

Relationships among Occupational Stress, Social Relationships at the Workplace, and Psychological Wellbeing of Nurses and Midwives in the Catholic Health Service of the Western Region of Ghana

Eric Kwasi Elliason

Ph.D. Counseling Psychology, Texila American University, Takoradi, Ghana

Abstract

This study investigated the relationship among occupational stress, social relationships at the workplace, and psychological well-being among nurses and midwives in the Catholic Health Service of the Western Region of Ghana. A descriptive cross-sectional design was adopted for the study. The study was conducted in four purposely selected Catholic Hospitals in the Western Region of Ghana. A sample of 300 nurses and midwives was used for the analysis. For gathering information from participants, a questionnaire based on the Nurses' Occupational Stress Scale was adopted to measure the level of occupational stress; Ryff's Psychological Wellbeing Scale (PWB 18 items) to measure the level of psychological well-being, and the Worker Relationship Scale was developed by Biggs, Swailes, and Baker to measure the level of social relationships at the workplace among nurses and midwives. For statistical analysis, a one-sample t-test and Pearson Moment Correlation Coefficients were employed. The findings revealed a high level of occupational stress among nurses and midwives in the Catholic Health Service of the Western Region of Ghana, a positive social relationship among them, and positive psychological well-being among the nurses and midwives. The study's findings also revealed occupational stress was moderately and weakly associated with psychological well-being and workplace social relationships. Social relationships at the workplace were positively correlated with psychological well-being. It was recommended that Counselling Psychologists should be employed in all health facilities to take care of the counselling needs of nurses and midwives.

Keywords: *Occupational stress, Psychological well-being, Social relationships.*

Introduction

Occupational stress is not just a theoretical issue for academic discussion but a real threat to human lives. As humans get busy day in and day out, they encounter many stressors that destabilize their natural capacity to cope, leading to stress. Workplace stress is a significant issue for both employees and the organization. It is a common term used in life, with most people having a different understanding of its meaning [1]. The reality of occupational stress becomes more threatening, especially with regard to nurses and midwives. Nurses and midwives have to deal with stressful conditions at their

workplaces, including seeing blood, dead bodies, deadly and chronic diseases, and others.

Occupational stress is all harmful emotional and physical responses to job requirements that exceed or do not match the employees' resources, needs, or capabilities [2]. It is the change in an employee's physical or mental state in response to the workplace stress that poses a threat or an appraised challenge [3]. Stress at the workplace is inevitable, and also a certain level of stress is needed to motivate and help individuals grow and develop.

However, stress beyond a particular level can affect an employee's physiological and

psychological well-being, hurting the employee's performance [4].

Occupational stress is associated with work dissatisfaction, decreased work output, emotional disturbances, physical illness, high staff turnover, and absenteeism [5]. Work stress is recognized as a significant challenge for workers' health and the healthiness of their organizations. Mark and Smith asserted that occupational stress could have dire consequences for organizational growth and employees' psychological well-being [6].

Psychological well-being is crucial to the total well-being of individuals. Nurses and midwives need positive psychological well-being to function optimally in their various workplaces. Occupational stress affects the psychological well-being of nurses and midwives variously as agreed by Mark and Smith that stress causes a lot of psychological trauma, such as anger, anxiety, depression, nervousness, irritability, aggressiveness, and a decline in worker's self-worth, hatred to supervision, lack of concentration, difficulties in decision-making and job dissatisfaction [7].

Positive social relationships at the workplace among employees reduce the catastrophic effects of high levels of occupational stress. Chipeta et al. found out in their study that positive relationships among health professionals serve as a source of motivation and result in higher job performance [8]. Some studies have endorsed the essential role of positive working relationships on nurses' job performance, nurse's and patients' satisfaction, employee retention, and organizational commitment [9, 10].

Study Objectives

This study has two objectives. The first was to determine the level of occupational stress, social relationships at the workplace, and psychological well-being among nurses and midwives in the Catholic Health Service of the Western Region of Ghana. The was to examine the relationships among occupational stress,

social relationships at the workplace, and psychological well-being among nurses and midwives in the Catholic Health Service of the Western Region of Ghana.

Methodology

Study Area

The study was conducted in four selected hospitals in the Catholic Health Service of the Western Region of Ghana. The hospitals selected for the Study were Holy Child Catholic Hospital in the Sekondi-Takoradi Metropolitan Assembly, Jubilee Catholic Hospital in the Ahanta West Municipal Assembly, and St. Martin de Porres Hospital in the Ellembelle District, and Father Thomas Alan Rooney Memorial Hospital in the Amenfi West Municipality.

Study Design

The objectives of the study warranted the use of the quantitative approach. For Coughlan and Brydon-Miller [11], the collection of quantitative information allows researchers to conduct simple to highly sophisticated statistical analyses that aggregate the data, show relationships, or compare across aggregated data. Quantitative research includes methodologies such as questionnaires, structured observations, or experiments and stands in contrast to qualitative research, which involves collecting and analyzing narratives and open-ended observations through interviews, focus groups, or ethnographies [12].

Specifically, this study employed a descriptive cross-section research design. A cross-sectional study is a type of research design in which data is collected from many different individuals at a single point in time. In cross-sectional research, variables are observed without influencing them [13].

This study employed a cross-sectional survey because data were collected from the research participants at a particular time. Also, the study sought to observe, describe and document

aspects of the phenomenon as they naturally occur [14].

Population

The study's population included nurses and midwives from the four selected Catholic health facilities in the Western Region of Ghana. According to data from the four selected health facilities, a total of 501 nurses and midwives (398 nurses, 79% and 103 midwives, 21%) were available for the study.

Sample and Sampling Procedure

The sample size for the study was 300. The overall sample was determined using the Gill, Johnson, and Clark [15] sample size estimation table. The assumption of this sample size estimation table includes a 95% confidence level, 55 margins of error, and a population variance of 50%. According to this sampling formulae, given a population of 500, a sample of not less than 217 was used for the study. However, to increase the power of generalizability and decrease statistical errors, a sample of 300 was used. The calculation of representation of health professionals in each health facility was calculated based on the 300 samples.

The multistage sampling technique, comprising purposive sampling and stratified sampling, was used to select the sample for the study. First, purposive sampling, a non-probability sampling technique, was used to determine the health facilities to be included in the study. In selecting nurses and midwives for the study, stratified sampling was used to put nurses and midwives into two (2) strata. Stratified sampling was used because the study population consisted of two sub-groups – nurses and midwives, with different characteristics and work schedules.

The strata are thus formed based on common characteristics among the study population. A random sampling method was used to select samples from among nurses and midwives to give members in each stratum equal opportunity to participate in the study.

Data Collection Instrument

For gathering information from participants, a questionnaire based on the Nurses' Occupational Stress Scale, Ryff's Psychological Wellbeing Scale (PWB 18 items), the Coping Strategies Inventory (CSI-SF, 1989), and the Worker Relationship Scale developed by Biggs, Swailes, and Baker [16] were adopted. The questionnaire was divided into sections A, B, C, D, and E.

Ethical Consideration

As a demand, permission was sought from the Diocesan Directorate of Health of the Catholic Health Service in the Western Region, Ghana. The clearance certified that the study was harmless to participants. Information on the forms included the topic of the study, its significance, and the relevance of participants' involvement.

Again, informed consent was sought from participants. With this criterion of data collection, a discussion was held with participants to explain the purpose of the study to them. The voluntary nature of the study was strictly followed. Another critical issue that was considered was the anonymity of participants. All personally identifying information of participants such as names, addresses, email addresses, phone numbers, and other data were not collected. Indexes and numbers were assigned to the responded questionnaire during data entry.

Study Variables

The study variables included occupational stress, social relationships at the workplace, and psychological well-being. Other variables were demographic variables such as age, category of a health professional, and duration of service.

Statistical Analysis

A total of 300 participants were sampled for this study. However, a total of 280 responses were received, constituting a response rate of 93.4%. Data were entered and analyzed using SPSS version 23 and Microsoft Excel 2016 after

data were assessed for accuracy and completeness. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to present the sociodemographic information of the study participants. A one-sample t-test and Pearson Moment Correlation Coefficients were employed to analyze the data gathered for statistical purposes.

Results and Discussions

Results

Objective One

Level of Occupational Stress, Social Relationships at the Workplace and Psychological Wellbeing among Nurses and Midwives in the Catholic Health Service of the Western Region of Ghana

Research objective one sought to determine the overall level of occupational stress, psychological well-being, and workplace social relationship among nurses and midwives in the Catholic Health Service of the Western Region of Ghana. A One-sample t-test was used to analyze the research question. By this method, a

hypothesized mean was determined from the overall total items by multiplying their respective test value with the number of items on the scale (Occupational Stress: $2.5 \times 21 = 52.5$; Psychological Well-being: $4.0 \times 18 = 72$; Workplace Social Relationships: $3.0 \times 9 = 27$). The hypothesized values are the criterion measures against which the obtained mean of participants will be compared. Regarding occupational stress, a score above the hypothesized mean indicated significantly high levels of work-related stress; in terms of psychological well-being and workplace social relationships, a score above the hypothesized mean showed that participants have a positive level of psychological well-being and favourable workplace social relationships. The results of the analyses are presented in Table 5.

As indicated in Table 1, nurses and midwives within the Catholic Health Service in the Western Region experience significantly high levels of stress, positive psychological well-being, and favourable work-related social relationship. This is because each variable's obtained means are substantially higher than their hypothesized or obtained mean.

Table 1: One-Sample t-test for Occupational Stress, Psychological Wellbeing, and Workplace Social Relationship among Nurses and Midwives

Items	N	Mean	SD	t	df	p
Occupational Stress	287	56.91	9.10	-5.76	286	.000
Psychological Wellbeing	287	87.16	4.19	18.06	286	.000
Workplace Social Relationship	287	34.66	5.73	19.68	377	.000

Source: Field Survey, (2021) :Significant $p < 0.05$

Objective Two

Relationship among Occupational Stress, Social Relationships at the Workplace, and Psychological well-being among Nurses and Midwives in the Catholic Health Service of the Western Region of Ghana

Objective two sought to determine the association among occupational stress, workplace social relationship, and the psychological well-being of nurses and

midwives. Analysis was done using the Pearson Moment Correlation coefficients. The result of the analysis is presented in Table 2.

Pearson Correlation among Occupational Stress, Psychological Wellbeing, and Workplace Social Relationship (n = 287)

From the correlation matrix below, the correlation coefficient among the variables is worth noting. It is revealed that occupational stress was moderately and weakly associated with psychological well-being ($r = 0.426^{**}$,

p<0.01) and workplace social relationships, respectively ($r = 0.236^{**}$, $p < 0.01$). The relationship among the variables was positive. The positive association between occupational and psychological well-being suggests that occupational stress increases with lower psychological well-being. Similarly, the positive relationship between occupational stress and workplace social relationships connotes that a higher level of occupational stress is linked with a lower social relationship between nurses and

midwives in the work environment. It was further found that psychological well-being was positively correlated with workplace social relationships ($r = 0.511$, $p < 0.01$), such that lower psychological well-being was associated with lower workplace social relationships or with a higher level of psychological well-being is linked with better workplace social relationship. The relationship between these two variables was significantly moderate.

Table 2. Pearson Correlation among Occupational Stress, Psychological Wellbeing, and Workplace Social Relationship

No.	Variables	1	2	3
1.	Occupational Stress	–	.426**	.236**
2.	Psychological well-being		–	.511**
3.	Workplace social Relationship	.		–

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

Discussions

Objective One

Level of Occupational Stress, Social Relationships at the Workplace and Psychological Wellbeing among Nurses and Midwives in the Catholic Health Service of the Western Region of Ghana

The study results indicated that nurses and midwives within the Catholic Health Service of the Western Region experience significantly high levels of stress, a high level of psychological well-being, and a high level of work-related social relationships. The analysis indicated significantly high levels of occupational stress among the nurses and midwives in the Catholic Health Service of the Western Region of Ghana. This is evident in that occupational stress scored above the hypothesized mean, indicating a significantly high level. Regarding the level of social relationship and psychological well-being among nurses and midwives, the scores were also above the hypothesized mean showing a positive social relationship and positive psychological well-being among the nurses and

midwives in the Catholic Health Service of the Catholic Health Service in the Western Region of Ghana.

The study results that nurses and midwives experience significantly high levels of occupational stress affirm the work of [17, 18] that the hospital personnel, especially nurses and midwives, are exposed to severe or moderate occupational stress. The study is in line with the report of the World Health Organization, where it is recorded that in Ghana, the nurses-population ratio suggests that the nurses will have excessive workloads, long working hours leading to burnout, and high levels of occupational stress [19]. The result of the study also confirms the Study by Adzakpa, Laar and Fiadjoe conducted at the St. Dominic Hospital, Akwatia in Ghana, that nurses of the hospital were found to experience above-average levels of occupational stress with the mean score and individual average score of 37.01 and 2.47 indicating a 10% higher than the established Weiman Occupational Stress Scale mean score of 33.75 and an individual average of 2.25 [20]. The study result also agrees with the findings that nursing is a stressful occupation with high levels of stress [21-23].

About the level of social relationships at the workplace among nurses and midwives in the Catholic Health Service of the Western Region of Ghana, the study revealed a high level of social relationships among them. This is positive as it enhances total employee well-being. The result agrees with Schön Persson et al. that relationships are essential to the psychosocial work environment and maybe resources for the employees' well-being [24]. Dutton and Ragins affirm that positive relationships at work may be a resource that can help individuals and organizations to develop and flourish [25].

The study results also revealed positive psychological well-being among the nurses and midwives in the Catholic Health Service of the Western Region of Ghana. Waters opines that positive mental health is essential because it allows us to cope with challenges, even good ones, and setbacks in our lives, both at work and home [26]. Waters further affirms that positive mental health at work helps us cope with changing roles and responsibilities. It helps us flourish in our roles, manage stress, and boost our resilience. Ultimately, it allows us to reach our highest potential [27]. Thus, as revealed in the study, positive psychological well-being among the nurses and midwives will help them deal with challenges at work and at home and reach one's highest potential in life.

Relationship among Occupational Stress, Social Relationships at the Workplace and Psychological Wellbeing among Nurses and Midwives in the Catholic Health Service of the Western Region of Ghana

The study showed that the relationship among the three variables was positive. The positive association between occupational stress and psychological well-being indicates that occupational stress increases with lower psychological well-being. This implies that where there is lower psychological well-being, there is an increase in occupational stress. Thus, occupational stress decreases psychological

well-being. The study also discovered a positive relationship between occupational stress and social relationships at the workplace, indicating that a higher level of occupational stress is linked with lower social relationships between nurses and midwives in the work environment. The study's findings further showed that social relationships at the workplace were positively correlated with psychological well-being. This suggests that lower psychological well-being is indicative of lower social relationships at the workplace. Conversely, higher psychological well-being is also indicative of higher social relationships at the workplace.

The findings align with Themes, Costa, and Guilam's Study that uncovered that health professionals with high demand and low control experience poor self-related health. The study affirmed that occupational stress has a toll on the overall well-being of employees [28]. The findings are further substantiated by a descriptive survey of Adegoke, who analyzed the impact of occupational stress on the psychological well-being of police. He found a significant impact of work stress on the psychological well-being of police [29]. These earlier works agree with the research work of Suleman, Hussain, Shehzad, Syed, and Raja, where it was revealed that there is a strong negative correlation between perceived occupational stress and psychological well-being. The results of their study imply that as occupational stress increases, psychological well-being reduces and vice versa [30].

The results cohere with the Transactional Stress Theory, which posits an interaction between an individual and the environment. The Transactional model of stress emphasizes that stress occurs when an individual is faced with environmental demands. It also suggests that the individual's ability to cope with these demands largely rests on their cognitive appraisal [31]. Here, stress occurs when the interaction between an individual and the environment threatens their coping resources and burdens physical and psychological well-being.

Conclusion

The study investigated the level and relationship among occupational stress, social relationships at the workplace, and psychological well-being among nurses and midwives in the Catholic Health Service of the Western Region of Ghana. The study results showed a high level of occupational stress among the nurses and midwives in the Catholic Health Service of the Western Region of Ghana. The study, however, found a favourable social relationship and positive psychological well-being among the nurses and midwives. The study results also revealed that occupational stress was moderately and weakly associated with psychological well-being and workplace social relationships. Social relationships at the workplace were positively correlated with psychological well-being.

It is recommended that the Ministry of Health and its agencies in Ghana employ counselling psychologists for all health facilities to take care

of the counselling needs of nurses and midwives and, by extension, all health professionals. The study also recommends that adequate nurses and midwives should be posted to the various facilities to reduce the workload on the few nurses and midwives on the ground. There should also be effective and efficient management in all facilities in the country.

Acknowledgement

I would like to thank Dr. Anthony Kwabena Nkyi of Cape Coast University, Ghana, for his immense support and direction in this investigation. I also wish to thank the following for their assistance: Gordon Buadi Miezah, Samuel Osae, Charles Kwesi Morison, Kingsley Amegah, and Valentine Ziem.

Conflict of Interest

The researcher declares that there is no conflict of interest in undertaking this research study.

References

- [1] Ismail, A. Yao, Yeo, E, Lai-Kuan, K., and Soon-Yew, J. (2010). Work-related stress Features, Emotional Intelligence, and Job Satisfaction: An Empirical Study in Private Institutions of Higher learning. *Revista Negotium*, 16 (5) 5-33.
- [2] Landsbergis, Paul A, Dobson, Marnie, LaMontagne, Anthony D, Choi, BongKyoo, Schnall, Peter and Baker, Dean B (2017). Occupational stress. In Levy, Barry S, Wegman, David H, Baron, Sherry L and Sokas, Rosemary K (ed), *Occupational and environmental health*, Oxford University Press, Oxford, Eng., pp.325-343.
- [3] Colligan, T. W., & Higgins, E. M. (2006). Workplace stress: Etiology and consequences. *Journal of Workplace Behavioral Health*, 21(2), 89-97.
- [4] Arrman, N. and Björk, E. (2017). The causes and effects of occupational stress in the construction industry: A qualitative analysis of the impact work demands and pressures have on employee stress level.

Master's Thesis in the Master's Programme International Project Management. Department of Civil and Environmental Engineering. Division of Construction Management. The Chalmers University of Technology.

- [5] Malik, S., & Noreen, S. (2015). Perceived organizational support as a moderator of affective well-being and occupational stress. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 9(3), 865-874.
- [6] Mark, G. and Smith, A. (2011). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. *Anxiety, Stress, and Coping* 25(1):63-78.
- [7] Mark, G. and Smith, A. (2011). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. *Anxiety, Stress, and Coping* 25(1):63-78.
- [8] Chipeta, E., Bradley, S., Chimwaza-Manda, W., & McAuliffe, E. (2016). Working relationships

- between obstetric care staff and their managers: a critical incident analysis. *BMC health services research*, 16(1), 441. <https://doi.org/10.1186/s12913-016-1694-x>.
- [9] Adams, A., & Bond, S. (2000). Hospital nurses' job satisfaction, individual and organizational characteristics. *Journal of advanced nursing*, 32(3), 536-543.
- [10] Force, M. V. (2005). The relationship between effective nurse managers and nursing retention. *JONA: The Journal of Nursing Administration*, 35(7), 336-341.
- [11] Coghlan, D. and Brydon-Miller, M. (editors) (2014). Quantitative Methods. In *The SAGE Encyclopedia of Action Research*. <https://dx.doi.org/10.4135/9781446294406.n297>.
- [12] Coghlan, D. and Brydon-Miller, M. (editors) (2014). Quantitative Methods. In *The SAGE Encyclopedia of Action Research*. <https://dx.doi.org/10.4135/9781446294406.n297>.
- [13] Thomas, L. (2020). What is a cross-sectional study? Retrieved from: <https://www.scribbr.com/methodology/cross-sectional-study/>.
- [14] Creswell, J.W. (2012). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. 4th edition. Pearson: London.
- [15] Gill, J., Johnson, P. and Clark, M. (2010). *Research Methods For Managers*, Sage Publications.
- [16] Biggs, D. M., Swailes, S., & Baker, S. (2016). The measurement of worker relations: *the development of a three-component scale. Leadership & Organization Development Journal*.
- [17] Vahed, S. A, Hamuleh, M. M., Sanchuli, J. and Shahraki S. H.(2011). Assessment of the relationship between mental health and job stress among nurses. *Medical Journal Jahrom University Medical Science* 2011;8(3):34-40.
- [18] Hashemi. N. N., Moghadam S. R., Mohammadyan M. and Amiri F. (2013). Survey of Relationship between Mental Health and Job Stress among Midwives Who Were Working in Hospitals of Kerman, Iran, 2011. *Iran Journal of Obstetrics Gynecology Infertility* 2013;16(64):1-9.
- [19] World Health Organization (2020). Occupational Health: Stress at the workplace. Available at: <https://www.who.int/news-room/q-a-detail/occupational-health-stress-at-the-workplace>.
- [20] Adzakpah, G., Laar, A. S., & Fiadjoe, H. S. (2016). Occupational stress among nurses in a hospital setting in Ghana. *Clinical Case Reports and Reviews*, 2(2), 333-338.
- [21] Xianyu, Y. and Lambert, V.A. (2006). Investigation of the relationships among workplace stressors, ways of coping, and the mental health of Chinese head nurses. *Nursing and Health Sciences* 8(3):147-55.
- [22] Marshall, J.(1980). Stress amongst nurses. In: Cooper CL, Marshall, editors. *White Collar and Professional Stress*. London, Chicester: Wiley.
- [23] Bailey, R.D (1985). *Coping with stress in caring*. Oxford: Blackwell.
- [24] Schön Persson, S., Nilsson Lindström, P., Pettersson, P., Nilsson, M., & Blomqvist, K. (2018). Resources for work-related well-being: A qualitative study about healthcare employees' experiences of relationships at work. *Journal of clinical nursing*, 27(23-24), 4302-4310.
- [25] Dutton, J. E., & Ragins, B. R. (2007). *Moving Forward: Positive Relationships at Work as a Research Frontier*.
- [26] Waters, S. (2021). Mental health in the workplace: why is it important, and what support is available? Available at: <https://www.betterup.com/blog/mental-health-in-the-workplace>.
- [27] Waters, S. (2021). Mental health in the workplace: why is it important, and what support is available? Available at: <https://www.betterup.com/blog/mental-health-in-the-workplace>.
- [28] Theme Filha, M. M., Costa, M. A. D. S., & Guilam, M. C. R. (2013). Occupational stress and self-rated health among nurses. *Revista latino-americana de enfermagem*, 21(2), 475-483.
- [29] Adegoke, T. G. (2014). Effects of occupational stress on the psychological well-being of police employees in Ibadan Metropolis, Nigeria. *African Research Review*, 8(1), 302-320.

[30] Suleman, Q., Hussain, I., Shehzad, S., Syed, M. A., & Raja, S. A. (2018). Relationship between perceived occupational stress and psychological well-being among secondary school heads in Khyber Pakhtunkhwa, Pakistan. *PloS one*, 13(12), e0208143.

[31] Kim, Y.Y. (2017). Stress–Adaptation–Growth Dynamic.
<https://doi.org/10.1002/9781118783665.ieicc0071>.