these early roles became a foundation for women's participation in the sector. Healthcare professions also exemplify many of women's natural qualities. Many females flock to this profession because of their inherent capacity to care for another human being. Females are often seen as caring, compassionate, patient, and understanding.

Moreover, nursing thrives on a woman's instinct to nurture. The predominance of women was also supported by WHO (2020), wherein they "Value Gender and Equity in the Global Health Workforce," as they also accounted for women for 67% of the global health and social care workforce. Women are estimated to provide essential health services for around 5 billion people worldwide WHO (2020).

Table 5 shows that, according to designation, 44.7% are allied healthcare workers, including dietitians, therapists, medical assistants, medical technicians, and medical technologists, and 41.7% are nurses. The remaining 13.6% are medical doctors who work as generalists or specialists. Nurses and allied healthcare workers dominate because they are part of a diversified group of clinicians providing high-quality care to patients and clients throughout various care routes and locations (Greiner & Knebel, 2003).

In the case of the number of years in service in Table 6, more than 72% of the healthcare workers have worked in healthcare services for 10 years and below, 25% between 11-20 years, and about 3% have worked for more than 20 years. International Labour Organization (ILO) (2006) attributed this shorter tenure of healthcare workers in the Philippines to a "brain drain." This is a phenomenon of well-educated professionals permanently migrating to developing countries. The common reason for migration given by healthcare workers is that the low and variable wage rates do not allow them to earn "decent living wages."

Occupational Stress

Table 7 describes the level of occupational stress of healthcare workers in General Santos City, Philippines as measured by work overload, work underload, time pressure, pressure on the job, job-related health concerns, job barrier stress, job description conflict, boredom-induced stress, problem of job security, communication and comfort with superiors, and disagreement and indecision. Occupational stress among healthcare workers is a significant concern due to their profession's unique demands and challenges. Healthcare workers, including doctors, nurses, and other healthcare professionals, face high stress daily.

Table 7 shows that as to work overload stress, the mean of 3.76 and a standard deviation of 1.06 are described as often. This indicates that healthcare workers have a high level of occupational stress in terms of work overload. This is consistent with a similar study conducted by ILO (2006) which found that healthcare workers frequently experience heavy workloads, long working hours, and unpredictable schedules. They

Table 5

Designation of the Healthcare Workers

Designation	Frequency	Percentage
Allied Health Worker (Dietitian, Therapist, Medical Assistant, Medical Technician, and Medical Technologist)	102	44.7
Medical Doctor (Generalist and Specialist)	31	13.6
Nurse	95	41.7
Total	228	100.0

Table 6

Number of years in service of the Healthcare Workers

Number of Years in Service	Frequency	Percentage
5 and below	61	26.8
6 - 10 years	104	45.6
11 - 15 years	52	22.8
16 - 20 years	5	2.2
21 - 25 years	4	1.8
26 and above	2	.9
Total	228	100.0

often deal with high patient volumes and complex cases, leading to time pressures and difficulty maintaining a work-life balance.

In the case of work underload stress, the mean of 2.71 and a standard deviation of 1.17 are described as sometimes. This reveals that healthcare workers have moderate levels of occupational stress in terms of work underload stress. It further indicates that they experience a significant amount of time or periods where their workload is lower than they would typically expect or desire (Portoghese et al., 2014).

Moderate underload work can lead to feelings of boredom and lack of engagement among healthcare workers. When there is not enough work to keep them occupied, they may experience a sense of disinterest or frustration, which can affect their motivation and job satisfaction. It may also mean that healthcare workers cannot fully utilize their skills and expertise. This can lead to feelings of underutilization and dissatisfaction, as they may feel their potential is not being maximized. When there is a moderate underload of work, healthcare workers may have fewer opportunities for learning and professional development. Lack of challenging tasks or new experiences can hinder their growth and career advancement.

Nonetheless, findings of similar studies showed that most healthcare workers experience heavier workloads than work underload (Portoghese et al., 2014). Healthcare workers often experience high occupational stress due to time pressure, leading to tight deadlines and difficulty

Table 7

Level of Occupational Stress of Healthcare Workers

Occupational Stress	Weighted Mean	SD	Description	Interpretation
Work Overload Stress	3.76	1.06	Often	High
Time Pressure	3.75	0.99	Often	High
Pressure on the Job	3.71	0.98	Often	High
Job-Related Health Concerns	3.35	0.98	Sometimes	Moderate
Problems of Job Security	3.02	1.01	Sometimes	Moderate
Communication and Comfort with Superiors	2.90	1.15	Sometimes	Moderate
Job Description Conflict	2.88	1.13	Sometimes	Moderate
Boredom-Induced Stressed	2.80	1.11	Sometimes	Moderate
Job Barrier Stress	2.78	1.18	Sometimes	Moderate
Disagreement and Indecision	2.78	1.12	Sometimes	Moderate
Work Underload Stress	2.71	1.17	Sometimes	Moderate
OVERALL MEAN	**3.13**	**0.82**	**Sometimes**	**Moderate**

completing tasks within available time frames. This can result in decreased quality of care, compromising patient safety and outcomes. On the other hand, high job pressure can lead to mental and emotional strain, causing feelings of being overwhelmed, anxiety, and frustration. The constant demands, excessive supervision, and high expectations can lead to feelings of overwhelm, anxiety, and frustration. High job pressure can also impair decision-making abilities, as healthcare workers may struggle to think critically, weigh options, and make sound judgments, which can negatively impact patient care and safety (Koinis et al., 2015).

Healthcare workers experience moderate occupational stress due to job description conflict, with a mean of 2.88 and a standard deviation of 1.13, which causes stress and frustration. Additionally, they experience moderate job-related health concerns, with a mean of 3.35 and a standard deviation of 0.98. These health issues are directly related to their work environment and job responsibilities, causing them to feel uncertain about prioritizing tasks. These findings highlight the need for improved job descriptions and communication to reduce occupational stress. Healthcare workers experience moderate occupational stress due to job barriers, such as limited advancement and undervaluation. Older workers may face challenges due to technological advancements, adapting to new practices, or perceptions of being less competent (McIntosh, 2020). Gender-related barriers, such as gender biases, limited leadership opportunities, and pay disparities, can result in moderate stress and feelings of inequality or discrimination. On the other hand, boredom-induced stress, with a mean of 2.80 and a standard deviation of 1.11, is sometimes experienced by healthcare workers. Studies show that most healthcare workers experience heavy workloads rather than being stressed due to boredom (Portoghese et al., 2014).

The ILO reported that job security is a significant issue among healthcare workers, with many migrating due to low wages and limited social benefits. Poor communication and comfort with superiors are also a concern, with studies showing that poor communication is a top cause of unnecessary hospital mortality. Disagreements and indecisions are also a concern, with studies showing that conflicts can lead to litigation or violence, negatively impacting morale, productivity, and patient care. Overall, the overall level of occupational stress among healthcare workers is moderate, with high levels of stress due to work overload stress, time pressure, and pressure on the job. An organizational stress management intervention was designed for these subscales with high occupational stress levels. However, healthcare workers generally have moderate levels of stress in job-related health concerns, job security, communication and comfort with superiors, job description conflict, boredom-induced stress, job barrier stress, disagreement and indecision, and work underload stress. These subscales can be treated with individual-level interventions to reduce or prevent the impact of occupational stress on healthcare workers.

Psychological Well-Being

The level of psychological well-being of healthcare workers in General Santos City, Philippines is described in terms of autonomy, personal growth, self-acceptance, purpose in life, positive relationships with others, and environmental mastery.

Table 8 shows that healthcare workers have a moderate level of psychological well-being, with slightly high levels of autonomy and moderate levels concerning personal growth, environmental mastery, personal growth, positive relationships with others, and self-acceptance. Autonomy is positively associated with psychological well-being, while low autonomy is expected to significantly harm workers' psychological well-being. Personal growth is a critical predictor of psychological well-being, and self-acceptance is essential for optimal functioning and mental health. Purpose in life is neutrally manifested but is also a significant predictor of psychological well-being. A sense of purpose in life helps reduce depression, and workers who maintain concentration, attention, focus, set realistic goals, and strive to be more holistic serve a higher purpose for themselves and frequently help others. Positive relationships with others are also associated with psychological well-being, especially during the pandemic. Social isolation and loneliness are linked to depression, poorer health, and an increased risk of early death. Environmental mastery is also significant, as a higher degree indicates control over one's surroundings. A mature person with high environmental mastery can relate and interact with different people in different situations and adapt to varying contexts on demand (Ryff, 2015). Overall, healthcare workers have a moderate level of psychological well-being, with slightly high levels of autonomy and moderate levels concerning personal growth, environmental mastery, personal growth, positive relationships with others, and self-acceptance. An organizational level of stress management intervention was crafted for the subscales of psychological well-being that were usually and frequently manifested. However, for a neutrally manifested purpose in life, an individual level of intervention is recommended to eradicate

Table 8

Level of Psychological Well-Being of Healthcare Workers

Psychological Well-Being	Weighted Mean	SD	Description	Interpretation
Autonomy	5.33	1.40	Somewhat Agree	Usually Manifested
Environmental Mastery	4.58	1.59	A little Agree	Frequently Manifested
Personal Growth	4.46	1.70	A Little Agree	Frequently Manifested
Positive Relationships with Others	4.45	1.70	A Little Agree	Frequently Manifested
Self-Acceptance	4.45	1.61	A little Agree	Frequently Manifested
Purpose in Life	4.40	1.54	Neither Agree or Disagree	Neutrally Manifested
Overall Mean	**4.61**	**1.41**	**A little Agree**	**Frequently Manifested**

its effect on the psychological well-being of healthcare workers. In Table 9, Pearson Product Moment Correlation was computed to assess the relationship between occupational stress and the psychological well-being of healthcare workers in General Santos City, Philippines.

The overall result shows a significant relationship between occupational stress and the psychological well-being of healthcare workers, r (278) =.598, p=.000< .05. A p-value of less than .05 indicates a significant relationship between the said variables. An r-value of 0.598 indicates a moderate positive correlation between occupational stress and the psychological well-being of healthcare workers. Hence, the null hypothesis, "There is no significant relationship between occupational stress and the psychological well-being of healthcare workers in General Santos City, Philippines," was rejected.

The variables being evaluated in this instance are psychological health and work stress. In this case, a positive correlation suggests that psychological well-being increases as occupational stress increases. This is congruent with the study of Ravikumar (2022), which denotes that positive psychology, such as efficacy, hope, resilience, and optimism, drives the psychological well-being of healthcare workers and police personnel. Occupational stress and psychological well-being are strongly related, indicating that when the respondents confront occupational stress, they tend to apply more positive psychological vibes to withstand it.

Hollway (1991) states that the two-factor theory found that things affect how individuals think about their work and how happy or unhappy they are with their jobs. Herzberg puts these factors into two groups: factors that motivate and factors that dissatisfy. Most of the time, the things that make people happy are motivators or satisfiers. Motivators come from within and have to do with the job itself (Herzberg et al., 1959). Therefore,

Table 9

Relationship between Occupational Stress and the Psychological Well-Being of Healthcare Workers in General Santos City, Philippines

Correlations		Occupational Stress	Psychological Well-Being
Occupational Stress	Pearson's Correlation	1	.589
	Sig. (2-tailed)		.000
	N	278	278
Psychological Well-Being	Pearson's Correlation	.598	
	Sig. (2-tailed)	.000	
	N	278	278

healthcare workers who experience higher levels of occupational stress may generally exhibit higher favorable effects on their psychological well-being.

It is also noted that the extent of the relationship is moderate. This means that while there is a positive relationship between occupational stress and psychological well-being, other factors may also influence psychological well -being among healthcare workers. With r=.598, the coefficient of determination r^2=.358, means that 35.8% of the variations in the psychological well-being of healthcare workers can be attributed to their occupational stress. The other 64.2% are due to other variables. Further investigation and analysis would be necessary to explore additional factors contributing to psychological well-being and determine the causality or directionality of the relationship between occupational stress and psychological well-being in healthcare workers.

Similarly, occupational stress in terms of work overload, work underload, time pressure, pressure on the job, job-related health concerns, job barrier stress, job description conflict, boredom-induced stress, the problem of job security, communication and comfort with superiors, and disagreement and indecision of healthcare workers significantly influence their psychological well-being.

Finally, findings of related studies presented similar evidence demonstrating the significant relationship between occupational stress and psychological well-being (Koinis et al., 2015). The positive correlation shows that as occupational stress increases, it has a favorable effect on the psychological well-being of healthcare workers. (Koinis et al., 2015).

Table 10 shows that when the healthcare workers are grouped according to age, the overall result of occupational stress shows a significant difference (F=4.77, p=.000). This is also true for occupational stress when the healthcare workers are grouped according to gender (F=-5.938, p=.000), level of position/designation (F=20.093, p=.000) and length of service (F=34.26, p=.000).

The study found that females have higher levels of occupational stress. Significant differences were observed across all socio-demographic characteristics of healthcare workers in General Santos City, Philippines, which corroborates the study of the American Psychological Association (2010) that women attempt to manage stress in very different ways and also perceive their ability to do so and the things that stand in their way in markedly different ways. Findings suggest that while women are more likely to report physical symptoms associated with stress, they are doing a better job connecting with others in their lives, and, at times, these connections are essential to their stress management strategies. This contradicts the null hypothesis that no significant difference exists between occupational stress and socio-demographic characteristics. Similar studies have also found significant demographic differences in factors causing occupational stress among healthcare workers (Yazdi et al., 2023). The mean difference between psychological well-being and socio-demographic characteristics is shown in Table 11.

Overall results show that when the healthcare workers are grouped according to age (F=3.708, p=.002), the result showed the following: gender (F=-2.707, p=.008), level of position/ designation (F=10.047, p=.0000), and length of service (F=9.560, p=.000). Significant differences on the psychological well-being are obtained at 0.01 level. Hence, the null hypothesis, "There is no significant difference between psychological well-being and the socio-demographic characteristic of healthcare workers in General Santos City, Philippines," was rejected. This is similar to the

Table 10

Difference between Occupational Stress and the Socio-Demographic Characteristics of Healthcare Workers in General Santos City, Philippines

ANOVA	Socio-Demographic Characteristics							
	Age		Gender		Level of Position/ Designation		Length of Service	
Occupational Stress	F	p-value	F	p-value	F	p-value	F	p-value
	4.777	.000	-5.938	.000	20.093	.0000	34.26	.000

Note: Significant at 0.01

Table 11

Difference Between Psychological Well-Being and the Socio-Demographic Characteristics of Healthcare Workers in General Santos City, Philippines

ANOVA	Socio-Demographic Characteristics							
	Age		Gender		Level of Position/ Designation		Length of Service	
Psychological Well-Being	F	p-value	F	p-value	F	p-value	F	p-value
	3.708	.002	-2.707	.008	10.047	.000	9.560	.000

Note: Significant at 0.01

study conducted by Peng et al. (2022). It showed that psychological well-being, age, and marital status were significantly associated with life satisfaction, and respondents of advanced age and those married reported increased levels of life satisfaction than their counterparts. Age and marital status were also significantly related to happiness (Peng et al., 2022).

Conclusion

The following conclusions were reached based on the findings: 1. Young (26–30 years old) female nurses or other allied health professionals make up the majority of the workforce, and the majority have been employed for ten (10) years or less. 2. Due to work overload, deadline pressure, and general workplace stress, healthcare workers experience high levels of occupational stress. However, they have moderate levels of health issues related to their jobs, issues with job security, problems with communication and comfort with superiors, conflicts in their job descriptions, stress brought on by boredom, stress related to obstacles in their jobs, conflict and indecision, and stress related to work overload. The average level of occupational stress is experienced by healthcare workers overall. 3. The psychological health of healthcare workers is moderate. In terms of autonomy, they have a somewhat high psychological well-being. 4. The study found a significant relationship between occupational stress and psychological well-being among healthcare workers in General Santos City, Philippines. A moderate positive correlation suggests that as occupational stress increases, its favorable effect on psychological well-being also increases. However, other factors, by 64.2%, may also influence these workers' psychological well-being. 5. The study reveals that occupational stress levels among healthcare workers vary significantly based on age, gender, designation, and service length. However, work overload, time pressure, and job pressure across genders do not show significant differences, suggesting that both males and females experience the same level of stress, with females experiencing higher levels. 6. the healthcare workers' psychological well-being level is significantly different when grouped according to age, gender, designation, and length of service.

The study suggests that organizational stress management interventions can minimize the impact of occupational stress on healthcare professionals. By raising awareness of work-related stressors, such as work overload and time pressure, streamlining processes, and workforce planning and placement, healthcare workers can encourage social change and establish a routine to manage their stress. Focusing on autonomy, personal growth, self-acceptance, and environmental mastery can help improve psychological well-being through training and development and effective onboarding and engagement programs. Improving self-awareness, locus of control, self-efficacy, and social support is crucial for healthcare professionals. Recognizing the energy in their surroundings and recognizing workplace pressures can also help promote positive social change. Healthcare management and senior leaders can work hand in hand and support Human Resource initiatives and leadership to lead and maintain employee comfort and motivation. They can develop effective stress management mechanisms and implement an employee assistance program like a training road map annually for managing stress. Acknowledging and praising individuals through rewards and recognition programs can also foster positive performance. The researcher suggests a secondary intervention to prevent excessive stress and reduce its frequency. This

includes improving decision-making, communication, coaching, career planning, conflict management, and peer-support groups. Job descriptions for healthcare staff may be revised for role clarity. The intervention targets stress reaction stages, allowing healthcare professionals to recognize and treat stressors. The Department of Labor and Employment (DOLE) Philippines may focus on workplace mental health policies and programs, following Department Order No. 208 of 2020. This requirement, already included in the company's Occupational Safety and Health policies and procedures, can be effectively utilized. DOLE's stress management programs can be tailored to various industries' workforce needs. In addition, this study may further explore other stressor variables and comparison with private companies and government institutions as moderators.

Acknowledgments

The researchers acknowledge the hospital administrators and Human Resource Department of Health and Medical Institutions in General Santos City, Philippines, Health Care Workers, Regional Government Health Agencies, and the Mindanao State University General Santos Faculty. This task could not have been completed without the assistance of the following people, who gave their unwavering support.

References

Ahmad, S. N. A., Rasid, S. Z. A., Rasool, M. S. A., & Isa, N. a. M. (2021). Work Stress and its Impact on Employees' Psychological Strain. *International Journal of Academic Research in Business and Social Sciences,* 11 (8). https://doi.org/10.6007/ijarbss/v11-i8/10552

Akintayo D.I. (2012). Occupational stress, psychological well-being, and workers' behavior in manufacturing industries in South -west Nigeria. *Organizational Psychology & Educational Studies*;1(5): 289–294

Alblihed, M., & Alzghaibi, H. A. (2022). The Impact of Job Stress, Role Ambiguity and Work-Life Imbalance on Turnover Intention during COVID-19: A Case Study of Frontline Health Workers in Saudi Arabia. *International Journal of Environmental Research and Public Health*, 19(20), 13132. https://doi.org/10.3390/ijerph192013132

American Institute for Preventive Medicine (2019). Work Stressor Questionnaire. Retrieved from https://healthylife.com/online/fullversion/stresswork-stressorquestionnaire.html. https://doi.org/10.33546/bnj.v3i5.92.s19

American Psychological Association (APA) (2010). Stress in America. Stress and gender. DC: APA. https://doi.org/10.1037/t55067-000

American Psychological Association (APA) (2015). Stress in America, Paying with Our Health. Washington, DC: APA. https://doi.org/10.1037/t55073-000

Australian Psychological Society (APS) (2014). Authored by Casey, L.; Pui-Tak Liang, R. [Eds.] Stress and Well-being Survey 2014. Australia: APS.

Bell, A. S., Rajendran, D., & Theiler, S. (2012). Job stress, well-being, work-life balance and work-life conflict among Australian academics. *E-Journal of Applied Psychology*, 8(1). https://doi.org/10.7790/ejap.v8i1.320

Bernard, H. R., & Bernard, H. R. (2012). Social research methods: Qualitative and Quantitative Approaches. Thousand Oaks, CA: *Sage*. https://doi.org/10.1007/s11577-001-0128-9

Boru, T. (2018). Chapter Five Research Design and Methodology 5.1. Introduction. Retrieved from https://doi.org/10.13140/RG.2.2.21467.62242

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. https://doi.org/10.1016/j.bbih.2020.100144

Cairney, P. (2012). Understanding Public Policy—Theories and Issues. Basingstoke, U.K.: Palgrave Macmillan. https://doi.org/10.1111/padm.12008

Cartwright, S. & Cooper, C. (1997). Occupational Stress: Factors that contribute to its Occurrence and effective management. Workcover Western Australia, https://doi.org/10.4135/9781452233772

Chilean Safety Association (ACHS) (2013). Accidentabilidad laboral en Chile bajó a un mínimo histórico en 2012. Santiago, 19.03.

Choi, E. S., & Ha, Y. (2009). Work-related Stress and Risk Factors among Korean Employees. *Journal of Korean Academy of Nursing*, 39(4), 549. https://doi.org/10.4040/jkan.2009.39.4.549

Choi, K., & Kang, S. (2010). Occupational psychiatric disorders in Korea. *Journal of Korean Medical Science*, 25(Suppl), S87. https://doi.org/10.3346/jkms.2010.25.s.s87

City Government of General Santos (n.d.). About General Santos City. Retrieved from eportal.gensantos.gov.ph/aboutgeneral-santos.

Clausen, T., Pedersen, LRM, Andersen, M.F., Theorell, T. & Madsen, I.E.H. (2022) Job Autonomy and psychological well-being: A linear or a non-linear association? *European Journal of Work and Organizational Psychology*, 31:3, 395-405, https://doi.org/10.1080/1359432X.2021.1972973

Cooper, C. L., & Marshall, J. (1976). Occupational sources of stress: a review of the literature relating to coronary heart disease and mental ill health. *Journal of Occupational Psychology*, 49(1), 11–28. https://doi.org/10.1111/j.2044-8325.1976.tb00325.x

Cooper, C. L. & Marshall, J. (1978). Sources of managerial and white-collar stress. In C.L. Cooper & R. Payne (Eds), Stress at Work (pp. 81-106). Chichester, UK: Wiley. https://doi.org/10.1002/job.4030020311

Cornelio, C. [Coord.] (2013). Primera Encuesta Nacional a Trabajadores, Empleo, Trabajo, Condiciones y Medio Ambiente Laboral Argentina 2009, Informe final. Argentina, SRT, Ministerio de Trabajo, Empleo y Seguridad Social. https://doi.org/10.4321/s0465-546x2012000300004

DeFrank, R. S., & Cooper, C. L. (1987). Worksite stress management interventions: Their Effectiveness and Conceptualization. *Journal of Managerial Psychology*, 2, 4-10. https://doi.org/10.1108/eb043385

Department of Labor and Employment (DOLE) (2020). DOLE mandates mental health Programs in workplaces. Retrieved from https://www.dole.gov.ph/news/dolemandates-mental-health-program-inworkplaces/#:~:text=In%20Department%20Order%20No.,or%20the%20Mental%20Health%20Act.

European Agency for Safety and Health at Work (EU-OSHA) (2009). OSH in figures: Stress at work – facts and figures. Luxembourg: *Publications Office of the European Union*. https://doi.org/10.1016/j.shaw.2021.12.974

Finney, C., Stergiopoulos, E., Hensel, J., Bonato, S., & Dewa, C. S. (2013). Organizational stressors associated with job stress and burnout in correctional Officers: A Systematic Review. *BMC Public Health*. 13, 82. https://doi.org/10.1186/1471-2458-13-82

Ford, M. T., Matthews, R. A., Wooldridge, J. D., Mishra, V., Kakar, U. M., & Strahan, S. R. (2014). How do occupational stressor-strain effects vary with time? A review and a meta-analysis of the relevance of time lags in longitudinal studies. Work & Stress: An *International Journal of Work, Health & Organizations*, 28(1), 9-30. https://doi.org/10.1080/02678373.2013.877096

Frankfort-Nachmias, C., and Nachmias D. (1996). Research Methods in the Social Sciences. London: Arnold. https://doi.org/10.2307/2064803

Girma, B., Nigussie, J., Molla, A. et al., (2021). Occupational Stress and Associated Factors among Health Care Professionals in Ethiopia: A systematic review and Meta-analysis. BMC Public Health. 21, 539. https://doi.org/10.1186/s12889-021-10579-1

Greiner A.C. & Knebel E. (2003). Health Professions Education: A Bridge to Quality. Institute of Medicine (U.S.) Committee on the Health Professions Education Summit. Washington (D.C.), National Academies Press (U.S.)

Herman, A., Williams, D. R., Stein, D. J., Heeringa, S. G., Jackson, P. B., Moomal, H., & Kessler, R. C. (2009). "The South African Stress and Health (SASH) study: 12month and Lifetime Prevalence of Common Mental Disorders." *South African Medical Journal*, 99 (5),339–344. https://doi.org/10.1017/s0033291707001420

International Labour Organization (ILO) (2016). Workplace Stress: A collective challenge. Retrieved from https://www.ilo.org/wcmsp5/groups/publi%20c/---ed_protect/---%20portray/--safework/documents/publication/wcms_%20466547.%20pdf.

Joseph, B., & Joseph, M. (2016). The health of the healthcare workers. *Indian Journal of occupational and environmental medicine, 20 (2)*, 71–72. https://doi.org/10.4103/0019-5278.197518

Koinis, A., Giannou, V., Drantaki, V., Angelaina, S., Stratou, E., & Saridi, M. (2015). The Impact of Healthcare Workers' Job Environment on Their Mental-emotional Health. Coping Strategies: The Case of a Local General Hospital. *Health psychology research*. 3(1), 1984. https://doi.org/10.4081/hpr.2015.1984

Mate Siakwa, G. (2014). Sources of stress and coping strategies adopted by academic Senior Members of the University of Cape Coast. *International Journal of Research In Social Sciences*. 4(2): 3139. https://doi.org/10.6007/ijarped/v3i4/1143

Matthieu, M., and Ivanoff, A. (2006). Using Stress, Appraisal, and Coping Theories in Clinical Practice: Assessments of Coping Strategies After Disasters. Brief Treatment and Crisis Intervention. 6. Psychosocial Factors. *International Journal of environmental research and public health*, 17(13), 4778. https://doi.org/10.3390/ijerph17134778

Mazzola, J. J., Schonfeld, I. S., & Spector, P. E. (2011). What qualitative research has Taught us About occupational stress. Stress and Health, 27(2), 93–110. https://doi.org/10.1002/smi.1386

Menon, N., & Akhilesh, K. (1994). Functionally Dependent Stress among Managers. *Journal of Managerial Psychology*, 9(3), 13–22. https://doi.org/10.1108/02683949410062547

Ministry of Health, Labour, and Welfare (MHLW) (2014). Annual Health, Labor and Welfare Report for the Realization of a Society of Health and Longevity – First Year of Health and Prevention. 2014 Edition. Tokyo: MHLW.

M.K.Loo, Salmiah Mohamad Amin & Nor Saadah Abd Rahman (2015). The Sources and The Impacts of occupational stress among manufacturing workers. International Journal of Current Research and Academic Review. www.ijcrar.com.

Morales-Rodríguez, F. M., Espigares-López, I., Brown, T., & Pérez-Mármol, J. M. (2020). The Relationship between Psychological Well-Being and Gender Differences as Key Determinants of COVID-19 Impact on Well-being, Job Satisfaction and Resilience in Health Care Workers and Staff Working in Academia in the UK During the First Wave of the Pandemic. *Frontiers in Public Health*, 10, 928107. https://doi.org/10.3389/fpubh.2022.928107

Mugenda, O. M. & Mugenda. A.G., (1999). Research methods. Quantitative and qualitative approaches. Acts Press, Nairobi. https://doi.org/10.31274/rtd-180813-8435

National Institute of Safety and Health (NIOSH) (2013). Stress at Work. J.E. Spear Consulting, LP., Magnolia, Texas. 77355.

Obidiegwu, C. (2020). The impact of job stress on employee performance: Evidence from Female Academics at the University of KwaZulu-Natal. Retrieved from https://researchspace.ukzn.ac.za/handle/10413/19789

Organisacion Iberoamericana de Seguridad Social (OISS); Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT) (2012). I Encuesta sobre Condiciones de Trabajo y Salud en Iberoamérica (I ECCTS). Informe general (Estudio cuantitativo).

Ravikumar, T. (2022). Occupational stress and psychological well-being during COVID-19: Mediating role of positive psychological capital. National Library of Medicine

Reynard, A. K., Sullivan, A. B., & Rae-Grant, A. (2014). A systematic review of stress-management interventions for multiple sclerosis patients. *International Journal of M.S.* care, 16(3), 140–144. https://doi.org/10.7224/1537-2073.2013-034

Ryff, C. D., et al. (2010). National Survey of Midlife Development in the United States (MIDUS II), 2004-2006: Documentation of psychosocial constructs and composite Variables in MIDUS II Project 1. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research. https://doi.org/10.3886/icpsr25281.v4

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727. https://doi.org/10.1037/0022-3514.69.4.719

Santana, V., Santana, M. (2011). Costs and impact on productivity in Brazilian industry: Leave of Absence due to accidents and work-related diseases. Brasilia: SESI.

Sekaran, U., and Bougie, R. (2016). Research Methods for Business: A Skill Building Approach. Seventh Edition. United States of America: *John Wiley and Sons, Inc*. https://doi.org/10.1108/lodj-06-2013-0079

Selye, H. (1979). 'The Stress Of My Life: A Scientist's Memoirs.' New York: Van Nostrand Reinhold Company.

Siegrist, J. (2015). Stress at work. In *Elsevier eBooks* (pp. 546–550). https://doi.org/10.1016/b978-0-08-097086-8.73023-6

Shagvaliyeva, S. & Yazdanifard. R. (2014). Impact of Flexible Working Hours on Work-Life Balance. *American Journal of Industrial and Business Management,* 4 20-23. https://doi.org/10.4236/ajibm.2014.410013

Shahsavarani, A. et al., (2015). Stress: Facts and Theories through Literature Review. *International Journal of Medical Reviews*, 2 (2), 21.

Shazia, K. (2016). Impact of Social Support on the Relationship between Stress and Well-Being Among Female Teachers in Pakistan. Retrieved from https://eprints.utm.my/id/eprint/78984/1/S haziaKaziPFM2016.pdf

Stratton, J. (2021). Population Research: Convenience sampling strategies. *Prehospital and Disaster Medicine, 36*(4), 373–374. https://doi.org/10.1017/s1049023x2100064900207

Sullivan, S. E., & Bhagat, R. S. (1992). Organizational stress, job satisfaction, and job performance: Where do we go from here? *Journal of Management, 18*(2), 353–374. https://doi.org/10.1177/014920639201800207

Tang, Y., Tang, R., & Gross, J. J. (2019). Promoting Psychological Well-Being through an Evidence-Based Mindfulness Training Program. *Frontiers in Human Neuroscience*, 13. https://doi.org/10.3389/fnhum.2019.00237

Tiwary, A., Rimal, A., Paudyal, B., Sigdel, K. R., & Basnyat, B. (2019). Poor communication by health care professionals may lead to life-threatening complications: examples from two case reports. *Wellcome Open Research, 4*, 7. https://doi.org/10.12688/wellcomeopenres.15042.1

Tsegaw, S., Getachew, Y., & Tegegne, B. (2022). Determinants of Work-Related Stress among Nurses working in private and public hospitals in Dessie City, 2021: Comparative Cross-Sectional study. *Psychology Research and Behavior Management*, 15, 1823–1835. https://doi.org/10.2147/prbm.s372882

Van Keer, R. L., Deschepper, R., Francke, A. L., Huyghens, L., & Bilsen, J. (2015). Conflicts between healthcare professionals and families of a multiethnic Patient population during critical care: an ethnographic study. Critical care (London, England), 19, 441. https://doi.org/10.1186/s13054-015-1158-4

Vermeir, P., Vandijck, D., Degroote, S., Peleman, R., Verhaeghe, R., Mortier, E., Hallaert, G., Van Daele, S., Buylaert, W., & Vogelaers, D. (2015). Communication in healthcare: a narrative review of the literature and practical recommendations. *International Journal of Clinical Practice*, 69(11), 1257–1267. https://doi.org/10.1111/ijcp.12686

Willis Towers Watson (WLTW) (2021). '85% of Philippine employers plan to use well- being program as 'differentiator' as workplace stress increases.' Retrieved from https://www.wtwco.com/enPH/News/2021/04.

Wong, K., Chan, A. H. S., & Ngan, S. C. (2019). The Effect of Long Working Hours and Overtime on Occupational Health: A Meta-Analysis of Evidence from 1998 To 2018. *International Journal of environmental research and public health*, 16(12), 2102. https://doi.org/10.3390/ijerph16122102

World Health Organization (WHO) (2020). Occupational health: Stress at the workplace. Retrieved from https://www.who.int/news-room/questions-and-answers/item/Occupational-Health-stress-at-the workplace.

World Health Organization (WHO) (2021). Stress. Retrieved from https://www.who.int/news-room /questions-and-answers/item/stress

Xia, N., & Li, H. (2018). Loneliness, Social Isolation, and Cardiovascular Health. Antioxidants & redox signaling, 28(9), 837–851. https://doi.org/10.1089/ars.2017.7312

Yao, C., Thorn, K., Duan, Z., & Taskin, N. (2015). Workplace stress in a foreign environment: Chinese migrants in New Zealand. *Equality Diversity and Inclusion an International Journal*, 34(7), 608–621. https://doi.org/10.1108/edi-08-2014-0065

Yozgat, U. et al. (2013). Job Stress and Job Performance among Employees in the Public Sector in Istanbul: examining the moderating role of emotional intelligence. 2nd International Conference on Leadership, Technology, and Innovation Management, Retrieved from www.sciencedirect.com. https://doi.org/10.1016/j.sbspro.2013.04.056

Zhang, L. F. (2012). Personality traits and occupational stress among Chinese academics. Educational Psychology: An *International Journal of Experimental Educational Psychology*, 32(7), 807820. https://doi.org/10.1080/01443410.2012.746641

Zikmund, G. W., Babin, J. B., Carr, C. J. & Griffin, M. (2010). Business Research Methods. 8th Ed. Hampshire, UK: Cengage Learning.