UNIVERSITY OF CAPE COAST

INFLUENCE OF SAFETY CULTURE ON QUALITY-OF-WORK-LIFE OF MENTAL HEALTH WORKERS IN GHANA

JACOB OWUSU SARFO

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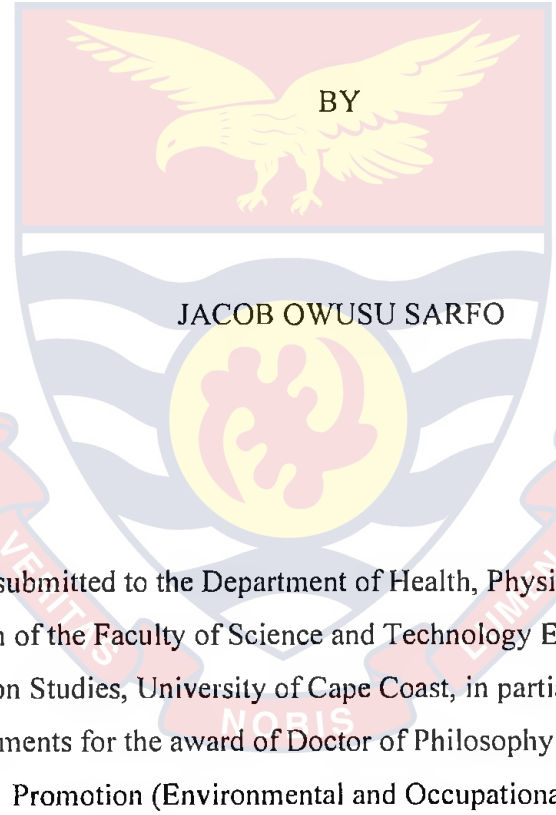

BY

JACOB OWUSU SARFO

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:..... Date: 10/02/2020

Name: Jacob Owusu Sarfo

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature:..... Date: 12/02/2020

Name: Dr. Daniel Apaak

Co-Supervisor's Signature: ..... Date: 10/02/2020

Name: Dr. Edward Wilson Ansah

ABSTRACT

The study sought to determine the effect of safety culture on Quality-of-Work-Life (QoWL), the lived safety culture experiences, and how these experiences produced QoWL perceptions among mental health workers in Ghana. Eight research questions were formulated to guide the study. Employing a mixed methods design, 576 mental health workers were recruited purposively from Accra, Ankaful and Pantang Psychiatric Hospitals for the quantitative data collection. Additionally, purposive and snowball sampling strategies were used to collect data from fifteen health workers with interviews until data saturation. A questionnaire from pre-existing instruments and semi-structured interview guide were used for data collections. Chi-Square, Factorial Analysis of Variance, Multiple Analysis of Variance, and Path Analysis using PROCESS Macro were employed for quantitative data analysis while Interpretative Phenomenological Analysis (IPA) was used for qualitative data. The results indicated positive associations between workplace violence and working at mental health facilities. Also, safety culture had a significant direct positive effect on QoWL of mental health workers, with turnover intentions partially mediating the effect of safety culture on QoWL. Moreover, working at the mental health facilities produced a significant moderating effect on the effect of safety culture on turnover intentions and QoWL. Also, IPA showed that poor job satisfaction and high turnover intentions were formed due to poor safety culture experiences. Psychiatric hospital settings are posing serious safety culture risk to the QoWL perceptions of professionals. Management needs to provide a strong safety commitment in these facilities to increase the health and safety of the workers.

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DEDICATION

To the memory of the late, Professor Joseph Kwasi Ogah, and my late parents,

Mr. Wilfred Kwame Sarfo and Mrs. Regina Asomaning Sarfo.

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LIST OF ACRONYMS

ANOVA	Analysis of Variance
DV	Dependent Variable
GHS	Ghana Health Service
IPA	Interpretative Phenomenological Analysis
IV	Independent Variable
MANOVA	Multiple Analysis of Variance
MoH	Ministry of Health
OLS	Ordinary Least Squares
QoWL	Quality-of-Work-Life
UCC	University of Cape Coast
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

Background to the Study

Mental health workers are one group of professionals who are highly exposed to workplace hazards. They include all health personnel who are trained to care for mentally ill patients. In Ghana, these professionals include psychiatrists, clinical psychologists, social workers, occupational therapists, clinical psychiatric officers, community mental health officers, community psychiatric nurses, mental health nurses and enrolled mental health nurses (Agyapong, Osei, Farren, & McAuliffe, 2015; Doku, Wusu-Takyi, & Awakame, 2012; Shea, 2016). Regarding professional qualifications and duties, psychiatrists are medical officers who have undergone an additional 3-year specialist training in psychiatry after their general 6-year medical training. They treat patients with medicines and psychotherapy (Mfoafo-M'Carthy, & Sossou, 2017).

Likewise, clinical psychologists have a minimum of 6 years of education; 4 years of bachelor's degree and a 2-year master's degree in psychology. In Ghana, they use psychotherapies to manage mentally ill patients (Dziwornu, Otchere, & Howusu-Kumi, 2016). Furthermore, clinical psychiatric officers prescribe medicines to treat patients but have a minimum qualification of a 4-year bachelor's degree (Mfoafo-M'Carthy, & Sossou, 2017). Also, social workers have a minimum of 4-year Bachelor of Arts degree and they assist with the adjustment and integration of patients. Also, occupational therapists have a minimum of a degree and provide rehabilitation care for the mentally ill (Agyapong et al., 2015). In contrast, community mental health officers, mental health nurses and community psychiatric nurses have a minimum of a 3-year Diploma in Nursing education and provide mental health nursing at both clinical

and community levels. However, enrolled mental health nurses have a 2-year certificate in Mental Health Nursing and also provide basic nursing services.

Mental health professionals, like other healthcare workers in the hospital environment, face occupational health and safety (OHS) problems (Salyers et al., 2015). These workers face hazards including biological, chemical, radioactive, physical, psychosocial and a complex network of safety risk factors (Boafo, 2016a; Baby, Glue, & Carlyle, 2014; Komilis, Fouki, & Papadopoulos, 2012; Schweitzer, Horn, Mikolajczyk, Krause, & Ott, 2015; Walton, & Rogers, 2017). Thus, it is important that practical measures be adopted to reduce these hazards. Globally, organisations cultivate structures in their culture to identify, adapt and overcome inevitable OHS problems (Ismail, Ahmad, Janipha, & Ismail, 2017). The aspect of organisational culture that concerns itself with OHS is the organisational safety culture (Costanza, Blacksmith, Coats, Severt, & DeCostanza, 2016; Hallman, O'connor, Hasenau, & Brady, 2014).

Safety culture is the perception of workers about organisational values and beliefs on safety and how their systems respond to safety issues (Hallman et al., 2014; Vlayen, Hellings, Claes, Abdou, & Schrooten, 2015). This concept was popularised after the nuclear accident in 1986 at Chernobyl in the then Union of Soviet Socialist Republic (De Geer, Persson, & Rodhe, 2018). Following that event, several studies and policies have been implemented to improve the safety culture of employees worldwide (Hofmann, Burke, & Zohar, 2017). Therefore, the components of safety culture include management and employees' commitment to safety, management action, perceived risk levels, accident causation perceptions, emergency procedures, communication and delivery of safety training (Chang, Shao, & Chen, 2015; Guldenmund, 2017). Despite the increase of safety culture literature, authors offer diverse perspectives regarding

its components (Hofmann et al., 2017). Furthermore, it is often confused with the safety climate (Soh, Barker, Morello, Dalton, & Brand, 2016).

Safety climate measures the degree to which safety is perceived by employees to be essential and effective in their organisation (Petitta, Probst, Barbaranelli, & Ghezzi, 2017; Soh et al., 2016). Due to the challenges associated with differentiating between safety culture and climate, some researchers and practitioners prefer to use them interchangeably or use safety climate to provide a representation of an organisation's safety culture (Morello et al., 2013; Soh et al., 2016). In functional terms, safety climate is a subset of safety culture (Zenere et al., 2016). In order to ensure a healthy and safer environment for both mental health personnel and patients, comprehensive safety culture standards have to be measured and maintained regularly (Vlayen et al., 2015). Studies have shown that the safety culture of organisations affects the quality-of-work-life (QoWL) of employees (Koreki et al., 2015). Thus, adequate systems and practices are important to handle OHS hazards and to improve QoWL of workers (Huang et al., 2016).

Employees' QoWL is the overall measure of "positive feelings and attitudes employees have towards their work" (González-Baltazar et al., 2015, p. 4936). Components of QoWL include job satisfaction, the overall wellbeing of employees, home-work boundary, stress at work and control at working conditions (Easton, & Van Laar, 2013; Khamisa, Oldenburg, Peltzer, & Ilic, 2015; Opollo, Gray, & Spies, 2014). Though QoWL is important to all job fields, there is no agreed universal definition and it may be affected by different factors at work (Easton, & Van Laar, 2013). Evidently, QoWL is affected by workplace hazards (Boafo, & Hancock, 2017; Green, Albanese, Shapiro, & Aarons, 2014; Mannocci et al., 2016) such as violence, injuries from instruments, discrimination, falls, work overload, and extended work shifts (Boafo, &

Hancock, 2017; Çelik, Çelik, Ağırbaş, & Uğurluoğlu, 2007; Pekurinen et al., 2017; Vatne, 2017). For example, 4.9% of psychiatrists in Japan experienced frequent violence as they care for patients (Koreki et al., 2015), while over 70% of them had burnouts due to work (Umene-Nakano et al., 2013).

Among Dutch mental health workers, 67% reported being physically abused in the past five years (Van Leeuwen, & Harte, 2017). Similarly, a Turkish sample indicated that 60.8% of 441 nurses working at six university hospitals faced verbal and/or physical violence from patients, visitors and health staff (Atan et al., 2013). Moreover, a study conducted in Israel showed that of 118 mental health nurses, 88.1% reported verbal violence from patients in the past years while 58.4% experienced physical violence (Itzhaki et al., 2015). In cases of patients' violent attacks, the causes are often pathological, not be easily explained with a rational cause (Itzhaki et al., 2015; Kuivalainen, Vehviläinen-Julkunen, Putkonen, Louheranta, & Tiihonen, 2014). For example, more than half of the 840 incidents of physical violence that occurred in a Forensic Psychiatric Hospital between 2007 and 2009 in Finland were unexplained. In addition, civil patients were found to be 12 times more violent than criminal patients (Kuivalainen et al., 2014).

The scope of safety culture operating in healthcare settings affects the quality of patient care and safety of resources (Boafo, & Hancock, 2017; Gul, Ak, & Guneri, 2017). For example, work overload among mental health workers has been reported to increase the risk of medication-administration errors among nurses (Cottney, & Innes, 2015). Medication-administration errors can lead to many health complications including death (Nanji, Patel, Shaikh, Seger, & Bates, 2016). Also, the associations between organisational safety culture, QoWL and employees' mental health have been reported by Koreki et al. (2015). Koreki et al. noted that an estimated prevalence of 34.4% of Japanese psychiatrists had

significant depressive symptoms. Besides, Haar, Russo, Suñe, and Ollier-Malaterre, (2014) reported in their study that work-life balance is negatively correlated with anxiety and depression among 1,416 Malaysian, Chinese, New Zealand Maori, New Zealand European, Spanish, French, and Italian employees. Similarly, job satisfaction among employees has been shown to negatively predict depression and stress while moderating the associations between meaningful work, anxiety, and stress (Allan, Dexter, Kinsey, & Parker, 2018).

Evidence shows that mental health nurses at the Rehabilitation Unit of the Pantang Hospital in Ghana had higher levels of work-related stress due to the nature of their work demands (Atindanbila, Abasimi, & Anim, 2012). According to Jack, Canavan, Bradley, and Ofori-Atta (2015), mental health workers in Ghana face aggression and stigma on a regular basis. Notwithstanding the incidence of OHS problems among mental health workers in Ghana, there is a sparsity of research in which safety culture influences QoWL among these personnel (Gyensare, Anku-Tsede, & Kumedzro, 2017; Jack et al., 2015).

There is evidence of a correlation between job satisfaction, work stress and work-family conflict and employees' turnover intentions (de Oliveira, Cavazotte, & Alan Dunzer, 2017; Lu et al., 2017). Turnover intention is the likelihood that an employee will quit his or her job within a said period (Chung, Jung, & Sohn, 2017; Liu, & Lo, 2018). Huang et al. (2016) suggested that employees' turnover intentions associated significantly with safety climate. Likewise, a study among Jordanian psychiatric nurses indicated a significant negative relationship between job satisfaction and turnover intention (Alsaraireh, Quinn Griffin, Ziehm, & Fitzpatrick, 2014).

Motivation and job satisfaction are significantly related to turnover intention, workload, management, organizational commitment and burnout among 256 health workers in the Eastern Region of Ghana (Bonenberger, Aikins,

Akweongo, & Wyss, 2014). In a survey of 592 professional nurses and midwives in Ghana, personnel's workplace violence significantly correlated with their intention to quit the nursing profession. The study indicated that 12.0% and 52.2% of the respondents had experienced sexual harassment and verbal abuse respectively (Boafo, Hancock, & Gringart, 2016).

Moreover, Ghanaian nurses who experience physical, verbal and sexual violence are 2.1, 1.8 and 2.4 times respectively more likely to migrate from the country (Boafo, 2016a). Though evidence suggests the link between safety culture and QoWL worldwide (Chiang, Hsiao, & Lee, 2017; Munnangi, Dupiton, Boutin, & Angus, 2018), little has been done to determine the exact influence these constructs have among mental health workers in Ghana.

The Central and Greater Accra Regions of Ghana have both specialist and secondary-level facilities to provide both acute and chronic mental healthcare (Hanu, 2014; Mfoafo-M'Carthy, & Sossou, 2017). Thus, these regions have the highest number of mental health workers (Ghana Health Service, 2015). Nonetheless, Hanu (2014) reported that the Greater Accra Region lacks an adequate supply of medications, poor patient-mental health worker ratio and good conditions of service for employees. In addition, mental health workers reported psychological distress which can affect their overall mental health (Atindanbila et al., 2012).

Acute mental healthcare settings are known to experience a double safety culture challenges than chronic care settings (Hanrahan, Aiken, McClaine, & Hanlon, 2010). Since majority of mental health workers in these regions provide acute care services, they may also be at a higher risk for impaired safety culture and other related problems (Iozzino, Ferrari, Large, Nielssen, & De Girolamo, 2015; Sarfo, & Ofori, 2016; Stevenson, Jack, O'Mara, & LeGris, 2015). As suggestive from the 2016 Eastern Regional Annual Mental Health Report, the

region has factors that can impact on their safety culture and QoWL (Mental Health Authority, 2018c). The annual report indicated that the region has inadequate human resources. However, the absence of a resident psychiatrist, clinical psychiatric officer or occupational therapist could increase the workload on the mental health nurses. Comparatively, Ghana has an inadequate supply of psychiatric medications and material resources for patient care (Mental Health Authority, 2018c; Wireko-Gyebi, & Ashiagbor, 2018). Thus, safety culture in Ghana is very likely to influence the QoWL dimensions among mental health workers (Alsaraireh et al., 2014; Huang et al., 2016; Liu, & Lo, 2018).

Statement of the Problem

The influence of safety culture on QoWL among mental health workers in Ghana is vital to the promotion of quality patient care, worker health, and safety. However, the limited OHS investigations conducted among health workers in Ghana (Amponsah-Tawaih, & Adu, 2016; Lori, McCullagh, Krueger, & Oteng, 2016) scarcely include the safety culture or QoWL of mental health personnel. Additionally, these studies often explored constructs using quantitative designs (Abaa, Atindanbila, Mwini-Nyaledzigbor, & Abepuoring, 2013; Atindanbila et al., 2012). This practice usually neglects the lived experiences and meanings attached to safety culture and QoWL of mental health workers (Creswell, 2013), despite the OHS challenges.

A study in the Eastern Region of Ghana among health workers also linked turnover intention with some components of QoWL like job satisfaction (Bonenberger et al., 2014). Also, evidence among mental health workers in Ghana showed that 16.2% of Community Mental Health Officers wanted to leave their job due to poor safety culture and QoWL factors. Furthermore, 5.3% of Clinical Psychiatric Officers and 28.2% of Community Psychiatric Nurses wanted to leave due to the same reason (Agyapong et al., 2015). Since Ghana has an inadequate

number of mental health workforce, but high numbers of patients and inadequate provision of medication (Hanu, 2014; Mental Health Authority, 2018c), there is the likelihood of work overload, long shift hours and workplace violence among these categories of workers (Bonenberger et al., 2014).

There seems to be limited evidence of the influence of QoWL factors on the mental health of mental health workers in Ghana. For example, work-life balance has a negative correlation with anxiety and depression of employees (Haar et al., 2014). Likewise, Abaa et al. (2013) reported that job stress had a significant relationship with job satisfaction among nurses at Ridge and Pantang Hospitals in Ghana. This is vital since mental health facilities need professionals who are mentally healthy to cope with the demanding nature of their job (Hanu, 2014). Lastly, the components of safety culture and QoWL of employees have been reported to have linkages with mental health problems of hospital staff (González-Baltazar et al., 2015; Goldman, Shah, & Bernstein, 2015). However, there seems to be no available one-time study that explored quantitatively, the effect of safety culture on QoWL, and qualitatively, the lived QoWL experiences formed as a result of QoWL among mental health workers in Ghana. The current study was therefore carried out to fill these identified knowledge gaps in the area of safety culture and QoWL among mental health workers in Ghana.

Purpose of the Study

The purposes of this study were to: (1) determine the existing safety culture and its effluence on QoWL including violence experienced, among mental health workers, (2) explore the interaction effects of marital status, number of violence and shift on absence due to sickness among the workers, (3) test the path relationships among safety culture, QoWL, turnover intentions, and type of mental health facilities of the workers, and (4) explore the lived safety culture

experiences and how they produce QoWL perceptions among mental health workers in Ghana.

Research Questions

This study answered the following research questions:

1. What is the association between the type of psychiatric hospital and the nature of violence experienced by mental health workers in Ghana?
2. What interaction effects exist among marital status, number of violence and shift on absence due to sickness among mental health workers in Ghana?
3. What differences exist among workers of mental health hospitals in safety culture, turnover intentions and QoWL of mental health workers in Ghana?
4. To what extent does safety culture affect the QoWL of mental health workers in Ghana?
5. To what extent do turnover intentions mediate the effect of safety culture on QoWL of mental health workers in Ghana?
6. To what extent do mental health facilities moderate the effects of safety culture on turnover intentions and QoWL of mental health workers in Ghana?
7. What are the lived safety culture experiences of mental health workers in Ghana?
8. What QoWL experiences are acquired by mental health workers in Ghana as a result of their lived safety culture experiences?

Significance of the Study

The Ministry of Health, Ghana Health Service and the Mental Health Authority of Ghana are required to ensure a good safety culture to improve the QoWL of mental health workers. The results from this study will assist these bodies in formulating policies. This will protect and promote the OHS of personnel, patients and their work-environment.

Again, results from this study will inform the management bodies of hospitals/clinics in Ghana about the existing organisational safety culture and its effects on personnel. This will also help them improve their safety culture. Finally, the findings will add up to existing empirical evidence on safety culture, QoWL, turnover intention and mental health of mental health workers.

Delimitation

The study was delimited to mental health workers who work in the three major psychiatric specialist hospitals in Ghana, Ankaful Psychiatric Hospital, Accra Psychiatric Hospital, and Pantang Psychiatric Hospital. This study measured the role of safety culture on the QoWL of purposively sampled mental health workers. It was a mixed methods study using Interpretative Phenomenological Analysis (IPA) for qualitative data analysis and Ordinary Least Squared (OLS) Structural Equation Model as a quantitative analytical tool.

Limitations

The participants (mental health workers) and the three major psychiatric specialist hospitals in Ghana used in this study were selected purposively during both quantitative and qualitative phases. Furthermore, snowball sampling was done in the qualitative phase to select participants with lived safety culture experiences. The participants were not certainly representative of all mental health workers in Ghana. Thus, findings and conclusions of the study cannot be generalised to all health workers in Ghana.

Definition of Terms

Mental disorder: any abnormal state of brain function that affects wellbeing and daily function. Examples include anxiety, depression, and insomnia symptoms among mental health workers.

Mental Health Patient: a person who is mentally ill and being cared for at a hospital.

Mental health worker: any professional with training in mental health who works directly with patients and their families. Examples include psychiatrists, clinical psychologists, nurses, occupational therapists, and social workers.

QoWL: the actual and/or perceived feelings and attitudes that workers have towards their occupation, work outputs, and personal life.

Safety culture: the overall system of safety ideals and practices found in the work-environment of the workers.

Turnover intention: the plan to leave or stay at post as an employee.

Organisation of the Study

This thesis is organised in five chapters. Chapter one addresses the background to the study, statement of the problem, purpose of the study and research questions. The significance of the study, delimitations, limitations, and definition of terms also covered. Chapter two offers a comprehensive review of the QoWL model as the theoretical base of the study. It also provides an analysis of related literature. Chapter three looks at the study's research methods including research design, population, sampling procedure, data collection instruments, data collection procedures, and data processing and analysis. Chapter four presents the results and discussions of findings. Finally, chapter five provides the summary, conclusions, and recommendations of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The purposes of this study were to: (1) determine the existing safety culture and its effluence on QoWL including violence experienced, among mental health workers, (2) explore the interaction effects of marital status, number of violence and shift on absence due to sickness among the workers, (3) test the path relationships among safety culture, QoWL, turnover intentions, and type of mental health facilities of the workers, and (4) explore the lived safety culture experiences and how they produce QoWL perceptions among mental health workers in Ghana. The review of related literature covered the following sub-headings:

1. Theoretical Base of the Study
2. Risk Analysis Process
3. The Concept of Safety Culture
4. Safety Culture in International Healthcare
5. Safety Culture in National Healthcare
6. The Concept of QoWL
7. QoWL in International Healthcare
8. QoWL in National Healthcare
9. Safety Culture and QoWL of Mental Health Workers in Ghana
10. Conceptual Framework
11. Summary

Theoretical Base of the Study

Two theoretical models provide the theoretical base of the study. These include the model of reciprocal determinism (Bandura, 1978) and Cooper's reciprocal safety culture model (Cooper, 1993).

The model of reciprocal determinism was developed by psychologist Albert Bandura as the foundation for social cognitive theory (Bandura, 1986). It posits that the behaviour of a person is the product of inter-influence between personal factors like cognitive, biological and affective events, and the environment (Bandura, 1978). This cycle of mutual influence is also called triadic reciprocal causation (Bandura, 1999). Bandura (1988) explained that the interactions among these three variables can be influenced to enhance organisational functioning. According to Fang and Wu (2013), the situation is the outcome of the person, as the person's behaviour is also the outcome of the situation

The model of reciprocal determinism has been used to theoretically explain life satisfaction, classroom learning, safety attitudes and mental health (Fang, & Wu, 2013; Fergusson et al., 2015; Tosto, Asbury, Mazzocco, Petrill, & Kovas, 2016). In agreement with this assumption, a study by Fergusson et al. (2015) suggested that life satisfaction and mental disorder influenced each other in a given environment in New Zealand. Also, a narrative review among 4 continents identified safety culture effects like medication administration error behaviour among registered nurses to be mutually influenced by factors in the environment like workload and work setting. These two variables were also influenced by personal factors such as nurses' characteristics and their lived experience of work (Parry, Barriball, & While, 2015).

Evidently, patient safety culture had significant relationships with adverse event rates in Palestinian hospitals as reported by Najjar, Nafouri, Vanhaecht, and Euwema (2015). Correspondingly, television reporters in Taiwan indicated that environmental factors like transformational leadership style and positive safety climate significantly lead to a person's behaviour like

reduced turnover intentions (Wang, & Yen, 2015). Laschinger (2014) indicated that nurse-assessed quality and prevalence of adverse events among Canadian nurses were significantly affected by their workplace environment.

Furthermore, nurses who experienced bullying and incivility could not adequately perceive a patient's safety risk during care. Although the environment influences health workers to determine their behaviour, studies have associated more negative outcomes among mental health workers (Jack, Canavan, Ofori-Atta, Taylor, & Bradley, 2013; Rössler, 2012). For example, compared to other Canadian health staff, mental health nurses were very fearful due to negative factors like inadequate training and support, increased turnover and low remuneration. Comparatively, they were less likely to communicate errors openly due to fear of repercussions (Castel, Ginsburg, Zaheer, & Tamim, 2015).

Cooper's Reciprocal Safety Culture Model

Dominic Cooper (1993) developed the reciprocal safety culture model. This model had its roots from Bandura's (1978) model of reciprocal determinism. According to this model, safety culture is composed of three parts which include the person, job and situation (Cooper, 1993). The person component is the safety climate of the organisation. It includes the employee's perceptions, values, and attitudes about safety (Cooper, 2000). Again, the job component refers to the safety behaviours on the job while the situation includes objective situational factors in an organisation. This is equivalent to the 'behaviour' component in the model of reciprocal determinism (Bandura, 1999; Cooper, 2000). The 'situation' variables are policies, procedures, management structures, and communication in an organisation (Cooper, 2000). This component is also equivalent to the 'environment' component in the model of reciprocal determinism (Bandura, 1999; Cooper, 2000).

According to Cui, Fan, Fu and Zhu (2013), this model integrates both psychological and environmental elements of safety at work. Thus, it helps to explain safety culture in the scope of "hazardous environment, safety climate, and individual safety behaviours" (p. 37). Similar to the model of reciprocal determinism (Bandura, 1986), evidence from reciprocal safety culture model (Cooper, 1993) suggests that undesirable safety elements will interrelate with employees' safety perceptions and their behaviours (Simons et al., 2015). Nonetheless, Cooper (2000) stressed on the need for effective organisational policies and activities to promote OHS. This will also have an influence on the QoWL of employees (Körner, Wirtz, Bengel, & Göritz, 2015). Körner et al. noted that 35% of employees' job satisfaction is predicted by factors like organisational culture and teamwork. Additionally, safety climate significantly predicted self-reported safety behaviour among multiple Swedish samples following a 7-months baseline study (Pousette, Larsson, & Törner, 2008).

Inferring from the assumptions of these two models by Bandura (1978) and Cooper (1993), mental health workers' safety culture in Ghana is more likely to influence and be influenced by their QoWL at work (Alsaraireh et al., 2014; Atindanbila et al., 2012). These reciprocal relationships will also be influenced by the psychiatric facility they work in and turnover intentions (Boafo, 2016a; Jack et al., 2015). In summary, safety culture which is part of the organisational psychosocial 'environment' or 'situation' is likely to influence turnover intentions to influence professionals' QoWL, which is the personal behavioural response to the perceived work quality. Safety culture and type of mental health facility will have an interaction effect on turnover intentions and QoWL of mental health workers in Ghana.

The term "risk", while used in most fields, is a debatable concept (Blaikie, Cannon, Davis, & Wisner, 2014). Essentially, the risk increases the chance of individuals to develop a disease, injury or disability (WHO, 2018c). The probability of being exposed to health hazards is crucial to the identification and evaluation of risks (Donaldson, Panesar, & Darzi, 2014). A study by Donaldson and colleagues on 2010 incidents among acutely ill patients in England indicated that about 23% of common incident types were due to the inability to identify or act on risks. Consequently, the right evaluation of risk is needed to safeguard the health and safety of humans and their environment. Analysing risk within the context of occupational environments needs a comprehensive approach (WHO, 2018a). Also, the risk analysis process correlates positively with safety culture and forms a core foundation to a good organisational culture at the organisational level (Adem, Çolak, & Dağdeviren, 2018; Stock, & McFadden, 2017).

In practice, the process of risk analysis is made up of risk assessment, risk management and risk communication (Trevena, 2014). Risk assessment is the process of estimating potential or actual adverse health outcomes due to human exposure to hazards. This scientific process includes hazard identification, hazard characterization, exposure assessment and risk characterization (WHO, 2018b). A good risk assessment provides a foundation for adequate risk management (Trevena, 2014). Risk management is identical to risk-benefit evaluation and involves decision-making. It comprises of risk evaluation, emission and exposure control, and risk monitoring. Essentially, a suitable risk management process demands a complex multidisciplinary approach to respond to hazards (Esswein et al., 2014). Nevertheless, transparency within this process is also crucial in risk management as it has the

possibility to influence perceived risk and prospective actions (Sparrevik, Ellen, & Duijn, 2011).

In healthcare settings, managing risk will "not only improve patient safety and healthcare quality but will also reduce unnecessary costs, expenditures and staff workload" (Huang, Iqbal, & Li, 2018, p. 1). Evidence from a study by Schwensen, White, Thyssen, Menné and Johansen (2015) noted that contact allergy epidemics to preservatives used in cosmetics occurred between 1985 and 2013 due to failures in risk assessment and risk management. This led to an increase in the total contact allergy prevalence from 6.7% to 11.8%. This negatively affected the public health and overall quality of life of patients in Europe. Similarly, failures in risk assessment, especially in the scope of 'risk' conceptualisation and safety planning were reported among Irish mental health nurses. Staff was noted to assess some risk factors better than others. For example, risks for violence, suicide were better assessed and managed than patients' risk from others, and iatrogenic risk (Higgins et al., 2016).

Furthermore, the consequence of risk assessment and management should be conveyed to stakeholders through the risk communication process. In order to achieve the organisational goals of risk analysis, risk assessments and management outcomes should be expressed in simple and credible terms to all persons (Shrivastava, Shrivastava, & Ramasamy, 2016). Evidence showed that susceptible populations could be saved in periods of health emergencies like disease outbreaks and radiation leakages if they had good access to effective and fast communication (Shrivastava et al., 2016; Zipkin et al., 2014). For example, delayed and poor risk communication during the 2014-2015 Ebola virus disease outbreaks affected disease control efforts and global health outcomes. Logistic regression analysis among 10,604 respondents from Sierra

Leone indicated that gaps in effective risk communication like misconceptions and poor information exposure led to risk behaviour patterns during the viral outbreak (Winters et al., 2018).

The Concept of Safety Culture

Safety culture is "the attitudes, beliefs, perceptions, and values that employees share in relation to safety" (Chib, & Kanetkar, 2014, p. 131). This is a component of the overall organisational culture that is concerned with safety-related issues in the organisation (DeMaria, 2017). Safety culture is a major concern for industries like construction, nuclear science, healthcare, aviation, oil and gas and many others (Cunningham et al., 2018; DiCuccio, 2015; Gotcheva et al., 2016). For instance, sharing safety concerns and information openly influence organisational safety culture towards positive safety values, beliefs, and practices (Guldenmund, 2017). The 'typology of organizational safety culture' which was first developed by Westrum (1991) was classified on three levels; pathological (power-oriented), bureaucratic (rule-oriented) and generative (performance-oriented). Safety culture is positive and well developed in an organisation when it reaches the generative level (Goncalves Filho, & Waterson, 2018). This typology of safety culture was expanded by Reason (1997) by including 'reactive and proactive levels' in-between Westrum's pathological and generative levels.

According to Cole, Stevens-Adams and Wenner (2013), there exist some intrinsic flaws regarding safety culture as a construct, though, a substantial amount of research had been conducted on it. The first weakness regarding this construct is the absence of a universally agreed approach to defining and assessing safety culture by researchers. For example, several authors (Chang et al., 2015; Chib, & Kanetkar; Cooper, 2000; Cox, & Cox, 1991; Hofmann et al., 2017; Guldenmund, 2017) have given different definitions to safety culture.

Also, the second weakness regarding the safety culture construct is the confusing approach of measuring safety culture using safety climate. This gap according to Cole et al. had led most researchers to measure safety climate instead of safety culture. The third weakness is the excessive use of diagnostic safety culture assessment techniques instead of predictive approaches. Thus, constructive approaches to developing safety culture interventions according to Cole et al. are often not given due attention compared to the evaluation of employee's safety-related perceptions. Notwithstanding these flaws, common constituents of safety culture as measured by researchers include management and employees' commitment to safety, management action, perceived risk levels, accident causation perceptions, emergency response procedures, communication and delivery of safety training (Chang et al., 2015).

Clearly, the need to maintain a positive culture of safety has led to a paradigm shift towards understanding the psychosocial work environment and human factors like gender, age and sickness at work (Acquaah, & Sarfo, 2014; Eriksen, Hogh, & Hansen, 2016; Salin, 2015). In a study among Australians, poor psychosocial safety climate was seen to have led to safety problems like violence, work pressure and bullying at work. This also affected workers' physical health and compensation injury claims (Bailey, Dollard, McLinton, & Richards, 2015). Similarly, Acquaah and Sarfo reported that higher workload and work control levels among Swedish women increased the likelihood of their sickness absence. In contrast, only a higher workload burden increased the likelihood of sickness absence among Swedish men. Besides the psychosocial and employee characteristics, studies have shown that organisational safety culture is influenced by the national culture (Barbaranelli, Petitta, & Probst, 2015; Wagner, Smits, Sorra, & Huang, 2013). For example, a cross-national study among 562 oil and gas workers revealed that Anglo employees were more

willing than Southern Asians to report errors (Casey, Riseborough, & Krauss, 2015).

Safety Culture in International Healthcare

Safety culture in hospitals is concerned with how safety is perceived, formulated, shared and practised by healthcare institutions (Garrouste-Orgeas et al., 2015). It also includes systems for the prevention and management of hospital errors (Campione, & Famolaro, 2018). Globally, the trend in safety culture research among healthcare settings has shifted towards ways of restructuring safety culture to improve service quality outcomes and satisfaction (Shahian, Liu, Rossi, Mort, & Normand, 2018; Stock, & McFadden, 2017). This shift is argued to have been precipitated by the initial report of the Institute of Medicine titled, "to err is human". This report outlined that between 44,000 and 98,000 patients die each year in healthcare facilities due to medical errors in the United States (Kohn, Corrigan, & Donaldson, 1999). Seventeen years after this report, safety culture in 54 American hospitals positively correlated with quality patient care and satisfaction (Stock, & McFadden, 2017).

Similarly, a cross-country study done among 471 hospitals indicated that American respondents had positive safety culture scores than Dutch and Taiwanese respondents (Wagner et al., 2013). Though the American health system seems to be doing better in safety culture than several countries, evidence suggested that poor safety culture, leading to medical errors forms the third leading cause of death in the United States of America (Makary, & Daniel, 2016). Equally, poor safety issues like poor staffing, increasing risk of violence and the absence of being heard within the health system affected English mental health workers. This qualitative study showed that such events in developed regions, affect the safety culture and the morale of staff (Totman, Hundt, Wearn, Paul, & Johnson, 2011).

Essentially, developed nations like the United States of America and England are more likely to have a better safety culture compared to developing African countries due to several factors (Jha et al., 2013). For example, though the practice milieu for nurses in South Africa was positive, poor governance, inadequate human and material resources led to high levels of employee burnout (Klopper, Coetzee, Pretorius, & Bester, 2012). In Sierra Leone, Liberia and Guinea, unsafe burial practices, ineffective safety communication, and risk behaviour patterns sustained the cycle of Ebola transmission in these countries and led to several deaths among the general population (Tiffany et al., 2017; Winters et al., 2018). Failure to implement safety protocols is not always an indication of poor knowledge among health workers in developing countries. Evidence suggests that though 80% of nurses in southwestern Nigeria had good safety knowledge, 43% of the total sample failed to adopt World Health Organization's [WHO] safety protocols (Fajemilehin, Oyediran, Faronbi, & Ajibade, 2016). As has been the trend from 2011, high-income countries are reported as having better healthcare resources and systems than low- and lower-middle-income countries (WHO, 2011a; 2015).

Safety Culture in National Healthcare

Safety culture in Ghana's healthcare is influenced by policy and resources (Amponsah-Tawaih, & Adu, 2016; Puplampu, & Quartey, 2012). Regarding policy on OHS in Ghana, there is no comprehensive national policy. The work of the State to pass a draft policy written together by the Ministries of Labour, Health, Mines and Energy is yet to be completed (Clarke, 2006). Currently, the only existing policy document for health services in Ghana is the Occupational Health and Safety Policy and Guidelines for the Health Sector (MoH, & GHS, 2010). Apart from this policy, healthcare workers are guided locally by the 1992 Constitution of Ghana, Labour Act, 2003 (Act 651),

Workmen's Compensation Regulations, 1967 (L.I. 546), Factories, Offices and Shops (Amendment) Law, 1983 (PNDCL 66), and the Minerals and Mining (Amendment) Law, 2015 (Act 900). In addition, workers are also guided by international conventions like the International Labour Organization convention 155 on OHS and Convention 161 on Occupational Health Services. Overall, these OHS policies and guideline documents outline the basic tenets for a safe and healthy work environment in the country. Though it is applicable to all health institutions in the country and clearly written, the absence of a national policy according to Clarke serves as a challenging gap.

In addition to the legal and policy inadequacies, few studies in Ghana (Abaa et al., 2013; Atindanbila et al., 2012; Boafo, 2016a, 2018; Jack et al., 2015) have been conducted on organisational safety culture in healthcare settings. Notwithstanding this gap, results from these studies, mostly quantitative, have reported a high rate of serious negative safety events. For example, health workers in Ashanti Region reported an increase in the prevalence of sharps-related injuries and exposure to blood-borne pathogens. The study showed about 30% of respondents within a year had been exposed (Lori, McCullagh, Krueger, & Oteng, 2016). Correspondingly, qualitative studies have confirmed these safety culture problems in Ghana. In a qualitative study among 24 respondents in Greater Accra, Eastern, Volta, Ashanti and Northern Regions, results showed cases of increased workload and violence against staff (Boafo, 2016b). Also, a qualitative study among 20 nurses in emergency centres in Ghana's Volta Region detailed how stress at work, poor communication, absence of material and human resources negatively affected their OHS and work quality (Atakro, Gross, Sarpong, Armah, & Akuoko, 2017).

Consequently, poor safety culture within Ghana's health system has led to high staff emigration and turnover rates over the years (Abuosi, & Abor,

2015). In a cross-sectional study among 592 Ghanaian health workers, safety problems like physical, verbal and sexual abuse increased the likelihood for professional nurses to have emigration intentions. Though the study failed to report the qualitative violent experiences against healthcare employees, 48.9% of participants had emigration intentions (Boafo, 2016a). In addition, the intentions of health workers to emigrate from Ghana due to safety culture issues are not discouraged by strict foreign immigration laws. In a study by Teye, Setrana and Acheampong (2015), 60% and 28% of nurses and doctors respectively reported their intentions to leave Ghana amidst unfavourable foreign laws. Also, health workers' intentions to emigrate or leave post have been reported to be influenced by inadequate material resources, favourable protecting policies and poor job satisfaction (Doku, Wusu-Takyi, & Awakame, 2012). According to Jack et al. (2013), mental health workers in Ghana were discouraged at work due to the absence of adequate resources in their work environment like infrastructure and medicines.

The Concept of Quality-of-Work-Life

Organisational QoWL is "the dynamic and comprehensive management of physical, technological, social and psychological factors that affect culture and renew the organisational environment" (Aketch, Odera, Chepkuto, & Okaka, 2012, p. 383). It is also associated with psychological wellness such as positive feelings and attitudes employees have towards their work (Marini, & Stebnicki, 2012). Though QoWL is popular in literature, evidence found in many studies has shown little agreement as to how to define the term or which indicators are to be assessed (Easton, & Van Laar, 2013).

QoWL studies have their roots from Maslow's (1943; 1954) 'theory of higher needs' and Herzberg's (1966) 'hygiene theory'. One of the earliest works to introduce QoWL theory was by Mayo in 1960. After Mayo's (1960) work

which identified the human problems at the workplace, Hackman and Oldham (1974) proposed the preliminary areas of QoWL importance. According to Hackman and Oldham, a positive QoWL is dependent on skill variety, task identity, task significance, autonomy, and feedback. In 1976, these authorities (Hackman and Oldham) modified the components to eight key factors including sufficient and just compensation, health and safety issues, immediate opportunity for capacity use and development, additional prospect for continuous development and safety, promotion of social integration in the working environment, work organization's constitutionalism, social significance of the employee's life, and overall space of life. In their view, employees who had positive QoWL were more likely to have a corresponding high intrinsic work motivation. However, the less satisfied employees were more likely to have higher turnover rates and absenteeism (Hackman, & Oldham, 1976). Though their second framework introduced the OHS issues, safety culture was not fully exhausted. In summary, they described QoWL as the relationship between work-environment, experiences and individual needs (Hackman, & Oldhams, 1980).

The next QoWL framework was developed using Western and Eastern European samples (Taylor, 1979). QoWL was noted to be influenced by both intrinsic and extrinsic factors. Unlike Hackman and Oldham's (1974, 1979) QoWL's theory, Taylor's (1979) QoWL framework included nine components. These included individual employee's power, individual employee's involvement in the management, fairness, and equity, social support, use of employee's existing skills, self-development, a significant future at work, the social significance of work or product, and effect on additional work activities. From this concept, Taylor (1979) emphasised on how employees' perceived their psychosocial work environment to define QoWL. Similarly, Warr, Cook,

and Wall (1979) identified psychosocial components of QoWL. Their QoWL framework also included components such as employee's work involvement, job satisfaction, intrinsic job motivation, higher-order need strength, life satisfaction, personal happiness, perceived intrinsic job characteristics, and level of self-rated anxiety (Warr et al., 1979). In contrast to previous theorists (e.g. Hackman, Oldham, and Taylor), mental health problems like anxiety were initially introduced as a measure of QoWL (Warr et al., 1979).

Furthermore, Mirvis and Lawler (1984) identified six components of QoWL that included a safe and healthy work environment, fair employees' wages, advancement opportunities for employees, growth and learning opportunities for employees, equal opportunities for employment, and employees' rights protection. Their QoWL scope introduced new factors like employees' rights protection and equal opportunities. Again, the importance of a safe and healthy work-environment was generally acknowledged in their model. Unlike Warr et al. (1979), Mirvis and Lawler reintroduced the role of perceived safe and healthy work-environment. This previous scope was broadened by Baba and Jamal (1991) using nurse respondents. QoWL was described by Baba and Jamal to be influenced by employees' perceptions about their job milieu. The components of QoWL in their study included job satisfaction, job stress, job involvement, work role ambiguity, work role overload, work role conflict, turnover intentions, and organisational commitment (Baba, & Jamal, 1991). Unlike previous authors (Hackman, Oldham, Taylor, Mirvis, Lawler), Baba and Jamal introduced employee's turnover intention as a measure of QoWL.

Beginning from the year 2000, QoWL was defined in terms of employees' needs at their work and how they reached equilibrium with their personal life domains like leisure, family, friends, health, and education (Sirgy,

Efraty, Siegel, & Dong-Jin, 2001). According to Sirgy and colleagues, employees' need for satisfaction is achieved when optimal levels of job requirements, supervisory behaviour, work-environment, ancillary programmes, and organizational commitment are positively met. Based on Sirgy and colleagues' work, QoWL influenced the behavioural responses and perceptions of employees. Ellis and Pompli (2002), like Baba and Jamal (1991), identified the following factors as key to nurses' levels of QoWL. These factors included the absence of involvement in decision making, absence of opportunity to learn new skills, absence of recognition, and failure to deliver the preferred quality of care. Additional components of QoWL according to their framework included poor relationships with supervisors/peers, poor working environments, professional isolation, resident aggression, role conflict, shift-work, the stability of work and family, and workload.

Approaching the first decade in the new millennium, a new QoWL framework was introduced by Van Laar, Edwards, and Easton (2007). They identified six independent psychosocial dimensions based on gaps in previous theories. These dimensions included job and career satisfaction, general well-being, stress at work, control at work, home-work interface, and working conditions. Unlike previous reviewed theoretical frameworks, their framework introduced the 'home-work interface', though it paid little attention to the safety culture of workers (Edwards, Van Laar, Easton, & Kinman, 2009). Essentially, most contemporary theorists (Edwards et al., 2009; Sirgy et al., 2001) ignored mental health problems like anxiety and depression in the construction of their QoWL concept. Although little agreement could be noted among QoWL researchers, QoWL and safety culture are more likely to have some associations (Bragard, Dupuis, & Fleet, 2015; Easton, & Van Laar, 2013). This assertion is also confirmed by Easton and Van Laar's (2012) claim that "whilst some

authors have emphasised the workplace aspects contributing to QoWL, others have identified the relevance of personality factors, psychological wellbeing, and the broader concepts of happiness and life satisfaction" (p.13).

Quality-of-Work-Life in International Healthcare

Globally, QoWL is essential for health workers due to the nature of their job (Bragard et al., 2015). Health workers are faced with challenges regarding job stress levels, autonomy, poor work schedule, inadequate support, turnover intentions, and job satisfaction (Han, Trinkoff, & Gurses, 2015; Laschinger, & Fida, 2015). According to Han et al., work-related factors like autonomy and support from peers and supervisors affected job satisfaction and turnover intentions among 5000 randomly selected nurses in the United States. From the results, nurses with moderate and high psychological job demands were 2 and 4 times likely to be dissatisfied with their jobs respectively. Also, nurses who were dissatisfied were 49% likely to also have increased working hours than satisfied nurses.

A similar trend was found among European health workers in a study among nurses from 12 countries. Results showed that longer working hours significantly associated with QoWL components like mental health, job dissatisfaction, and turnover intentions (Dall'Ora, Griffiths, Ball, Simon, & Aiken, 2015). Dall'Ora et al. found out that nurses who work 12 hours or more were 1.26 times more likely to experience emotional exhaustion than those working 8 hours or less. In addition, those who work 12 hours or more were depersonalised (1.21 times more likely) and had a low personal achievement (1.39 times more likely) than those working 8 hours or less. Again, those who work 12 hours or more were generally dissatisfied with their jobs (1.40 times more likely), dissatisfied with work schedule flexibility (1.15 times more likely)

and had turnover intentions (1.29 times more likely) than those working 8 hours or less.

In Africa, poor work and study conditions are the major demotivation factors that affect QoWL of health workers (Faye, Fournier, & Dumont, 2016). Akinyemi and Atilola (2013) found out that though 55.2% of Nigerian doctors were satisfied at work. They noted that job satisfaction of these medical doctors was predicted by lower age, prospects for career advancement, work autonomy, core personal and professional value alignment with the job, and working environment. Though the turnover of health workers is common among African countries, the rate of leaving is influenced by the country of work (Boafo, 2016a). A quantitative study among 2,220 nurses from Tanzania, Malawi, and South Africa showed that those who are dissatisfied are likely to leave their positions. Results indicated that 41.4% of South Africans compared to 26.5% Malawians and 18.8% Tanzanians had significant turnover intentions ($\chi^2 = 83.5$, $\rho < 0.001$).

Furthermore, QoWL issues among health workers from developing countries have caused them to emigrate to other countries (Labonté et al., 2015). Countries in Africa spend approximately US$ 65,997 and US$ 43,180 to train a medical doctor and a nurse from primary to tertiary level respectively (Kirigia, Gbary, Muthuri, Nyoni, & Seddoh, 2006). However, Kirigia et al. identified that these countries lose approximately US$ 517,931 and US$ 338,868 worth of returns from their investments if a single medical doctor and a nurse emigrate respectively. Though these economic losses are disabling to the development of these countries, it is notable that emigration due to poor QoWL and declining standards seem inevitable (Kirigia, Gbary, Muthuri, Nyoni, & Seddoh, 2006). In Sierra Leone, for example, nearly 40% of its nursing workforce emigrate due to negative issues like bad working environments, poorly regulated systems for

promotion, poor salaries, and lack of incentives (Umar, Umar, Amina, Strasser, & Ibraheem, 2014).

This challenge has not improved over a decade ago as reported by Ehlers, Oosthuizen, Bezuidenhout, Monareng and Jooste (2003) that 60% out of 453 South African nurses gave similar reasons for their emigration intentions. In some cases, some migrant health workers end up in non-health professions or non-intended countries due to immigration laws or language barriers (Jirovsky, Hoffmann, Maier, & Kutalek, 2015). According to Jirovsky et al. some sub-Saharan health workers in Austria who migrated due to poor QoWL could not work in their field, while others were discriminated against. Although health workers' QoWL in developed nations are challenged, evidence shows that those in developing nations have the worst cases (WHO, 2015).

Quality-of-Work-Life in National Healthcare

In Ghana, QoWL studies show that health workers have poor job satisfaction and high turnover intentions (Bonenberger et al., 2014). For instance, job satisfaction among nurses in Ghana correlated negatively with verbal ($r = -.22$, $p < .05$) and physical abuse ($r = -.091$, $p < .05$). Also, poor QoWL factors have led to poor retention of health workers due to turnover and emigration has affected the health worker-patient ratio in Ghana (Boafo, 2016a). Ghana by the year 2009 was recognised as the leading country in West Africa with the highest emigration rate of about 46% of highly skilled labour. These numbers of skilled labour included a considerable number of nurses and medical doctors (International Organisation for Migration, 2009).

According to the Nursing and Midwifery Council of Ghana, a higher percentage of nurses and midwives leaving Ghana, often emigrate to developed countries like the United Kingdom and the United States of America for better QoWL and standards of living (Antwi, & Phillips, 2013). Trend analysis from

Ghanaian verification data revealed that a total of 3,087 nurses emigrated between the periods of 1998 and 2003 to practice abroad (Buchan, & Dovlo, 2004). According to Boafo (2016a), 48.9% of 592 professional nurses from 12 public Ghanaian hospitals had emigration intentions. Though this percentage is not representative of the entire health workforce, there is an indication that there are QoWL challenges in Ghana. Another trend study indicated a 12% decline between 2000 and 2003, in the nurse-supply trends for six (6) African countries (Awases et al., 2004). In a quantitative study by Bonenberger et al. (2014), health workers' motivation and job satisfaction related to factors like turnover intention, career development, workload, management behaviour, and burnout. Although this study's (Bonenberger et al.) results were limited to only health workers in the Eastern Region, findings are consistent with other local studies which revealed significant associations between safety culture and QoWL (Boafo, 2016a, 2018; Sacks, Alva, Magalona, & Vesel, 2015).

Furthermore, the implications of poor QoWL among health workers in Ghana are serious. Notwithstanding the number of nurses who left the country between 2000 and 2003, Ghana produced about 409 nurses each year within the said period. This worsened the case of OHS risks as a newly trained nurse was supposed to care for 49,000 Ghanaians per year (Dovlo, & Martineau, 2004). Besides, this event had affected the quality of patient care and the general wellbeing of health workers (Abuosi, & Abor, 2015; Boafo, 2016a; Bonenberger et al., 2014). Notwithstanding these evident shortcomings in the Ghanaian health delivery system, little is known regarding the qualitative and quantitative nature of QoWL among mental health workers and how it is influenced by their safety culture at work.

According to the 2014 edition of Mental Health Atlas, the general workforce within the mental health field includes; "psychiatrists, other medical doctors, nurses, psychologists, social workers, occupational therapists and other paid workers working in mental health" (WHO, 2015, p. 34). Even though nurses formed the largest category of employees within the mental health workforce, low-and-lower-middle income countries generally have fewer employees compared to high-income countries. Estimates by WHO indicates a poor global median ratio of "9 per 100,000 population, or less than one mental health worker for every 10,000 people" (p. 34). This statistic is even worse in low-income countries like Ghana who have an estimated ratio of below 1 mental health worker per 100,000 population compared to over 50 per 100,000 population in high-income nations (WHO, 2015).

Comparing the 2014 Mental Health Atlas to the 2011 Mental Health Atlas, WHO increased the number of coverage countries from 82 to 130. Nonetheless, estimates of the global median of workforce decreased from 10.7 to 9. In addition, the 2011 estimates showed a decrease in the median of the mental health workforce in the African Region from 1.7 (n = 25) to 1.4 (n = 34) in 2014 (WHO, 2011a; 2015). Atlas 2014 also indicated that a lot of countries in the world do not have policies and laws which fully comply with global human rights legislation. It is also noted that some of these national instruments were weakly implemented (WHO, 2015).

Although there are limited numbers of studies regarding how safety culture influence QoWL among mental health workers in some regions like Greater Accra, there is evidence linking poor safety culture and QoWL issues like job dissatisfaction, mental health disorders, and turnover (Atindanbila et

al., 2013; Bonfa, 2016a; Gyensare et al., 2017; Jack et al., 2015; Rössler, 2012; Sarfo, & Asiedu, 2013). For example, Gyensare and colleagues' study reported that job satisfaction significantly affected mental health nurses' continuous engagement ($\beta = 0.22$, $\rho < 0.001$). Though this is one of the pioneer studies in this area, it concentrated on few components like job satisfaction, OHS management factors like safety supervision, engagement and turnover intentions in one major mental health hospital in Ghana. Thus, neglecting other mental health workers and their lived experiences.

Even among some foreign studies, this same trend is seen. For example, a study among nurses in Turkish hospitals indicated that employees' burnout related positively with job dissatisfaction and negative work attitudes. Employees who had higher levels of burnout also had higher levels of depression, psychosomatic symptoms, chronic fatigue, and declined levels of home-and-subjective life satisfaction (Burke et al., 2010). Moreover, media evidence over the years shows a series of demonstrations and strikes by mental health workers in Ghana over poor safety culture issues (GhanaWeb, 2016a, 2016b). A recent call by the Chief Executive Officer of the Mental Health Authority, Dr. Akwasi Osei indicated clearly the central government's failure to release funds needed for the management of mental health facilities in the country. In an interview on Power 97.9 FM, Dr. Akwasi Osei added that "patients may march to Parliament. It is not only the Mental Health Authority but also the psychiatric hospitals and patients have to be fed, they have to be given medications, they have to be given detergents and other supplies" (Power FM, 2018).

Conceptual Framework

Figure 1 depicts the conceptual framework guiding the current study. This framework was adapted from Bandura's (1978) model of reciprocal

determinism, Cooper's (1993) reciprocal safety culture model, and related studies on safety culture, turnover intentions, and QoWL among health workers (Boafo, 2016a; Jack et al., 2015; Teye et al., 2015). Safety culture will affect the QoWL of mental health workers (Alsaraireh et al., 2014; Atindanbila et al., 2012). Also, turnover intentions will significantly mediate the effect of safety culture on QoWL of mental health workers (Huang et al., 2016). Finally, mental health facilities will significantly moderate the effect of safety culture on turnover intentions and QoWL of mental health workers (Salin, 2015; Zhang et al., 2014).

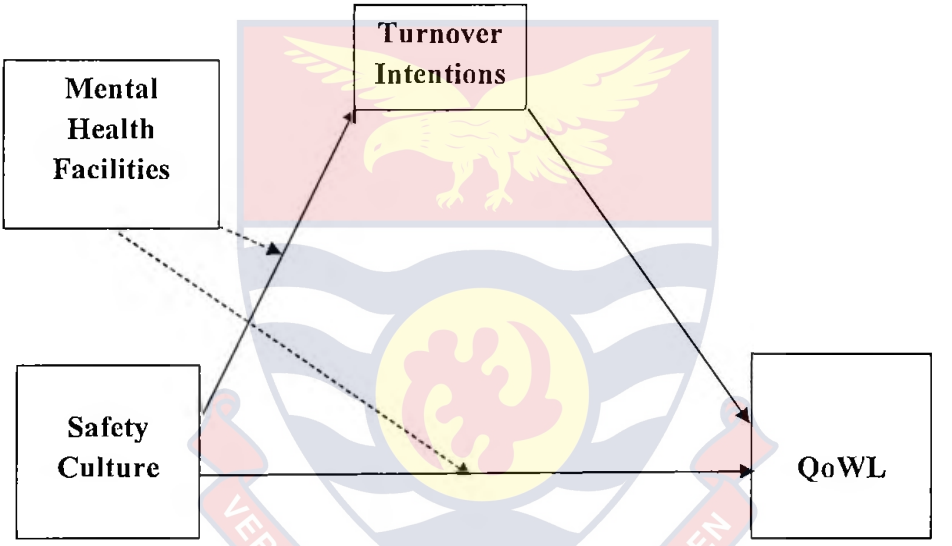

Figure 1: Conceptual Framework (Bandura, 1978; Cooper, 1993; Huang et al., 2016; Salin, 2015; Zhang et al., 2014).

Summary

The chapter reviewed empirical evidence under the theoretical base of the study and related studies. Bandura's model of reciprocal determinism and Cooper's reciprocal safety culture model explained a reversible sequential model of influence, where a mental health worker could be affected by his/her organisational safety culture to experience a particular QoWL. In addition, a review of related studies examined and analysed literature under the risk analysis process, the concept of safety culture, safety culture in international

healthcare and the safety culture in the Ghanaian healthcare system. It also analysed literature on the concept of QoWL. Over the years, researchers have disagreed on the actual contributing aspects of both safety culture and QoWL. Though paucity of data exists regarding the OHS status of mental health workers in Ghana, safety culture is more likely to influence QoWL.

CHAPTER THREE

RESEARCH METHODS

The purposes of this study were to: (1) determine the existing safety culture and its effluence on QoWL including violence experienced, among mental health workers, (2) explore the interaction effects of marital status, number of violence and shift on absence due to sickness among the workers, (3) test the path relationships among safety culture, QoWL, turnover intentions, and type of mental health facilities of the workers, and (4) explore the lived safety culture experiences and how they produce QoWL perceptions among mental health workers in Ghana. This chapter describes the research methods, including the research design, population, sampling procedure, and the data collection instruments used. In addition, it contains data collection procedure, and data processing and analysis.

Research Design

The mixed methods design (Creswell, & Creswell, 2017) was used in this study. "As a method, it focused on collecting, analysing, and mixing both quantitative and qualitative data in a single study" (Creswell, & Clark, 2007, p. 5). Again, the concurrent explanatory approach was employed to collect and analyse both quantitative and qualitative data. In this approach, the researcher does not wait for one period of data collection method to elapse before initiating the other method (Terrell, 2011). As an advantage, each method simultaneously compliments the other and enables the triangulation of data within the same time frame (Creswell, & Clark, 2007). According to Terrill (2011), this strategy is time and effort consuming compared to using either quantitative or qualitative methods. Nevertheless, Creswell and Clark emphasised that mixed methods design "provides a better understanding of research problems than either approach alone" (p. 5).

The mixed methods design is grounded on William James' Pragmatic Theory of Truth (James, 1907). Pragmatism has been emphasised by researchers as an essential paradigm due to its practical and contextually responsive nature (Morgan, 2014). Again, the combination of both quantitative and qualitative data is preferable to many behavioural researchers by reason of its consistency with the real world of humans and its ability to yield ample evidence (Lofthus et al., 2018; Lucero et al., 2018). Moreover, the mixed methods design has been used in fields like health (Benning et al., 2011) and construction (Abowitz, & Toole, 2009).

Study Area

The study was conducted in the Central and Greater Accra Regions of Ghana (Figure 2). These are the only locations having tertiary level Psychiatric Hospitals that provide chronic, acute, rehabilitation and community mental healthcare services (Arias, Taylor, Ofori-Atta, & Bradley, 2016). These hospitals include Accra Psychiatric Hospital [Accra], Ankaful Psychiatric Hospital [Cape Coast] and Pantang Hospital [Accra] (Mental Health Authority, 2018a). Accra Psychiatric Hospital is the first specialist mental health institution in Ghana. It began at Adabraka in 1904 in the then Gold Coast, following overcrowding incidence at the Lunatic Asylum in Accra. In 1906, it was commissioned as Accra Psychiatric Hospital to house 200 patients. Currently, it has been expanded to have a 600-bed capacity (Mental Health Authority, 2018c).

Subsequent to the establishment of Accra Psychiatric Hospital is Ankaful Psychiatric Hospital in Cape Coast. This second specialist mental health facility was set up to decongest Accra Psychiatric Hospital. It was established in 1965 under the leadership of psychiatrists - Dr. Sangmuah, Dr. Sika-Nartey, and Dr. Atsor. After its establishment, the hospital now has 500

beds for patients (Mental Health Authority, 2018a). According to the Mental Health Authority, the third specialist hospital for mental health care in Ghana is Pantang Hospital in Accra. This facility was commissioned in 1975 by General I. K. Acheampong. Dr. Sika-Nartey was appointed from Ankaful Psychiatric Hospital as the head to this new hospital. Like Ankaful Psychiatric Hospital, it also has a 500 patient bed capacity. As of 2017, these three facilities employ approximately 44% of mental health workers in Ghana (Mental Health Authority, 2018a).

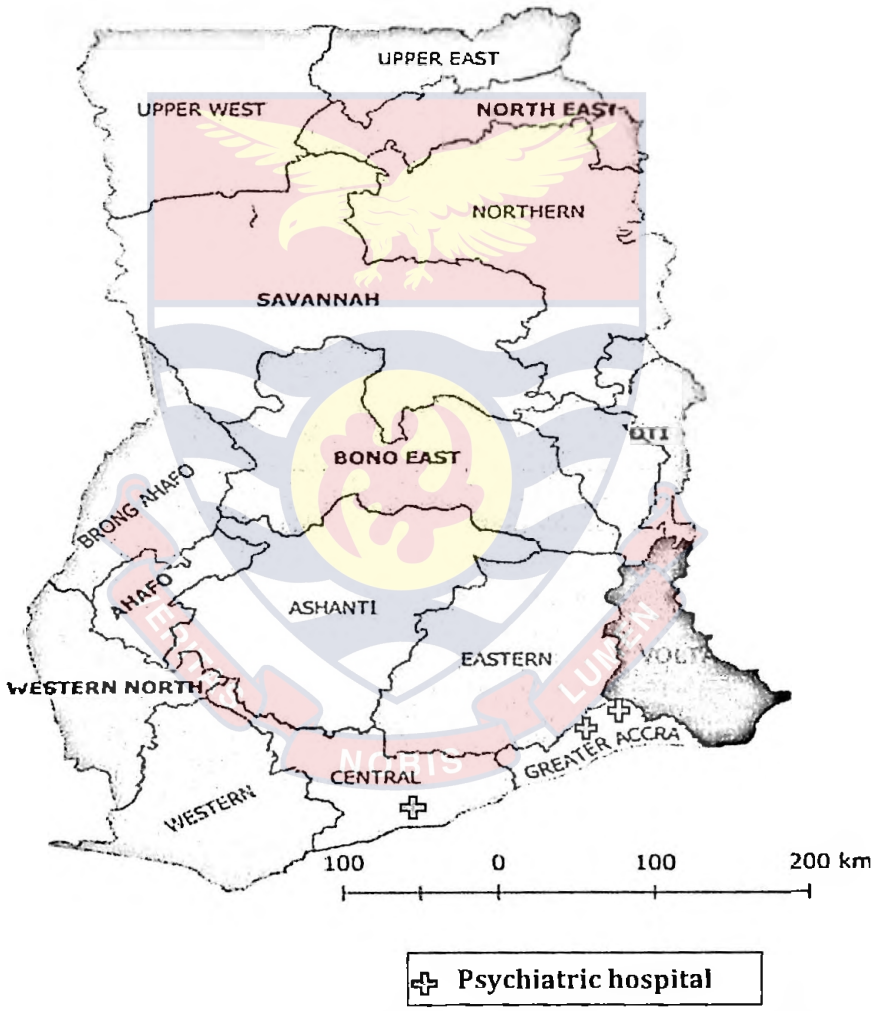

Figure 2: Tertiary Level Psychiatric Hospitals in Ghana (Arias et al., 2016).

These three specialist hospitals are approved by Ghana's Ministry of Health as facilities under the Mental Health Authority, they serve as the benchmark for quality mental health care in the country. Also, they serve as

standards for OHS practice and professional training grounds for mental health in the country (Mental Health Authority, 2018a). Though these specialist hospitals provide tertiary mental health care, they are all poorly funded, overcrowded with patients, and have some challenging issues with OHS (Fournier, 2011; Mfoafo-M'Carthy, & Sossou, 2017; WHO, 2011b).

Population

According to the Mental Health Authority (2018a), Ghana in 2017 had an estimated population of 2,953 mental health workers. However, approximately 1,306 of mental health workers in Ghana are distributed among the three specialist hospitals; Accra Psychiatric Hospital (47.86%), Pantang Hospital (30.09%) and Ankaful Psychiatric Hospital (22.05%). Among this population, nurses [of all categories] occupy the majority 91.48% of the mental health Workforce. The percentage of nurses included 44.77% in Accra Psychiatric Hospital, 25.65% in Ankaful Psychiatric Hospital and 21.06% in Pantang Hospital.

Additionally, a minority of professionals in these settings included psychiatrists, clinical psychiatric officers, clinical psychologists and occupational therapists (Agyapong et al., 2015; Ghana Health Service, 2017; Mfoafo-M'Carthy, & Sossou, 2017). Human resource records showed that 53 and 72 mental health workers were reported in 2016 and 2017 respectively as cases of staff attrition and wastage in these psychiatric hospitals. Among these figures, 7 mental health workers vacated their post in 2016 compared to 18 staff in 2017 (Mental Health Authority, 2018a).

Sampling Procedure

The sample size for the quantitative phase was determined using the Sample Size formula:

$$\text{Sample Size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1+\left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

(Survey Monkey, 2018)

Where:

N = *population size*

e = *Margin of error (percentage in decimal form)*

z = *z-score*

p = *Population Proportion*

Hence, the estimated population size [N] of mental health workers in Ghana in the three hospitals is 1,306 staff, the margin of error [e] is 5%, population proportion is 50 and z-score [z] is 1.96. This gave 298 respondents as the required sample size for the study. However, 298 respondents may not be deemed adequate, considering the possibility that the normality of the population in this study could not be measured before data collection is done (Cohen, 1988). Consequently, 620 respondents, representing 47.5% of the total population were targeted. This sample justifiably represented the population of mental health workers and therefore made the study's findings more reliable and accurate (Araujo, & Frøyland, 2007).

Correspondingly, this sample size is supported by Roscoe's (1975) rule-of-thumb that sample size more than 30 and less than 500 are adequate for behavioural science studies. In addition, Gay's (1996) rule-of-thumb affirmed that 20% is adequate if the total population is about 1,500 for a quantitative survey. Again, since the study included predictor analysis, the rule-of-thumb that $N \geq 104 + m$, where 'm' is the number of predictors was also considered. The number of predictors was 3, thus, the minimum number of participants for

the quantitative phase could not be less than 107 mental health workers (Tabachnick, & Fidell, 2001). Likewise, a sample size of a minimum of 100 cases in a descriptive survey is assumed to be adequate for meaningful generalization to be made regarding the population (Fraenkel, & Wallen, 2000).

Notwithstanding the 620 respondents, 576 respondents returned completed questionnaires which represented a response rate of approximately 92.9%. The participants comprised 32.3% (n = 186) from Accra Psychiatric Hospital, 32.5% (n = 187) from Ankaful Psychiatric Hospital and 35.2% (n = 203) from Pantang Hospital. Furthermore, this sample included 45.5% (n = 262) male and 54.5% (n = 314) female mental health workers. Age of the participants ranged from 20 to 59 years (M = 30, SD = 4.6). They included 48.8% (n = 281) married men and women, 40.8% (n = 235) singles (never married), 5.2% (n = 30) living with a partner/cohabiting, 3.50% (n = 20) separated, and 1.7% (n = 10) divorcees.

Besides, they included 7.6% (n = 44) of mental health workers who were certificate holders, 63.4% (n = 365) had diploma level education, 26.4% (n = 152) bachelor's degree, 2.1% (n = 12) master's degree, and .5% (n = 3) Doctor of Medicine (MBChB) / Specialisation in Psychiatry. The working experiences of the workers ranged from one year to about 30 years (M = 5, SD = 3.1). The mental health workers also work at different shifts including 15.1% (n = 87) who work on morning schedule only, 4.7% (n = 27) afternoon shift only, 5.0% (n = 29) night schedule only, 27.4% (n = 158) morning and afternoon shifts only and 47.7% (n = 275) work on morning, afternoon and night shifts. Furthermore, reported annual absence from duty due to sickness ranged between less than one day to a maximum of 30 days (M = 2, SD = 4.4). From the analysis, 42.9% (n = 246) workers were absent due to sickness while 57.1% (n = 329) did not report sick to work in the past year.

These mental health workers experienced various forms of violence from patients in addition to the general occupational accidents and injuries like needle stick. Of the 576 participants, 42.7% (n = 246) reported having received punches or hits from patients whereas 57.3% (n = 330) reported none of such. In addition, 24.8% (n = 143) reported of patients' attack at them during work using physical objects while 75.2% (n = 433) reported none of such. Also, 81.4% (n = 469) reported being insulted by patients while 18.6% (n = 107) did not. Furthermore, 26.2% (n = 151) reported being bitten by patients whereas 73.8% (n = 425) reported none of such events. Additionally, 39.4% (n = 227) reported that patients spattered saliva at them while on duty while 60.6% (n = 349) had not experienced such violence. Regarding patients pouring of collected urine at staff, 15.5% (n = 89) indicated experiencing such abuse at work whereas 84.5% (n = 487) experienced no such acts. Participants also included 28.0% (n = 161) of workers who reported experiences of uniforms or dresses being torn by patients, 13.5% (n = 78) who experienced physical acts of sexual assault from patients, and 19.8% (n = 114) whose patients demanded sexual favours from them. Additionally, 20.5% (n = 118) reported verbal harassment of a sexual nature from patents, 23.8% (n = 137) unwanted touching or physical contact experiences from patients, and 20.8% (n = 120) experienced other forms of unwanted sexual advances from patients.

Fifteen individual interviews were collected using audio recorders until data saturation was reached. These participants included 12 mental health workers from the three sites and three other persons (males, ages between 31 and 33 years old) who have left the mental health practice. Fifteen individual interviews were adequate according to Creswell's (2013) rule-of-thumb which suggested five to 25 interviews for phenomenological analysis. Additionally, purposive and snowball sampling strategies were used to select the 12 mental

health workers and three cases of past mental health workers for the quantitative phase. Participants who met the inclusion criteria were selected purposively after they granted consent to participate in the study. Also, due to the difficulty in identifying mental health workers with lived safety culture experiences, staff with prior information assisted me during the snowball sampling to contact such participants. The purposive sampling strategy was employed at the quantitative phase to sample 620 mental health professionals from the three hospitals.

Purposive sampling allows the selection of participants that meet a specific criterion (Gall, Gall, & Borg, 2007). This strategy allowed the selection of participants who met inclusion career qualifications and experiences. Also, it permitted me to carry out typical case sampling of both psychiatric hospitals and respondents with bad safety experiences during the qualitative phase. A limitation of this sampling method is that findings cannot be generalised beyond the characteristics of participants (Gall et al.). Moreover, the snowball sampling technique was used to select hard-to-find participants for the qualitative phase (Sadler, Lee, Lim, & Fullerton, 2010). Two participants who were already sampled purposively provided the names of two colleagues who had left the mental health field and they, in turn, provided the name of the third person. According to Etikan, Alkassim and Abubakar (2016), the snowball sampling strategy enables researchers to recruit hard-to-locate population subgroups into studies through referrals from other participants. Like the purposive sampling method, results and conclusions from studies using a snowball sampling strategy have been argued as non-generalisable (Babbie, 2007).

Nonetheless, these methods are in common use by both early and recent local and international safety culture and QoWL studies (Idoro, 2011; Ismara, Husodo, Prabandari, & Hariyono, 2019; Mullen, 2004). In addition, these studies make valid and generalised results and conclusions regarding the

specific population. Accordingly, generalization of the results and conclusions from this study to the scope of mental health in Ghana, cannot be in question. Per these two methods, mental health workers who met the inclusion criteria were selected from Ankaful, Accra and Pantang Hospitals.

Inclusion Criteria:

1. The person should currently work with the mentally ill and their families in Ankaful, Accra and Pantang Hospitals.

2. The person has current registration as a mental health professional.

3. The person failed to meet criteria one and two but had previously qualified to work with the mentally ill and their families before changing to a non-mental health profession.

Exclusion Criteria:

1. The person has worked as a mental health worker for less than 6 months prior to the data collection.

2. The person willfully refused to offer consent to participate in the study.

3. The person is on leave during the data collection period.

4. Individuals with diagnosed mental health issues.

Data Collection Instruments

Two data collection instruments were used for this study; a questionnaire and an interview guide. The questionnaire has 69 items arranged under 4 sub-sections [A, B, C, & D] (see Appendix B). Section A contains the demographic variables of participants such as age, gender, education, rank, specialty, number of years in employment, current district, shift at work, and absence due to sickness. Participants responded to this 12-item section by ticking the most appropriate option or writing brief responses in open spaces. Section B measures the turnover intentions of mental health workers. These items were adopted from Turnover Intention Scale [TIS-6] (Roodt, 2004). TIS-

6 is a 6-item version of Cape Coast Roodt institutions to either leave or stay in their current organisation. This was originally a 15-item scale but shortened to the current version to reduce potential response burden.

Items on TIS-6 have to be responded on a 5-point Likert scale, from *never (1)* to *always (5)*. Sample questions include: "*to what extent is your current job satisfying your personal needs?*", and "*how often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?*" (Roodt, 2004). TIS-6 has a Cronbach's Alpha values ranging from 0.80 (Bothma, & Roodt, 2013) to 0.88 (Oosthuizen, Coetzee, & Munro, 2016). This scale was reported by Stevens (2015) to have an eigenvalue of 3.352 which explained 55.86% of the variance and significant factor loadings of $.59 < r < .83$. TIS-6 is scored by adding scores of all 6 items together. According to Roodt, lower and higher scores of TIS-6 indicate less and more likely intent to quit job respectively.

Section C of the instrument measures the safety culture at the health facilities. Items were adapted from Airline Safety Culture Index (ASCI; Edkins, & Coakes, 1999). During the adaption of ASCI, words like 'company' and 'airline' in item 13 were replaced with 'institution' and 'health facilities' respectively. Also, 'work area' and 'employee' were changed to 'unit/ward' and 'staff' respectively. Unlike tools in health that measure patient safety, ASCI was selected due to its measure of personnel's safety culture (Boyd, Wu, & Stelfox, 2017; DiCuccio, 2015). Furthermore, the safety culture issues faced by high-risk jobs like airlines are similar to health, construction and mining (Kapur, Parand, Soukup, Reader, & Sevdalis, 2015; Lunde, Koch, Knardahl, & Veiersted, 2017).

Consequently, the total safety culture score on ASCI is classified as pathological (25-58 scores), bureaucratic/calculative (59-92 scores), or generative [93-125 scores] (Edkins, & Coakes, 1999). Pathological safety culture occurs when organisations care less about safety at work while bureaucratic safety culture permits organisations to follow blindly safety protocols at work. Generative safety culture produces the integration of safe behaviour patterns in all organisational activities (Westrum, & Adarnski, 1999; Westrum, 1991; Weick, 1987). Items on ASCI were responded on a 5-point Likert scale, from *strongly disagree (1)* to *strongly agree (5).* Sample items include: *"employees often encourage each other to work safely", "managers are aware of the main safety problems in the workplace", "managers often praise employees they see working safely"*, and *"employees follow safety rules almost all of the time."* Again, it has a Cronbach's alpha reliability coefficient of .94 (Edkins, 1998). Factorability of the ASCI's correlation matrix indicated a Kaiser-Meyer-Olkin measure of sampling adequacy of .92. Again, the 25-item scale indicated factor loadings above .30 [.38 < r < .70] (Edkins, & Coakes, 1999).

QoWL of mental health workers was covered in Section D with items from Work-Related Quality of Life [WRQoL] Scale (Easton, & Van Laar, 2012). The WRQoL scale is a 23-question scale for measuring the perceived QoWL among workers (Easton, & Van Laar). The scale is subdivided into 6 dimensions; job and career satisfaction (6 items), general well-being (6 items), home-work interface (3 items), stress at work (2 items), control at work (5 items) and working conditions (3 items). It is measured on a 5-point Likert scale, ranging from *strongly disagree (1)* to *strongly agree (5)*. Sample items include: *"I often feel under pressure at work", "when I have done a good job it is acknowledged by my line manager", "recently, I have been feeling unhappy and*

depressed", "I am satisfied with my life", "I am encouraged to develop new skills", and *"I am involved in decisions that affect me in my own area of work".* WRQoL scale has a Cronbach's Alpha reliability coefficient of .91 (Easton, & Van Laar, 2013). It is scored by excluding item 24 and adding the rest together, after reverse scoring three items (q07, q09, q19). The overall QoWL is obtained by finding the average of the 6-factor scores. A high aggregate score means positive while low means negative QoWL. The WRQoL scale indicated significant factor loadings above .60 [.89 < r < .91] (Easton, & Van Laar).

The semi-structured interview guide was made up of 3 major questions that explored the lived safety culture and quality of life as experienced by workers. These questions were derived from the literature (international and local studies) regarding the two constructs (Easton, & Van Laar, 2013; Edkins, & Coakes, 1999; Oosthuizen et al., 2016). Sample major questions include: *"can you tell me about your experiences regarding overall safety beliefs and practices at work while working as a mental health worker?"*, and *"How do your experiences regarding overall safety beliefs and practices at work affected the way you feel and act towards your work (or quality-of-work-life)?"* Additionally, questions in the form of prompts were asked to elicit clarity in response to the major questions. Examples of prompts include: *"what is your experience when it comes to the management's commitment to safety?", "what is your experience when it comes to the level of employees' commitment to safety?", "what is your experience with management action towards safety issues?", "can you describe your level of perceived safety risk as a mental health worker?", "what are your beliefs about accident causation at work?",* and *"what are the emergency procedures in place to handle occupational health and safety cases?"*

Pre-testing of the instruments

A total of 30 mental health workers from Greater Accra and Central Regions were purposefully selected to participate in the pre-test. According to Radhakrishna (2007), the reliability of an instrument can be achieved with a sample size of 20 to 30 participants in a pre-test. These participants were given a maximum of 4 days to fill the questionnaire. Subsequently, the questionnaire was collected, screened, and coded before statistical data analysis was done (Huck, 2008). Statistical analysis for correlations, validity and reliability testing were done using Statistical Package for the Social Sciences (SPSS) version 20.0 for Windows (IBM Corporation, 2011) and the PROCESS Macro, which is installed into SPSS (Hayes, 2013). Validity and reliability analyses of the quantitative instrument were examined.

Similarly, eight participants were interviewed to pre-test the qualitative instrument. The recorded interviews were saved on a computer drive and transcribed. These transcripts were analysed using IPA (Creswell, 2013). Additionally, both quantitative and qualitative instruments were provided with comment space for participants to provide feedback on clarity, length of questions and other suggestions.

Validity of instruments

Establishing the validity of the current questionnaire is essential because the items were chosen from different instruments and some modified. The validity of the questionnaire involved the following phases. Initially, a 71-item questionnaire was given to a senior mental health nurse and three psychologist assistants from the Eastern Regional Hospital, Koforidua (ERHK) to assess for its face and content validity. They also commented on the change of terms like "*company*" to "*health facility*". Furthermore, they commented on item ambiguity and grammatical errors for corrections. Similarly, an industrial

psychologist in the field of OHS examined the questionnaire for the same purpose. Consequently, their comments led to the deletion of two items that were ambiguous. Following this, the 71-item questionnaire was further refined to 69 items by the two thesis supervisors via removing two extra items that were irrelevant to the purpose of the study. Subsequently, construct validity was established (Table 1).

Establishing the construct validity of this questionnaire was necessary because the items were taken from different survey instruments. Although standardised, these instruments (ASCI, TIS-6, and WRQoL) were not developed and tested using mental health workers in Ghana. Hence, the pre-test data collected was analysed using the Confirmatory Factor Analysis. For this purpose, the Principal Component Factor analysis with Varimax Orthogonal Rotation was conducted using the SPSS software (IBM Cooperation, 2011). The factor analysis yielded three factors; safety culture, turnover intention, and QoWL. These constructs together accounted for 78% of the variance extracted by the instrument (Field, 2013). The first factor, ASCI composed of 25 items and accounted for 35% of the variance, the second factor, TIS-6 had six items with 15%, and the third factor, WRQoL 23 items with 28% variance extracted.

Table 1: Item Listings, Cronbach's Alpha (α) Coefficient and Factor Loadings for the Three Factors; ASCI, TIS-6, and WRQoL

Factors	Factor Loadings		
	1	2	3
Factor 1: ASCI ($\alpha = 0.81$)			
ASCI _1	0.67		
ASCI _2	0.64		
ASCI _3	0.71		
ASCI _4	0.68		
ASCI _5	0.73		
ASCI _6	0.76		
ASCI _7	0.69		
ASCI _8	0.76		
ASCI _9	0.69		
ASCI _10	0.72		
ASCI _11	0.71		

ASCI _12	0.74		
ASCI _13	0.72		
ASCI _14	0.74		
ASCI _15	0.68		
ASCI _16	0.74		
ASCI _17	0.70		
ASCI _18	0.71		
ASCI _19	0.72		
ASCI _20	0.71		
ASCI _21	0.76		
ASCI _22	0.72		
ASCI _23	0.71		
ASCI _24	0.68		
ASCI _25	0.71		
Factor 2: TIS-6 ($\alpha = 0.86$)			
TIS-6 _1		0.84	
TIS-6 _2		0.89	
TIS-6 _3		0.81	
TIS-6 _4		0.86	
TIS-6 _5		0.88	
TIS-6 _6		0.82	
Factor 3: WRQoL ($\alpha = 0.91$)			
WRQoL_1			0.86
WRQoL_2			0.88
WRQoL_3			0.81
WRQoL_4			0.82
WRQoL_5			0.74
WRQoL_6			0.85
WRQoL_7			0.87
WRQoL_8			0.86
WRQoL_9			0.81
WRQoL_10			0.83
WRQoL_11			0.86
WRQoL_12			0.79
WRQoL_13			0.86
WRQoL_14			0.88
WRQoL_15			0.82
WRQoL_16			0.81
WRQoL_17			0.84
WRQoL_18			0.79
WRQoL_19			0.75
WRQoL_20			0.87
WRQoL_21			0.88
WRQoL_22			0.81
WRQoL_23			0.77

Similarly, the validity of the interview guide was established following the following procedure. Initially, a 5-item semi-structured interview guide was given to a senior mental health nurse and three psychologist assistants from the ERHK to evaluate and report any sentence ambiguity or grammatical error.

Furthermore, my supervisors refined the wording and quality of prompts to enhance the guide into a 3-item instrument with 15 prompts. Furthermore, eight individual interviews were conducted to pre-test the guide.

Reliability of the instruments

Instrument reliability is the degree to which an instrument produces consistent outcomes over time (Streiner et al., 2015). Though the instruments used in the study are already existing ones that are reported to be reliable, further reliability assessment was needed. Therefore, the internal consistency reliability of items was conducted and reported using the pre-test data (Levinson, Speed, Infantolino, & Hajcak, 2017; Morera, & Stokes, 2016). The instrument recorded overall Cronbach's Alpha reliability of 0.89 with 0.81, 0.86 and 0.91 for the ASCI, TIS-6, and WRQoL, respectively using the SPSS software (IBM Cooperation, 2011). According to Hair, Anderson, Tatham and Black (2006), a Cronbach's Alpha reliability greater than 0.6 is acceptable.

Reliability in qualitative studies is the precise replicability of qualitative methods and findings (Grossoehme, 2014). My supervisors helped me to ensure the reliability at the qualitative phase via the trustworthiness of the research process. Trustworthiness was attained by following the principles of credibility, dependability, confirmability, transferability, and authenticity (Lincoln, & Guba, 1985, 1994). Also, I ensured credibility by keeping a reflective journal during data collection. This allowed me to record non-verbal behaviours and unique incidents. Also, peer-debriefing was done to give feedback regarding the research to respondents. This helped correct general errors and researcher biased assumptions. Credibility through member-checking was conducted by sharing interviews and interpretations with respondents to check its genuineness. Again, dependability was ensured by taking researcher notes of events during the study. Comprehensive notes were taken during analysis and interpretation as the study

progressed to achieve confirmability of data. Furthermore, the transferability of data was established by providing an explicit description of the research settings and bio-psychosocial factors surrounding participants' responses. Finally, authenticity was achieved through a thorough description of participants' experiences (Creswell, & Creswell, 2017; Connelly, 2016; Grossoehme, 2014).

Data Collection Procedures

Data collection ensued after approval of the research protocol was obtained from both supervisors. Subsequently, ethical authorisation to carry out the study was obtained from the Institutional Review Board [IRB] of the University of Cape Coast [UCC], Cape Coast (see Appendix E: UCCIRB/CES/2019/16). In addition to the ethical approval from the UCC-IRB, I took an introductory letter from the Department of Health, Physical Education and Recreation, UCC (see Appendices F, G, and H) to introduce myself to the Medical Directors of Ankaful, Accra and Pantang Hospitals to seek permission for data collection. In addition, an informed consent form describing the purpose of the study, estimated time required for completing the instruments and possible risks were attached to each questionnaire. Each participant signed the consent form to partake in the survey (See Appendix A).

Data collection was done at the three hospitals with assistance from three trained field assistants (FAs). The FAs with a Bachelor of Science Degree in Mental Health Nursing were recruited and offered a day's training on the research instruments to assist in the data collection. Also, they were trained on how to establish rapport and adhere to ethical requirements needed during the data collection. At this point, mental health workers from the three hospitals were contacted face-to-face in their respective units or wards for the data collection. To ensure the confidentiality and anonymity of participants, questionnaires were coded instead of the use of names of persons or units. Also,

all completed quantitative questionnaires were scored after each session and arranged into sealed envelopes to ensure the safety of responses.

Similarly, individual interviews took place at the hospitals after working hours or when participants were on break in order not to interrupt clinical duties. Risks like fatigue were handled by giving breaks to those who were tired or bored. In addition, bottled water was offered during the interview session. Interview recordings were also saved on a flash disk with a back-up on the researcher's computer to ensure their safety. FAs were given a per diem while participants were thanked after participation. The questionnaire and interview collections lasted between 30 to 45 minutes and took place within June 2019 after IRB approval had been attained.

Data Processing and Analysis

Following data collections, cleaning quantitative data begun with manual screening. I used SPSS version 20.0 for Windows (IBM Corporation, 2011) and the PROCESS Macro (Hayes, 2013) to compute the statistical analysis. Subsequently, preliminary data transformations which included scoring for z-scores, subscales and global scores for ASCI, TIS-6 and WRQoL were done. Additionally, descriptive analyses like frequencies and percentages, and correlations were run. Following the recommendation of Babbie (2007), categorical data like gender and educational level were replaced with median of nearby points while values in interval and/or ratio like items in ASCI, TIS-6, and WRQoL were replaced using the serial means for few missing values in the data. To test normality of data collected, histogram with normal distribution curve was conducted. In addition, the Leven's test of equality of error variance was used to measure the homogeneity of variance for safety culture, turnover intentions, and QoWL. The result showed a non-significant *p*-value and therefore the population of mental health is homogeneous. Moreover, the

outliers identified in the data during screening were removed since they were less than 5% of the total data collected. This removal procedure for a relatively small number of outliers is justified by Field (2013). Finally, the analyses of data were computed according to each research question.

Research question one: What is the association between the type of psychiatric hospital and nature of violence experienced by mental health workers in Ghana?

Research question one explores the relationship that exists between being a worker at these mental health facilities (Accra, Ankaful and Pantang Hospitals) and the nature of violence experienced by workers. It was expected that the mental health workers would report experiencing violence such experienced by mental health workers that were reported by participants included abusive behaviours like insults, spits of saliva, pouring of urine, verbal curses, and attacks using physical objects from patients. Additional violent experiences may include unwanted touching or physical contact, unwanted sexual advances, bites, dress torn by patients, demands for sexual favours, physical acts of sexual assault and physical acts of sexual assault. Since the type of mental health facilities was measured as a categorical variable on three levels (Accra, Ankaful and Pantang Hospitals) and nature of violence on two levels (Yes/No), Chi-Square statistic (χ^2) was the appropriate test for this analysis (Field, 2013). Results from this analysis reported χ^2 test score and degree of freedom at 95% confidence intervals ($\rho < .05$). In addition, Cramér's V (φ_c) was calculated as a post-test to determine the strength of relationship for each association since the rows and columns were 3x2 (Barrett, Morgan, Leech, & Gloeckner, 2015).

Research question two: What interaction effects exist among marital status, number of violence and shift on absence due to sickness among mental health workers in Ghana?

This analysis tested the interaction effects of marital status, the frequency of violence and shift at work on absence due to sickness among mental health workers in Ghana. The independent variables (IVs) included the type of marital status, number of violence and shift at work for the past year. These three IVs were measured on more than two categories. In addition, the dependent variable (DV), absence (number of days) from work within the past year due to sickness, was measured as a quantitative variable. Based on the nature and number of IVs and DV, Factorial Analysis of Variance (Factorial ANOVA) was ideal for the analysis. The main effect of each IV was assessed as a One-Way ANOVA analysis where the variances in the IV, as a function of the DVs were established distinctly (Field, 2013).

The following assumptions were met for the test, quantitative dependent variable, normality, homoscedasticity, and no multicollinearity. The Levene's Test was used to address the assumption of homoscedasticity of error variances. In addition, the IVs were observed to be mutually independent of one another to meet the assumption of multicollinearity. The *F*-statistic, and parameters like *M*, *SD*, degree of freedom (*df*), *p*-values and partial eta-squared (η^2_p) were to be reported. Calculating the effect size using η^2_p was done to test the magnitude of the existing effect (Field, 2013).

Research question three: What differences exist among workers of mental health hospitals in safety culture, turnover intentions and QoWL of mental health workers in Ghana?

Research question three examined the differences in Mental Health Hospitals according to their levels of safety culture, turnover intentions and QoWL of mental health workers in Ghana. The IV was the Mental Health Hospitals at three levels (Accra, Ankaful, and Pantang) while the DVs were

safety culture, turnover intentions, and QoWL. Besides, while Mental Health Hospitals was measured as a categorical variable (three levels), safety culture, turnover intentions, and QoWL were measured as quantitative scores aggregated from their various scales. Hence, One-way Multiple Analysis of Variance (One-way MANOVA) became the most appropriate statistical test for this analysis (Field, 2013). Parameters including *M*, SD, η^2_p, *df*, ρ-values, and *F*-statistic were reported. The decision on the significant difference among the groups was based on the significance of ρ-value (<0.05). Also, Post-Hoc analysis using Bonferroni, relatively a conventional test, was done to identify differences among the mental health facilities (Field, 2013).

Research question four: To what extent does safety culture affect the QoWL of mental health workers in Ghana?

Research question four measured the extent to which safety culture affects QoWL among mental health workers in Ghana (Figure 3). In this model, the IV was safety culture while QoWL, as the DV. To test this, I conducted conduct a Path Analysis using the SPSS PROCESS Macro (Hayes, 2013) and explore the path coefficient between the safety culture and QOWL. Also, I used 5,000 bootstrap method at 95% bias-corrected bootstrap confidence intervals were used for all effects with a covariance matrix estimator.

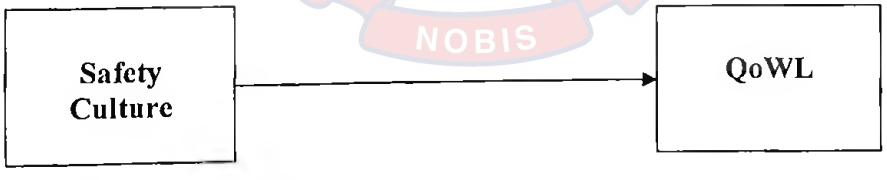

Figure 3: The Effect of Safety Culture on QoWL

I selected Model 8 of SPSS PROCESS Macro (Hayes, 2013), a mediated-moderation model, because it was suitable to integrate the variables research questions four, five and six into a single conceptual framework. Furthermore, I ensured that the variables met the statistical test assumptions of linearity, homoscedasticity, normality of estimation error, and independence of

observations. First, the test for linearity was done by running a series of linear regressions between the study's variables using SPSS [*Analyze* > *Regression* > *Linear*] (IBM Corporation, 2011). According to Hayes, the relationship between *X* (IV) and *Y* (DV) has to be linear to decrease error. Second, I selected heteroscedasticity consistent standard error 3 [HC3 or Davidson-Mackinnon] when running SPSS PROCESS Macro (Hayes) to correct heteroscedasticity error (relatively unequal estimation error across all predicted *Y* values) in Model 8. According to Long and Ervin (2000), HC3 is the best test for correcting heteroscedasticity. I also run a scatterplot with a Loess curve, a non-parametric graphical curve to show associations among the variables (Jacoby, 2000).

Third, I assessed the normality of estimation error using a Q-Q plot with the residuals in SPSS [*Analyze* > *Descriptive Statistics* > *Q-Q Plots*] (IBM Corporation, 2011). Hayes (2013) states that the estimation error indicated in graphical plots should be normally distributed. Thus, when the data do not fit well the plot's diagonal line, normality is said to be violated. Nonetheless, this does not affect the results of my OLS analysis according to Hayes, because I collected data from more than 500 participants. Fourth, the data collection procedure did not compromise the independence of observations given that the participants came from mental health facilities in Ghana with similar organisational cultures and experiences. According to Kane and Ashbaugh (2017), data from participants from similar settings may not encounter fundamental characteristics that will affect the independence of estimation error. According to Hayes, the error related to each data point have to be independent of the error associated with all other cases.

Results from this analysis reported beta (β) and *t* values to indicate the direct effect of safety culture on QoWL. In addition, I reported an unstandardised estimate for the path coefficient. Following these steps, it was

expected that accurate measurement and results with a valid conclusion will be reported.

Research question five: To what extent do turnover intentions mediate the effect of safety culture on QoWL of mental health workers in Ghana?

Research question five examined the mediating effect of turnover intentions on the relations between safety culture and QoWL among mental health workers in Ghana (Figure 4). I conducted Path Analysis using the PROCESS Macro (Hayes, 2013) to assess the effect of the mediator on the effect of the mediating role of turnover intentions (M) on the effect of safety culture on QoWL. Since this analysis was presented as a simple mediation, the regressions relating to the IV, MV and DV were expressed in terms of direct and indirect effects [*X (direct effect)* → *M* (*indirect effect*) → *Y (outcome variable)*] (Kane, & Ashbaugh, 2017).

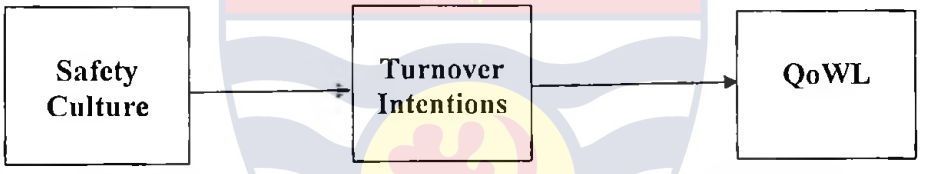

Figure 4: Mediation of Turnover Intention on the Effect of Safety Culture on QoWL

Using a bootstrapping approach, I assessed if the indirect effect is different from zero at 95% confidence level. According to Hayes (2013), an indirect effect that is different from or does not include zero is significant. The analysis using this software also yields unstandardized coefficients. As stated by Kane and Ashbaugh (2017), standardizing the IV and MV in mediation analysis is more likely to produce coefficients without real meanings. Results from this analysis showed beta (β) and t-values to indicate the mediating effect of turnover intentions on the relations between safety culture and QoWL. The Total Effect Model, which showed how much variance turnover intentions explained in the mediation model was reported by the R-squared value (R^2).

Research question six: To what extent do mental health facilities moderate the effects of safety culture on turnover intentions and QoWL of mental health workers in Ghana?

Research question six examined the moderating effects of mental health facilities on the causal relationships of safety culture on turnover intentions and QoWL of mental health workers in Ghana (Figure 5). Path Analysis in the PROCESS Macro (Hayes, 2013) was used to analyse the data. Since this analysis was included in the Model 8 of SPSS PROCESS Macro (Hayes), I computed safety culture as *X*, QoWL as *Y*, turnover intentions as *M*, and mental health facilities as *W* (moderator).

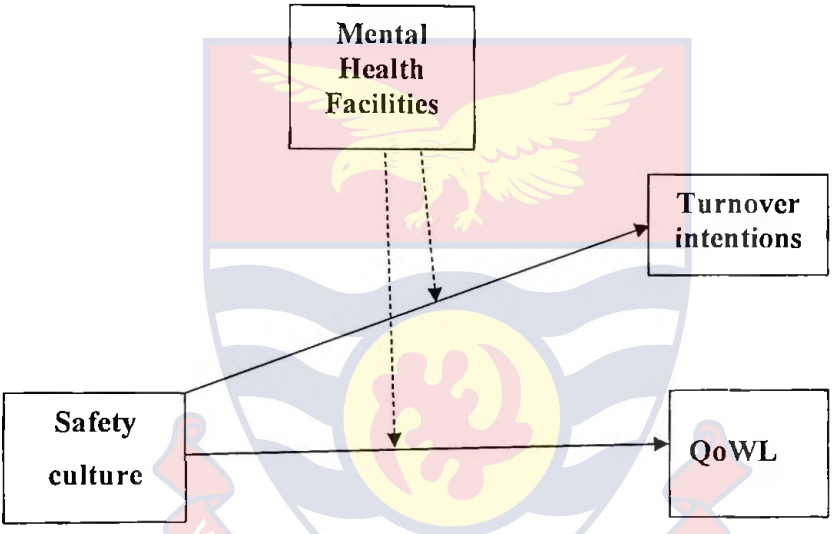

Figure 5: Moderation Effect of Mental Health Facilities on the Effect of Safety Culture on Turnover Intentions and QoWL

In this moderation model, the direct effect of safety culture on turnover intentions qualifies it to be an outcome variable, although entered originally as a mediator. Using a bootstrapping approach, the model tested and reported on two direct effects and two moderating effects (Hayes, 2013). The direct effects included the path coefficients of mental health facilities on turnover intentions and QoWL (Figure 5). Additionally, the moderating effects from the path coefficients were based on the following interactions: (1) mental health facilities and safety culture on turnover intentions, and (2) mental health facilities and

safety culture on QoWL. According to Hayes, an interaction effect that does not include a zero is significant. Furthermore, these analyses were assessed at 95% confidence level and it yielded unstandardized coefficients. The reported parameters included β and t values for all the effects in the model. Also, R^2 value was reported for the Total Effect Model of the two outcome variables; turnover intentions and QoWL.

Research question seven: What are the lived safety culture experiences of mental health workers in Ghana?

Research question seven explored the lived experiences of mental health workers in Ghana about the safety culture at their facilities. The IPA (Creswell, 2013) was used to analyse these lived experiences into themes to report respondents' safety culture story. Since IPA is a complete and comprehensive procedure for qualitative data analysis, both research questions seven and eight were analysed using the same method. According to Pietkiewicz and Smith (2012), "IPA aims at giving evidence of the participants', making sense of phenomena under investigation (…) and, at the same time, it documents the researcher's sensemaking" (p. 11). To commence IPA, manual transcriptions were done for each audio recording. Again, all names mentioned in the interviews were anonymised using pseudonyms to ensure confidentiality.

First, multiple reading and notes making were undertaken. At this stage, each transcript read a number of times while audio recordings are played concurrently. This step enabled me to immerse myself in the data (Birks, Chapman, & Francis, 2008). Following this process, initial summaries and observations were written at the left margins of each transcript. Second, data verification and member checking were done to deal with repetitive and irrelevant responses (Pietkiewicz, & Smith, 2012). These steps were done by contacting participants to verify their own transcripts and to throw more lights

on the meanings derived from the data. For example, a response that, *I think, I think safety at work* (…)" was edited to be *"I think safety at work (...)"*

Third, the researcher transformed notes into Emergent Themes. According to Pietkiewicz and Smith (2012), the emphasis of the researcher using IPA must shift from the transcripts unto the researcher's notes to formulate emergent themes. Twenty-three new themes defining the lived safety culture experiences of mental health workers in Ghana were noted at the right margin of the transcripts until the end of this stage. Fourth, I sought relationships among themes and then followed up to group these themes into categories (Creswell, 2013). In building relationships among themes, themes would be dropped because they may not fit into the emerging construction. In the end, a list of superordinate and subordinate themes with relevant extracts from the transcripts would be reported to complete the final narrative account.

Research question eight: What QoWL experiences are acquired by mental health workers in Ghana as a result of their lived safety culture experiences?

Research question eight explored the nature of QoWL experiences that are formed by mental health workers as a result of their safety culture experiences. Similarly, the IPA would be used to analyse existing QoWL, which are experienced by respondents into themes. Following the IPA steps of Pietkiewicz, and Smith (2012), new themes were noted at the right margin of the transcripts. Likewise, superordinate and subordinate themes with relevant narratives would be captured from the transcripts.

CHAPTER FOUR

RESULTS AND DISCUSSION

The purposes of this study were to: (1) determine the existing safety culture and its effluence on QoWL including violence experienced, among mental health workers, (2) explore the interaction effects of marital status, number of violence and shift on absence due to sickness among the workers, (3) test the path relationships among safety culture, QoWL, turnover intentions, and type of mental health facilities of the workers, and (4) explore the lived safety culture experiences and how they produce QoWL perceptions among mental health workers in Ghana. This chapter presents the results of the study and discussions.

Research Question One: What is the Association between the Type of Psychiatric Hospital and Nature of Violence Experienced by Mental Health Workers in Ghana?

The purpose of the analysis was to explore the relationship between the mental health facilities (Accra, Ankaful and Pantang Hospitals) and the nature of violence experienced by mental health workers (see Table 2 for data). The χ^2 test was used to reveal the associations among eight abusive patients' behaviours (punches or hits, insults, spits of saliva, pouring of urine, verbal curses, attacks using physical objects, unwanted touching or physical contact, and unwanted sexual advances) and the three mental hospitals. Test for frequencies of variables showed cross-tabulated cells that were mutually exclusive (Field, 2013).

The results showed that a significant association exists between abusive punches or hits from patients and being a worker in these health facilities, [$\chi^2(2) = 8.13, \rho = .017, \varphi c = .119$]. Since Cramér's V is between zero and one, a value of 0.119 indicated a small magnitude of association (Field, 2013). Again, a statistically significant relationship exists between insults from patients and

working in these mental health facilities in Ghana, [$\chi^2(2) = 22.22$, $\rho = .000$, $\varphi c = .196$]. Similarly, Cramér's V value of 0.196 indicated a small level of association between the variables. Additionally, spits of saliva from patients significantly associated with having to work in the mental health facilities, [$\chi^2(2) = 11.40$, $\rho = .003$, $\varphi c = .141$], with a small degree of association (Cramer's V = 0.141). Also, a significant association exists between patients' acts of pouring urine on workers and practising of mental health in these facilities, [$\chi^2(2) = 11.12$, $\rho = .004$, $\varphi c = .139$] with a small magnitude of association (0.139).

With a small magnitude (Cramer's V = 0.178), the association between verbal curses from patients and being a mental health worker in these hospitals showed a significant χ^2 value, [$\chi^2(2) = 18.27$, $\rho = .000$, $\varphi c = .178$]. Also, attacks using physical objects by patients has a significantly association with working in these hospitals, [$\chi^2(2) = 9.62$, $\rho = .008$, $\varphi c = .129$], with a small magnitude (0.129). Furthermore, unwanted touching or physical contact significantly relates at a small degree (Cramer's V = 0.117) with the having to work in these health facilities, [$\chi^2(2) = 7.89$, $\rho = .019$, $\varphi c = .117$]. Additionally, unwanted sexual advances from patients had a significantly small association (Cramer's V = 0.155) with working in these mental health facilities in Ghana, [$\chi^2(2) = 13.79$, $\rho = .001$, $\varphi c = .155$].

Apart from the eight previously reported abusive patients' behaviours toward mental health workers, five abusive patients' behaviours were not statistically associated with working in these mental health hospitals (see Table 2 for data). These abuses included bites [$\chi^2(2) = 5.11$, $\rho > .05$], dress torn by patients [$\chi^2(2) = 5.28$, $\rho > .05$], demands for sexual favours [$\chi^2(2) = 2.46$, $\rho > .05$], physical acts of sexual assault [$\chi^2(2) = 5.29$, $\rho > .05$] and, verbal

harassment of a sexual nature in the forms of jokes and comments [$\chi^2(2) = 1.84$, $\rho > .05$].

Table 2: Association between the Type of Psychiatric Hospital and Nature of Violence on Health Workers in Ghana

Variables		Mental Health Facility n (%) = 576 (100%)					
		AcPH	AnPH	PaH	χ^2	*df*	φc
Punches	Yes	84	91	71	8.13*	2	.119
	No	102	96	132			
Insults	Yes	150	171	148	22.22***	2	.196
	No	36	16	55			
Spits of saliva	Yes	91	70	66	11.40**	2	.141
	No	95	117	137			
Pouring of urine	Yes	41	18	30	11.12**	2	.139
	No	145	169	173			
Verbal curses	Yes	103	138	112	18.27***	2	.178
	No	83	49	91			
Attacks using physical objects	Yes	60	45	38	9.62*	2	.129
	No	126	142	165			
Unwanted touching	Yes	48	54	35	7.89*	2	.117
	No	138	133	168			
Unwanted sexual advances	Yes	42	52	26	13.79**	2	.155
	No	144	135	177			
Bites	Yes	59	48	44	5.11	2	.094
	No	127	139	159			
Dress torn by patients	Yes	59	57	45	5.28	2	.096
	No	127	130	158			
Demands for sexual favours	Yes	34	44	36	2.46	2	.065
	No	152	143	167			
Physical acts of sexual assault	Yes	32	27	19	5.29	2	.096
	No	154	160	184			
Verbal harassment of a sexual nature	Yes	44	37	37	1.84	2	.057
	No	142	150	166			

Notes:
****ρ<0.001, **ρ<0.01, *ρ<0.05*
AcPH = Accra Psychiatric Hospital
AnPH = Ankaful Psychiatric Hospital
PaH = Pantang Hospital

Generally, the finding revealed that violence experienced by mental health workers are significantly associated with working at psychiatric hospitals

in Ghana. Although psychiatric hospitals globally are associated with violence from patients (Baby et al., 2014), this level of violence against mental health professionals in Ghanaian mental health hospitals poses risks to the health and safety of the workers in this study (Anderson, & West, 2011). A possible reason for this high risk of violence against the workers could be attributed to the high-risk nature of mental health professions and facilities (Madzhadzhi, Akinsola, Mabunda, & Oni, 2017). In addition, the decreasing level of resources to manage a growing violent patient population is a major factor, even in developed countries (Zaki, 2016). Even in the United States, mental health workers in psychiatric hospitals are noted to have the second-highest estimated annual rate of workplace violence (Bureau of Justice Statistics, 2011).

Furthermore, it is noteworthy that patients' verbal abuses against mental health workers in this study were more common compared to other sources of violence. This finding is also supported by Tonso et al. (2016) who identified that Australian mental health workers reported a high level of verbal abuse than physical violence. As a general trend among health workers of other specialties, Çelik et al. (2007) noted that health workers "did nothing" as a coping reaction towards verbal abuse (p.359). This is serious because their study reported that nurses had decreased job performance, increased rate of headache and mental health problems like depression and feeling of humiliation. Similarly, Boafo et al. (2016b) reported that patients' verbal violence against Ghanaian health workers affected their psychological wellbeing, job satisfaction, and turnover intentions.

Moreover, the finding showed that deliberate exposures of mental health workers to patients' biological fluids like saliva and urine significantly associated with working at the three mental health facilities in Ghana. Although they were not reported with high frequencies like verbal forms of abuse,

exposure to these fluids can increase the risk of staff nosocomial infections and diseases (Komatsu, Inui, & Fujisawa, 2016). For example, Hepatitis B and C viruses and bacteria species of Klebsiella, Proteus, Staphylococcus and Enterococcus can be localised in such body fluids (Coorevits, Heytens, Boelens, & Claeys, 2017; Riedel et al., 2017; Walker, & Shankaran, 2016). Splashes of these biological fluids into the eyes or open skin contacts can increase mental health workers' risk of nosocomial infections (Kim et al., 2017).

Additionally, the finding revealed that unwanted touching and unwanted sexual advances had a significant association with being a mental health worker. These forms of violence were also reported in a study among Chinese mental health nurses in Wuhan (Yang, Stone, Petrini, & Morris, 2018). According to Yang et al., several nurses reported various forms of workplace violence which ranged from verbal, sexual, to physical violence. Their study identified a positive correlation between past experiences of violence and the level of burnout. Although sexual forms of violence are among the lowest occurring forms of violence among mental health workers, its effects are highly devastating (Park, Cho, & Hong, 2015).

Accordingly, Park et al. (2015) indicated that the presence of these forms of violence and their perpetrators negatively affect the level of trust and organisational justice that health workers have in their work environment. Similarly, a related finding was identified in a study on workplace violence among nurses in Hong Kong (Cheung, & Yip, 2017). Cheung and Yip identified that workplace violence was associated with deliberate self-harm and anxiety symptoms. Their finding presented a similar trend of verbal abuse as the highest occurring form of violence among their participants. This was followed by physical assault and then sexual harassment. Interestingly, the majority of

perpetrators of workplace violence against nurses were patients followed by their relatives, work colleagues, and work supervisors.

Globally, workplace violence in mental health facilities is a recognised OHS issue (Hvidhjelm et al., 2016; Zhao et al., 2018). Studies by both Itzhaki et al. (2018) and Yang et al. (2018) identified that almost all their participants had experienced some form of workplace violence as mental workers. A review indicated that 24% to 80% of health workers in acute mental health facilities experienced some forms of physical violence, 46% to 78.6% of them had verbal forms of violence, and 9.5% to 37.2% affected by sexual harassment (d'Ettorre, & Pellicani, 2017). Similar to this global trend, this current study recorded 24.9% of participants being attacked by patients with physical objects while 81.6% of them being verbally abused.

Workplace violence in mental health facilities can put strains on both the worker and the general healthcare system at large due to its high frequency (Boafo, & Hancock, 2017; Jack et al, 2016). According to Iozzino et al. (2015), nearly one of five patients in an acute mental health setting will commit some form of violence. Comparing these incident rates to existing global evidence (Bureau of Justice Statistics, 2011; Cheung, & Yip, 2017; Itzhaki et al., 2015; Yang et al., 2018), mental health facilities in Ghana can be classified as high risk for workplace violence. This calls for new measures and capacity building to decrease its occurrence to promote health and safety (Tonso et al., 2016).

Research Question Two: What Interaction Effects Exist among Marital Status, Number of Violence and Shift on Absence Due to Sickness among Mental Health Workers in Ghana?

The purpose of this analysis was to measure the interaction effects of the marital status, number of violence and shift at work on absence due to sickness among mental health workers. Factorial ANOVA was estimated to determine the interaction effects of the IV (marital status, number of violence and shift) on

the difference in the DV (absence due to sickness). The results showed that shift, marital status and the number of violence at work significantly have an interaction effect on the absence of mental health workers due to sickness, [F (22, 574) = 2.536, ρ = .000, η^2_p = .109]. This provides evidence that all three variables have a small interaction effect (η^2_p = .109) on the degree of absence among mental health workers due to sickness (Cohen, 1988).

Also, shift and marital status significantly resulted in a joint effect on absence due to sickness of mental health workers, [F (13, 574) = 2.608, ρ = .002, η^2_p = .069], with a small amount (0.069) of practical joint effect existed (Field, 2013). Furthermore, shift and number of violence at a small magnitude (.174) had an interaction effect on absence of mental health workers due to sickness, [F (34, 574) = 2.820, ρ = .000, η^2_p = .174]. Additionally, another small statistically significant interaction effect (.088) was observed between marital status and number of violence on absence due to sickness among mental health workers, [F (29, 574) = 1.502, ρ = .047, η^2_p = .088]. As observed from Table 3, both marital status and number of violence at work indicated significant main effects with the exception of shift at work. Thus, being married or not, the number of violence experienced on the job, and the type of shift run together to create a marked difference in the frequency of absence due to sickness among mental health workers.

The finding revealed significant interaction effects among marital status, number of violence and shift on absence due to sickness among mental health workers in Ghana. The current study also reported a sickness absenteeism rate of 42.9% with a mean of 2 ± 4.4 days among participants over the past year. This rate of sickness absenteeism among these participants can be attributed to the types of marital status, the number of violence at work and workers' shift schedules (Friis, Larsen, & Lasgaard, 2018; Lawrence, Rogers, Zajacova, &

Wadsworth, 2019). From the demographic data on participants, less than half (48.8%, $n = 281$) were married.

Table 3: Multivariate Effect of Marital Status, Number of Violence and Shift on Absence Due to Sickness among Mental Health Workers in Ghana

Variable	*Df*	*F*	η^2_p
Interaction Effects			
Shift * Marital Status	13	2.608**	.069
Shift * Number of Violence	34	2.820***	.174
Marital Status * Number of Violence	29	1.502*	.088
Shift * Marital Status * Number of Violence	22	2.536***	.109
Corrected Model	121	2.527***	.402
Univariate Effects			
Shift	4	1.841	.016
Marital Status	4	6.682***	.056
Number of Violence	12	2.630**	.065
Total	574		

Notes:
***p<0.001, **p<0.01, *p<0.05*

Recent evidence shows that marital status affects health outcomes, morbidity and mortality rates (Lawrence et al., 2019).

According to Lawrence et al. (2019), married people with greater relationship quality are likely to live longer and healthier than those who never married, separated, divorced or widowed. Conversely, Lawrence et al. also reported that married people with poorer marital quality (not measured in this present study) suffer equal or worse morbidity and mortality outcomes like single or divorced people. Interestingly, this current study's finding in Table 3 suggested that there were differences among marital status on the level of

sickness absence from work. The marked role of marital status in this interaction effects could be as a result of the possible marital quality of participants (Chen, Waite, & Lauderdale, 2015). Chen et al. reported that individuals with greater marriage quality reported fewer sleep problems like insomnia, compared to those unmarried or having marital distress.

According to Choi, Yorgason and Johnson (2015), being married with a positive marital quality is linked with declines in ageing functional limitations. Essentially, the role of marital status on morbidity and mortality rates are varied. For instance, Bulanda, Brown and Yamashita (2016) associated the health effect of marital status and quality with gender. They reported that men's mortality risks are more associated with marital status while women's mortality risks are associated with marital quality.

Generally, an increase in marital quality promotes better health and leads to a lower risk of mortality (Robles, Slatcher, Trombello, & McGinn, 2014). Also, a study among men showed that negative marital relationships were associated with cardiovascular disease risks (Bennett-Britton et al., 2017), and may worsen the symptoms of individuals with physical conditions like knee osteoarthritis and type 2 diabetes mellitus (Martire et al., 2018). Likewise, correlational evidence exists between marital quality and mental disorders like depression (Goldfarb, & Trudel, 2019). In fact, both marital status and quality of marital relationships have been reported in research as vital for an individual's disease and death risks (Chapman, & Guven, 2016). Similarly, research among the Norwegian population between the years 1992 and 2008 showed that the rate of sickness absenteeism increased during divorce applications and became worsened after the divorce was granted (Dahl, Hansen, & Vignes, 2015).

The role of the number of workplace violence on sickness absence among mental health workers was significant. According to Friis et al. (2018), individuals with exposure to physical workplace violence were about two times more likely to absent themselves from work than the non-exposed ones. Similarly, a study among Swedish working population identified that hospital workers were at a higher risk of sickness absence due to safety culture and QoWL factors like burnout, high psychosocial work demands such as workplace stress, violence and poor control over work (Aronsson, Toivanen, Leineweber, & Nyberg, 2018). These negative factors are also related, forming a cycle to continue the incidence of sickness absence among mental health workers (Pihl-Thingvad, Elklit, Brandt, & Andersen, 2019). Besides, the significant interaction role of workplace violence on sickness absence can be attributed to the relatively poor attention health workers often offer to themselves after such negative incidence (Hills, Lam, & Hills, 2018). Hence, the inadequate medical or psychological post-exposure help-seeking behaviour of health workers can increase the damaging effects of their trauma, prolong their absence and affect their productivity (Hills et al.).

Notably, shift schedules at work have been reported to associate significantly with workplace violence (Karhula et al., 2018). Karhula et al. noted that shift workers and permanent night workers experienced extremely higher levels of verbal and physical violence than normal day workers. Likewise, Iranian nurses' shift significantly determined the amount of workplace violence they experienced (Dehghan-Chaloshtari, & Ghodousi, 2017). Consequently, health workers increasing exposure to workplace violence in Ghana often leads to the development of burnout and turnover intentions among employees (Boafo et al., 2016). Globally, it is evidenced that the cumulative exposure to shift work alone can significantly result in sickness absence, and this may be partly due to

workers' likely exposure to some negative events, violence at particular shifts (Friis et al., 2018; Van Drongelen, Boot, Hlobil, Van Der Beek, & Smid, 2017).

The current study showed that most of the participants do a rotation between morning, afternoon, and night shifts and also run all three-shift schedule. According to Van Drongelen et al. (2017), employees who worked in a three-shift schedule significantly indicated a high risk for long-term sickness absenteeism. For example, a study among registered nurses and health care assistants in England showed that long shifts on hospital wards significantly correlated with increased risk of sickness absence (Dall'Ora et al., 2019). Additionally, Borhani and Karami (2017) indicated that night shift workers often had low sleep quality, increased sleep disorders, and poor morning performance compared to those who work on the day-shift schedule. This can lead to an increase in sickness absenteeism and possible future chronic diseases among mental health workers if shift-schedules are not regulated well (Eriksen et al., 2016; Salin, 2015).

The evidence further shows that shift-work has a negative effect on the quality of marital and family life. A study among women in Iran showed that marital quality and maternal efficacy of women were negatively affected by their night shift schedule (Borhani, & Karami, 2017). This often occurs due to the conflicts and the stress shift jobs bring into family relationships. Among American employees, work-to-family conflict and marital dissatisfaction were noted to increase when the stress due to family-to-work conflict also increases (Minnotte, Minnotte, & Bonstrom, 2015). Similarly, Chinese female nurses reported that one of the factors predicting their poor sexual life satisfaction with their partners was their shift schedule at work (Ji et al., 2017). As the marital quality of mental health workers declines due to poorly planned shift-schedules, staff may experience higher levels of stress and conflicts which can lower their

health and safety outcomes, QoWL, and performance (Barbeni & Karami, 2017; Lu et al., 2017). Evidently, employees' sickness absenteeism plays an important role in determining productivity, health, and safety at work and QoWL (Eriksen et al., 2016).

Research Question Three: What Differences Exist among Workers of Mental Health Hospitals in Safety Culture, Turnover Intentions and QoWL of Mental Health Workers in Ghana?

One-Way MANOVA was estimated to determine whether workers from these mental health hospitals (Accra, Ankaful, and Pantang) differed according to the levels of safety culture, turnover intentions, and QoWL. After data screening (Box and Q-Q plots), test statistics of Kolmogorov-Smirnov and Shapiro-Wilk indicated non-normal data. Moreover, the test of homogeneity of the DVs could not also be established, Box's M (45.93), $\rho = .000 < 0.01$, while Levene's test of equality of error variance was significant for safety culture (9.34, $\rho = .000$) and QoWL (17.76, $\rho = .000$) but not for turnover intentions (2.58, $p = .077$). Therefore, Pillai's Trace statistic was adequate to select and report, [F (6, 574) = 13.638, ρ =.000, Pillai's Trace = .218, η^2_p = .067].

The MANOVA results showed no significant statistical differences, F (2, 574) = 2.444, $\rho = .088$, $\eta^2_p = .008$, among Accra, Ankaful and Pantang Psychiatric Hospitals on levels of safety culture. Besides, the results revealed that categories of mental health hospitals had significant univariate effect on turnover intentions, F (2, 574) = 15.990, $\rho = .000$, $\eta^2_p = .053$, with a Bonferroni Post Hoc test showing that Ankaful Psychiatric Hospital had higher levels of turnover intentions than Accra Psychiatric Hospital, (M = 3.97, SD = .65) > (M = 2.89, SD = .63). Likewise, Ankaful Psychiatric Hospital recorded higher levels of turnover intentions than Pantang Hospital, (M = 3.97, SD = .65) > (M = 2.97, SD = .65).

Furthermore, the MANOVA results showed that categories of mental health hospitals had statistically significant univariate effect on QoWL, F (2, 574) = 5.322, ρ = .005, η^2_p = .018, Bonferroni Post Hoc analysis indicated that Accra Psychiatric Hospital recorded higher levels of QoWL (M = 11.03, SD = .2.30) than Ankaful Psychiatric Hospital (M = 10.23, SD = 2.15) but not than Pantang Hospital, (M = 10.49, SD = 2.93). However, there was no statistically significant difference between Ankaful and Pantang Psychiatric Hospitals regarding levels of QoWL. According to the analysis, mental health hospitals in Ghana differed on the levels of turnover intentions and QoWL, but not on levels of safety culture (see Table 4 for analysis).

Finding revealed that no significant differences were seen among Accra, Ankaful, and Pantang Psychiatric Hospitals on workers' safety culture perceptions.

Table 4: One-Way MANOVA Results Showing the Differences among Workers of Psychiatric Hospitals on Safety Culture, Turnover Intentions, and QoWL

Mental Health Hospitals	M	SD	Dependent Variables	*Df*	*F*	η^2_p
AcPH	71.62	20.01	Safety Culture	2, 574	2.444	.008
AnPh	68.71	14.47				
PaH	72.36	16.38				
AcPH	2.89	.63	Turnover Intentions	2, 574	15.990***	.053
AnPh	3.26	.71				
PaH	2.97	.65				
AcPH	11.03	2.30	QoWL	2, 574	5.322**	.018
AnPh	10.23	2.15				
PaH	10.49	2.93				

Notes:
****ρ<0.001, **ρ<0.01, AcPH = Accra Psychiatric Hospital, AnPH = Ankaful Psychiatric Hospital, PaH = Pantang Hospital*

This finding could be as a result of poor safety issues like workplace violence that occur at all three hospitals (Jack et al., 2015). Generally, poor safety culture issues in the three mental health hospitals have been broadcasted by the media over the years. Media evidence displays chains of demonstrations and strikes by mental health workers in Ghana over safety problems that may partly be due to the inadequate supply of resources and violence at work (GhanaWeb, 2016a, 2016b). It is clear from the current finding that no psychiatric hospital in Ghana is possibly better than the other regarding their existing organisational safety culture. This is probably so because workers and patients of these three hospitals had been neglected by the government according to a statement made by Dr. Akwasi Osei [the Chief Executive of the Mental Health Authority] (Power FM, 2018).

Moreover, the absence of significant differences in safety culture among these three tertiary mental hospitals raises an important concern (GhanaWeb, 2016a, 2016b). Noteworthy is the fact that these hospitals serve as the highest level of mental healthcare referrals in Ghana (Mental Health Authority, 2018a). Thus, a gross decline of safety culture among all of them will negatively affect the safety and health outcomes of staff, patients and resources (Jack et al., 2015). Thus, increasing employees' vulnerability to violence at work, illnesses and burnout (Burke et al., 2010; Pai, Lautert, Souza, Marziale, & Tavares, 2015). At worse, the impact of poor safety culture on staff could create both permanent damages on them and their clients (Cottney, & Innes, 2015; Karhula et al., 2018).

In contrast, the finding revealed that mental health facilities differed on their turnover intentions with workers at Ankaful Psychiatric Hospital recording higher levels than those at Accra and Pantang Psychiatric Hospitals. The high nature of turnover intentions recorded among workers at Ankaful Psychiatric

Hospital as compared to the other two hospitals is likely to be due to poor management support over the years since October 2017 (3news.com, 2018a). According to 3news.com, mental health workers at Ankaful Psychiatric Hospital described their Hospital Director (Dr. Eugene Dordoye) as "oppressive", "degrading" and "abusive". Such negative managerial behaviours could lead to higher job stress accounting for employees' turnover intentions (Wang, & Yen, 2015; Zahra, Khan, Imran, Aman, & Ali, 2018). Additionally, such ineffective leadership styles where workers feel intimidated have been reported to decline their commitment and job satisfaction to increase their turnover intentions instead (Castel et al., 2015; de Oliveira et al., 2017).

Apart from the poor managerial support and ineffective leadership, a possible reason for the high turnover intentions in Ankaful Psychiatric Hospital compared to the other two hospitals may be attributed partly due to existing environmental hazards. According to the account by 3news.com (2018b), the hospital had not seen any major renovation of the facility after its establishment. Due to the compromised nature of some of the structures, workers were not generally unhappy. Consequently, these factors can decrease the future trust, job satisfaction, and retention of mental health workers at Ankaful Psychiatric Hospital (Zeffane, & Melhem, 2018). Noteworthy is the fact that a high turnover of mental health workers will greatly affect the quality of patient care since Ghana already has a poor patient-staff ratio (Mental Health Authority, 2018a; WHO, 2015; Yanchus, Periard, & Osatuke, 2017).

The finding again indicated that mental health workers in Accra Psychiatric Hospital reported higher levels of QoWL compared with those at Ankaful Psychiatric Hospital. Nonetheless, there were no differences between Accra and Pantang Psychiatric Hospitals on QoWL scores. Similarly, there was no significant difference between Ankaful and Pantang Hospitals on QoWL

scores. This marginal statistical difference might have occurred due to some infrastructural changes that have occurred at the Accra Psychiatric Hospital in recent times. These included the renovation of the Female Infirmary Ward by the then Minister for Local Government and Rural Development, Hajia Alima Mahama (B&FT Online, 2017). In addition, the hospital was funded by the UK Department for International Development through the Mental Health Authority of Ghana to build a Serenity Facility for addiction management (Daily Guide Network, 2019). As noted by Khamis and Njau (2016), health workers can be affected negatively, if they work in hospitals with poor physical infrastructure.

On the whole, the absence of a significant difference between Accra and Pantang Psychiatric Hospitals is not surprising. A study among frontline staff in these two hospitals indicated that although many workers were exposed to occupational health hazards, few cases were reported and documented in hospital records (Alhassan, & Poku, 2018). According to Alhassan and Poku, psychosocial hazards were reported least by workers in both settings. Regarding these safety problems, the culture of poor reporting and inadequate level of attention rendered to OHS indicated by Alhassan and Poku, it more likely that both hospitals have similar QoWL levels (Jack et al., 2015). Furthermore, these negative factors are likely to affect their QoWL as they lead to compassion fatigue and burnout (Cetrano et al., 2017). These negative factors when experienced by health workers can lead to worker turnover and poor patient care quality (Cottney, & Innes, 2015; Lu et al., 2017; Pai et al., 2015).

Research Question Four: To What Extent does Safety Culture affect the QoWL of Mental Health Workers in Ghana?

The purpose of the analysis was to measure the extent to which safety culture affects QoWL of mental health workers in Ghana. Having met the statistical test assumptions of linearity, homoscedasticity, normality of

estimation error, and independence of observations. Path Analysis using the SPSS PROCESS Macro (Hayes, 2013) was used to explore the path coefficient between safety culture and QoWL of mental health workers. Based on Model 8 with 5,000 bootstrap samples, safety culture had a significant direct positive effect on QoWL of mental health workers with a bias-corrected bootstrap CI for the effect ($b = 3.462$, $t = 9.28$, $p = .000$), which was entirely above zero [2.7288, 4.1947].

Table 5: Direct Effect of Safety Culture on QoWL Mental Health Workers

Model Pathway	*b*-values	*t*-values	95% CI	
			LL	UL
Direct Effect				
$X \rightarrow Y$	3.462	9.2765 ***	2.7288	4.1947

Notes:
****p<0.001 (significant as the confidence interval did not include zero)*
X = Safety Culture, Y = QoWL
LL = Lower limit, UL = Upper limit.

From the finding, mental health workers in Ghana who scored high on safety culture also scored high on QoWL. This finding has been confirmed by both local and international OHS studies (Boafo, 2016a; Gyensare, Anku-Tsede, & Kumedzro, 2017; Jack et al., 2015; Koreki et al., 2015; Schwartz et al., 2018). This finding among Ghana's mental health workers raises many concerns as a worker's perceived QoWL plays an important role in their patient care (Tawfik et al., 2018). Unfortunately, evidence suggests that the level of safety culture is low among health workers in Ghana (Boafo, 2016a; Lori et al., 2016).

Inferring from 'typology of organizational safety culture' by Westrum (1991), generative safety culture level is likely to have a positive influence on employees' QoWL (Harris, Staheli, LeClere, Andersone, & McCormick, 2015).

Considering the current finding, enhancement of safety culture can optimise the level of health workers' perceived QoWL (Boamah, Laschinger, Wong, & Clarke, 2018; Schwartz et al., 2018). Furthermore, safety culture component like safety climate perception is optimal in enhancing job satisfaction in the maritime industry (Bergheim, Nielsen, Mearns, & Eid, 2015) and among social workers (Geisler, Berthelsen, & Muhonen, 2019). Similarly, Alves and Guirardello (2016) identified that safety climate has a positive association with job satisfaction among Brazilian nurses.

Interestingly, a mutual positive association exists between safety culture and QoWL. This relationship is vital in promoting workers' satisfaction, productivity, and retention. For example, job satisfaction mediated partially the effect of safety climate on organisational trust (Avram, Ionescu, & Mincu, 2015). Likewise, job satisfaction partially mediated the negative effect of work-to-family conflict on safety participation among Chinese high-speed railway drivers (Wei, Guo, Ye, Liao, & Yang, 2016).

Although safety culture has an overall positive effect on QoWL, it has a negative influence on harmful QoWL dimensions like workplace stress and work-family conflicts (Armstrong, Atkin-Plunk, & Wells, 2015; Leung, Liang, & Olomolaiye, 2015). A study among container terminal workers in Taiwan indicated that participants with high workplace stress poorly complied with safety rules at work (Lu, & Kuo, 2016). Among workers in the Korean shipbuilding industry, direct workers in accident-prone divisions reported higher workplace stress compared to colleagues less vulnerable departments (Kim, Park, Lim, & Cho, 2017). Moreover, the evidence further revealed that a lower perception of safety among health workers was significantly related to higher workplace stress (Havermans et al., 2017). According to Leung et al.

support from supervisors and the reduction of job stress among workers can promote their safety behaviour.

It is not surprising that good safety culture and positive QoWL among health workers can reduce negative patient safety incidence like medication-administration errors (Miladinia et al., 2016; Tawfik et al., 2018). In a narrative review, clinical workload and workplace environment were noted to increase nurses' medication-administration error (Parry et al., 2015). Additionally, Guchait, Paşamehmetoğlu and Madera (2016) noted that good error management enhanced group cohesion. Consequently, Guchait et al. indicated that an enhanced group cohesion among health workers decreased their stress at work, which in turn decreased their levels of turnover intentions. Thus, promoting the organisational safety culture and QoWL have a higher tendency of increasing job satisfaction of mental health workers and their patient care outcomes (Jack et al., 2015).

The direct positive effect of safety culture on QoWL as an indicator of positive work-life is due to the creation of a sense of just culture at work. According to Marx (2019), a good safety culture at work increases a positive sense of just culture environment where fairness is open to employees. Accordingly, a just culture enables supportive work networks for health workers that promote their health and safety (Browne, & Haysom, 2019). Just culture addresses safety and QoWL issues by empowering health workers and transparently addressing quality patient care issues. For example, The American Association of Nurse Attorneys (TAANA) responded to a bill by a South Carolina senator to withdraw the license of nurses following medication-administration error (Halpern, McKinnon, Okolo, Sanzio, & Dolan, 2016). Against this proposed law, Halpern et al. indicated that TAANA defended that

it is unconstitutional and contradicts the Just Culture Model because of the punitive ways it addresses unintentional medical errors.

Thus, promoting safety culture among mental health workers in Ghana is more likely to provide buffering effects like just culture environment which will, in turn, promote patient care (Marx (2019). As evident, workers are more confident to communicate and manage errors openly when they work in a just culture environment (Castel et al., 2015). In addition, good safety culture practises within the national mental health system will empower health workers to address issues pertaining to professional development and patient care. Thus, this will also aid the development of the overall healthcare system in Ghana as health workers will feel safer and confident to work (Boafo, 2016b; Boamah et al., 2018).

Research Question Five: To What Extent do Turnover Intentions Mediate the Effect of Safety Culture on QoWL of Mental Health Workers in Ghana?

Model 8 of SPSS PROCESS Macro (Hayes, 2013) was used to explore the mediating effect of turnover intentions on the relations between safety culture and QoWL among mental health workers in Ghana. Safety culture (*X*) had a direct positive effect on QoWL (*Y*) of mental health workers, ($b = 3.462$, $t = 9.28$, $p = .000$), with lower and upper limits above zero [2.7288, 4.1947]. Furthermore, safety culture (*X*) had a direct negative effect on turnover intentions (*M*) of mental health workers, ($b = -2.648$, $t = 4.57$, $p = .000$), which also excluded zero [-3.7861, -1.5099].

Subsequently, turnover intentions (*M*) had significant partial indirect negative effect on turnover intentions (*M*) of mental health workers, with a bias-corrected bootstrap CI for the effect ($b = -.057$, $t = -2.70$, $p = .007$), which excluded zero [-.0979, -.0154]. Thus, turnover intentions partially mediated the effect of safety culture on QoWL of mental health workers in Ghana.

The finding suggests that turnover intentions partially mediated the influence of safety culture on QoWL among mental health workers in Ghana. Furthermore, the direct negative effect of turnover intentions on QoWL decreases as it partially mediates the effect of safety culture on mental health workers' QoWL.

Table 6: Mediation Effect of Turnover Intentions on the Relations between Safety Culture and QoWL

Model Pathway	*b*-values	*t*-values	95% CI	
			LL	UL
Direct Effects				
$X \rightarrow Y$	3.462	9.2765 ***	2.7288	2.7288
$X \rightarrow M$	-2.648	-4.5699***	-3.7861	-1.5099
$M \rightarrow Y$	-.393	-3.1829**	-.6354	-.1505
Indirect Effect				
$X \rightarrow M \rightarrow Y$	-.057	-2.6990**	-.0979	-.0154

Notes:
****p<0.001, **p<0.01 (significant as the confidence interval excludes zero)*
X = Safety Culture, Y = QoWL, M = Turnover Intentions
LL = Lower limit, UL = Upper limit.

Thus, the present finding indicates that safety culture and turnover intentions are important factors to consider when promoting QoWL among workers (Kirk-Brown, & Van Dijk, 2016). Additionally, poor organisational safety culture was reported to increase health workers' turnover intentions (Amponsah-Tawiah, Ntow, & Mensah, 2016). As supported by Choi and Lee (2017), workplace violence against nurses in Korea was positively associated with turnover intentions. Similar findings were indicated by health workers in Taiwan (Chang, Lee, & Wang, 2018), China (Chen, Lin, Ruan, Li, & Wu, 2016), Ghana (Boafo, & Hancock, 2017), and Turkey (Aytac, Dursun, & Akalp, 2016).

In line with Boafo, and Chastick (2015), turnover intentions of health workers in Ghana can be promoted by enhancing their safety culture. According to Guchait et al. (2016), the level of turnover intentions reduces when workers' safety practises like error management culture increases. Furthermore, collegial nurse-physician relationships that occur in a good safety culture environment were identified as a predictor of nurses' turnover intention in Turkey (Yurumezoglu, & Kocaman, 2016). Consequently, higher turnover intentions can be indicative of a poor QoWL among health workers (Ahmed, & Waqas, 2017).

In the past, scholars like Baba and Jamal (1991) defined turnover intentions as a dimension of QoWL while recent QoWL scholars see both as different (Easton, & Van Laar, 2018). Notwithstanding this, turnover intentions correlate significantly with overall QoWL of workers and its dimensions like job satisfaction, wellbeing, stress at work and work-family conflicts (Lee et al., 2017; Lu, Lu, Gursoy, & Neale, 2016). For example, a positive relationship existed among turnover intention and job burnout among Filipino nurses (Labrague et al., 2017), while the effect of work-life conflicts on turnover intentions was mediated by burnout (Boamah, & Laschinger, 2016).

In a meta-analysis by Nei, Snyder and Litwiller (2015), nurses' turnover intentions are caused by a combination of safety culture and QoWL factors like work stress, role conflicts, work-family conflict, control at work, work complexity, teamwork and rewards. It is not surprising to note that significant relationships exist between turnover intentions and these other variables in the study's finding (see Appendix I for data). Moreover, QoWL components like job satisfaction directly predicted intention and plan to leave (Yanchus et al., 2017), while wellbeing and burnout of mental health workers related to their intention to leave (Johnson et al., 2018). This partial mediating role of turnover

intentions on QoWL has an implication on Ghana's healthcare as the nation works to achieve optimal mental health (Mental Health Authority, 2018a).

Notably, the relationship between turnover intention and QoWL can have a detrimental effect on patient care. A study in Italy showed that patients were more satisfied when health workers were also satisfied. However, poor patient satisfaction was reported when nurses indicated high turnover intentions (De Simone, Planta, & Cicotto, 2018). As highlighted by Boamah et al. (2018), an increase in job satisfaction was associated with a decrease in negative patient outcomes. Thus, inadequate staffing of health workers due to turnover can lead to negative outcomes like high morbidity and mortality rates among patients (Aiken et al., 2015). Thus, mental health patients can be extremely affected negatively considering the smaller number of mental health workers in Ghana (Mental Health Authority, 2018a; WHO, 2015).

Research Question Six: To What Extent do Mental Health Facilities Moderate the Effects of Safety Culture on Turnover Intentions and QoWL of Mental Health Workers in Ghana?

The purpose of this analysis was to examine the moderating effects of mental health facilities on the causal relationships of safety culture on turnover intentions and QoWL of mental health workers in Ghana, using Model 8 of SPSS PROCESS Macro (Hayes, 2013). The model (using 5,000 bootstrap samples) explained 15.04% of the variance in the model, ($F_{(3, 572)} = 70.48$, p = .000), where mental health facilities (*W*) had significant direct positive effect on turnover intentions (*M*) of the workers, with a bias-corrected bootstrap CI for the effect ($b = 1.95$, $t = 3.60$, p = .000), which excluded zero [3.0116, .8870]. Additionally, there was a significant positive interaction effect between safety culture and mental health facilities on turnover intentions [*M*], ($b = 1.95$, t = 3.60, p = .000), which did not include zero [.6037, 1.6146]. Therefore, the direct

effect of safety culture on turnover intentions increases as the workers continue to work at these mental health facilities.

Similarly, the moderation effect of mental health facilities on the direct effect of safety culture on QoWL yielded 57.18% of the variance in the model, ($F_{(4, 571)} = 70.48$, $\rho = .000$). In the model, mental health facilities (W) had significant direct negative effect on QoWL (Y) of mental health workers, with a bias-corrected bootstrap CI for the effect ($b = -.8908$, $t = -2.90$, $\rho = -.003$), which excluded zero [-.2892, -1.4924]. Furthermore, a significant negative interaction effect between safety culture and mental health facilities affected QoWL [Y], ($b = -.506$, $t = -3.06$, $\rho = .002$), and did not include zero [-.8308, -.1819]. Thus, working in mental health facilities statistical significantly moderated the effect of safety culture on QoWL.

Table 7: Moderation Effect of Mental Health Facilities on the Direct Effects of Safety Culture on Turnover Intentions and QoWL

Model Pathway	*b*-values	*t*-values	95% CI	
			LL	UL
Direct Effects				
$W \rightarrow M$	1.949	3.6041***	3.0116	.8870
$W \rightarrow Y$	-.891	-2.9083**	-.2892	-1.4924
Interaction Effects				
$X \times W \rightarrow M$	1.109	4.3100***	.6037	1.6146
$X \times M \rightarrow Y$	-.5063	-3.0649**	-.8308	-.1819

Notes:
****ρ<0.001, **ρ<0.01 (significant as the confidence interval excludes zero)*
X = Safety Culture, Y = QoWL, M = Turnover Intentions, W = Mental Health Facilities
LL = Lower limit, UL = Upper limit.

The finding here indicates that working in mental health facilities moderate the effects of safety culture on turnover intentions and QoWL among

mental health workers in Ghana. Specifically, working in mental health facilities have a significant positive effect on turnover and a negative effect on safety culture. Furthermore, safety culture and working in mental health facilities have a significant positive interaction effect on turnover intentions but a negative interaction effect on QoWL. These significant direct and interaction effects working in mental health facilities share with safety culture, turnover intentions and QoWL could be as a result of the physical and psychosocial work-environment hazards at these facilities (Bayramzadeh, Portillo, & Carmel-Gilfilen, 2018; Jack et al., 2015).

Working in mental health facilities in Ghana poses both physical and psychosocial risks to health workers (Gyensare et al., 2017; Jack et al., 2015). Although psychiatric hospitals in the United States had accident-prone rooms, bathrooms, and dayrooms (Bayramzadeh et al., 2018) and negative psychosocial work environment hazards like patient violence (Stevenson et al., 2015), Ghana's case is worse due to its economic challenges and gross neglect by funding agencies since their establishments (3news.com, 2018b; Power FM, 2018). Consequently, the bad state of infrastructure coupled with inadequate resources, poor staffing, work overload, and workplace violence experienced by staff can have serious negative impacts on their health and safety (Havermans et al., 2017; Zhang et al., 2014).

According to Zhang et al. (2014), a good work-environment reduced significantly the levels of health workers' job dissatisfaction and burnout. As noted by Gharakhani and Zaferanchi (2019), burnout mediated the effect of work overload on turnover intention among health workers in Uruguay and Spain. In effect, improving the working conditions at the mental health facilities in Ghana can reduce staff attrition which seems to be increasing (Mental Health Authority, 2018a). Also, this will further stimulate the development of both

mental health workers in Ghana. Specifically, working in mental health facilities have a significant positive effect on turnover and a negative effect on safety culture. Furthermore, safety culture and working in mental health facilities have a significant positive interaction effect on turnover intentions but a negative interaction effect on QoWL. These significant direct and interaction effects working in mental health facilities share with safety culture, turnover intentions and QoWL could be as a result of the physical and psychosocial work-environment hazards at these facilities (Bayramzadeh, Portillo, & Carmel-Gilfilen, 2018; Jack et al., 2015).

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generative safety and just cultures within mental healthcare to the benefit of management, workers, and patients (Goncalves Filho, & Waterson, 2018).

Furthermore, a careful analysis of the moderating role of mental health facilities can also impair the health and safety outcomes of patients in Ghana (Jack et al., 2015). As evidenced in a media report on Ankaful Psychiatric Hospital, infrastructural challenges and the lack of major renovation at the facility after its construction has led to an increasing trend of in-patient abscondment. The number of absconded in-patients increased from 26 (2016) to 39 (2017) respectively (3news.com, 2018b). Clearly, such a trend can lead to poor patient recovery and relapse rates, or even resort to 'prayer camps' if not intervened early and appropriately (Arias et al., 2016).

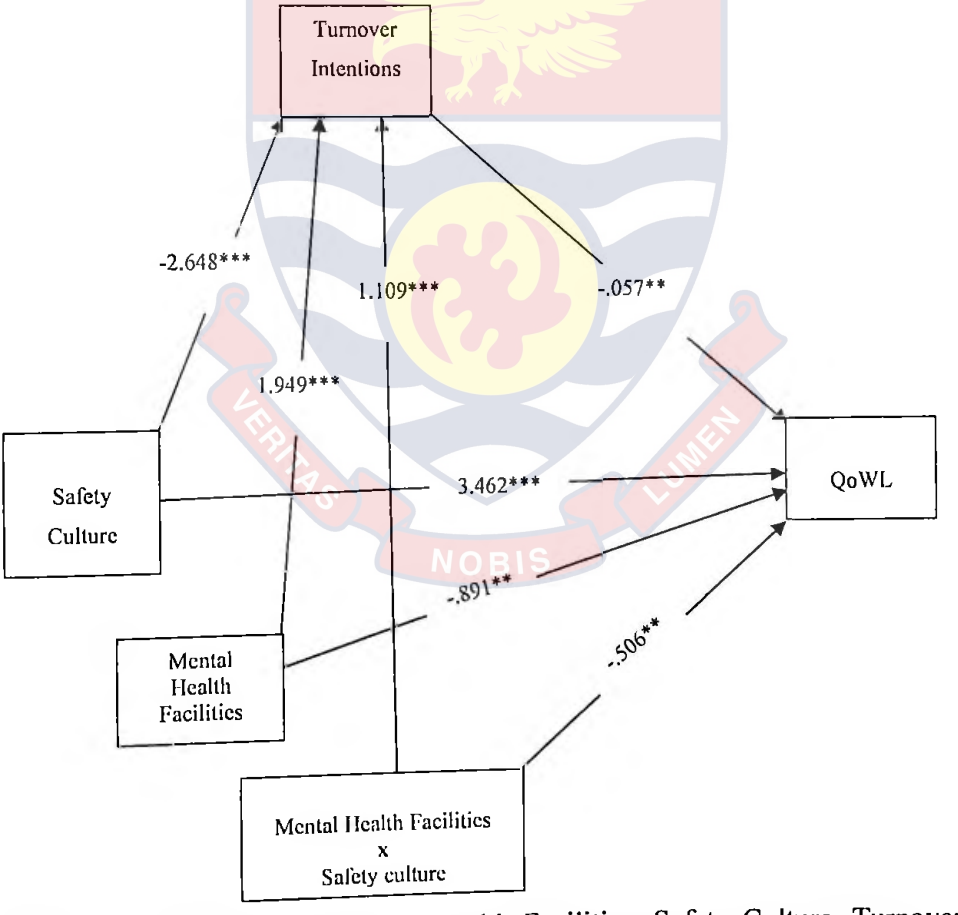

Figure 6: Path Model of Mental Health Facilities, Safety Culture, Turnover Intentions, and QoWL

Notes: ***$\rho<0.001$, **$\rho<0.01$

Research Question Seven: What are the Lived Safety Culture Experiences of Mental Health Workers in Ghana?

The purpose of this analysis was to explore the lived safety culture experiences of mental health workers in Ghana. The IPA (Creswell, 2013) produced six superordinate and four subordinate themes along which participants' lived safety culture experiences could be understood. These themes included the commitment to safety (insufficiency of resources, inadequate motivation for good safety practices), perceived risk levels (risk for workplace violence and injuries, risk of environmental hazards), accident causation, emergency procedures, safety communication, and safety training.

Theme One: Commitment to Safety

Commitment to safety seems to have a major impact on participants' lived safety experiences. Participants described both management and employees' commitment to safety as inadequate and weak, looking at the high-risk nature of their daily duties as mental health workers. Thus, this superordinate theme yielded two subordinate themes; insufficiency of resources, and inadequate motivation for good safety practices. It is noteworthy that these subordinate themes are not mutually exclusive as they both interrelate to affect organisational commitment to safety.

Insufficiency of resources

From the narratives, it was clear that management and employees' commitment to safety was affected by insufficient resources at the mental health facilities. For instance, the extracts showed that mental health workers had an inadequate supply of medications for patients, syringes, needles and personal protective equipment like gloves for effective work and protection.

For example:

"... my problem is that logistics are not enough when you come to work. We don't even have common gloves, disinfectants like methylated spirit and medication at our disposal" (Male, 33, 9 years' experience).

In addition, some participants attributed the poor supply of resources to the lack of commitment by the management at both hospital and MoH levels. From the extract below, the participant felt that management was not interested and committed to safety as they should because they prioritised 'patient's safety' over 'personnel's safety.'

"Management's concern towards safety isn't as expected. I feel the management boards of mental health facilities are not proactive when it comes to resource supply. Looking at national institutions in charge of mental health and our own management, they seem to be more concerned with patient safety alone, while they care little about the safety of we the employees who take care of patients" (Female, 34, 10 years' experience).

Furthermore, some of the participants reported their decision to stop work as a mental health worker due to poor supply of resources and its resultant outcome on patient care quality. The following narrative from a participant expressed how he felt tired seeing patients relapse to later develop chronic conditions due to the absence of medication.

"I diverted from mental health nursing because of poor patient outcomes. How will you feel seeing a person you've nursed with a simple disorder today, becoming complicated and chronic tomorrow? Aside from patients who are non-compliant to management, many others can't simply afford their drugs because they are not part of the listed on the National Health Insurance Scheme. Some of the worst cases you can find are when patients and their families struggle to get money to pay but there aren't any available at the

pharmacy. I felt I was just wasting my time. I left to read criminology" (Male, 32, 9 years' experiences).

Inadequate motivation for good safety practices

Almost all the interviewees raised concerns about the inadequate supply of resources at work, a situation that negatively influenced their motivation to commit to good safety practices. One participant lamented:

"*...some are committed while others are not. I think it's 50/50. And this is somehow due to the fact that the government's support has been too poor. Can you imagine two years ago, we didn't have supplies like common pen and paper, not to talk of medications? With the high-risk nature of our job and such little resources, you just do what you can and not the standards*" (Female, 34, 7 years' experience).

Theme Two: Risk Levels

All participants feared that they are at a high-risk level when it comes to safety. This is partly due to their lived experiences of violence from patients and other work environment hazards.

Risk for workplace violence and injuries

Mental health workers experienced patients' violence on a regular basis. These negative events have made them associate their perceived risk levels as high. The narrative from a participant exemplifies this safety culture experiences of mental health workers in Ghana.

"*....it is not easy. We are exposed to a lot of occupational health problems. I have been beaten before, but as for insult, it is normal. In fact, it is only the grace of God which has been keeping us safe at work*" (Female, 34, 9 years' experience).

The workers also reported injuring experiences from patients which can both be psychosocially and physically harmful. From the narrative, the

perceived standardisation of patients' abusive behaviours at work is a serious perception. The phrase, "*it is normal*" will affect the OHS response mental health workers will implement in the hospital. An extract from a participant showed that some mental health workers have the likelihood to suffer injuries and infirmities out of such abuses. A participant narrated:

"*...personally, I have been physically attacked by a patient and finally, he tore the uniform I was wearing. It is not an easy experience to see some of the violence staff go through. I remember a patient squeezed a female nurse's breast while at work. Within all these events, we struggle with drugs to give to patients to make them better*" (Male, 32, 7 years' experiences).

Again, it is clear from this extract that participants identified their perceived risk of violence with the poor commitment to safety at work. Essential resources like medications seem to have a major role to play in decreasing the level of violence at work.

Risk of environmental hazards

In addition to the risk of workplace violence, infrastructural problems in mental health facilities seem to increase the perceived risk levels of mental health workers. From the interviews, most mental health workers perceived their environment as a safety risk. From the narratives, perception of risk factors can affect the psychological wellbeing of mental health workers. A narrative from a participant described the situation as:

"*...my worry is about our environment. It is not safe for mental health care. Even the OPD isn't safe. People can come in and injure you during work. My problem is that there are no competent security officers at the post to handle extreme patient's aggression toward staff*" (Female, 34, 9 years).

The narratives showed that work-related accidents were caused by arrays of events. Most of the participants attributed many of the accidents at work to workplace violence. An example is as follows:

"I even know a friend that a patient caught and threw at the wall during working hours and even had a fracture at the shoulder" (Male, 32, 7 years' experiences).

In addition, the majority of participants attributed a small number of accidents to be caused by staff errors, though they try their best to avoid such occurrences because of the difficulties in accessing compensation following such events. This is exemplified in this narrative:

"we are all careful at work because you won't get any compensation if you're injured. We all do the best we can to avoid any trouble but you can mistakenly commit an error which can lead to an accident" (Female, 34, 6 years' experiences).

Theme Four: Emergency Procedures

This theme looks at the emergency actions and plans set in place for mental health workers to effectively respond in emergency situations. From the narratives, there were no adequate formal plans that outline what mental health workers and others in their facilities should do in emergencies. An extract from a participant stated:

"...we work in an environment where there can be attacks of all forms but there are no adequate emergency procedures provided by management. We complain about our situation but little is done..." (Female, 34, 7 years' experiences).

Furthermore, participants expressed that the absence of adequate formal procedures during emergencies has not been adequately documented possibly

because the management of mental health organisations in Ghana is not fully committed to OHS.

"We have inadequate management support or compensation at the time of any injury or attack from patients. All they do is to give you some days off. You're not referred for any psychosocial management even after trauma. There is nothing like a standard staff support program to support us even in such crises" (Male, 33, 9 years' experiences).

Theme Five: Safety Communication

Safety communication is an effective tool to promote good OHS at the workplace. Most of the participants interviewed affirmed that there was insufficient safety communication in mental health facilities in Ghana. There exist insufficient area guidelines, posters on safety, progress reports and warnings regarding safety. The following narrative clearly showed that there was a limitation regarding the flow of information concerning safety at work at mental health facilities.

"...all we have is an incidence book to report on any safety or occupational health problem but there is no proper safety communication in our facility. Memos are not circulated to alert us when there is a safety problem. You will hear from a colleague that something bad occurred in another ward or there was an attack on a nurse but there are no formal communications" (Female, 34, 7 years' experiences).

Theme Six: Safety Training

Workplace safety training is needed to promote OHS at mental health facilities. However, participants indicated that there are few categories of such training for mental health workers in Ghana.

"safety training? There is no training since I have been working. I only remember one on infection prevention and control during the Ebola outbreak in the neighbouring countries" (Female, 34, 7 years' experiences).

It is important to note that staff's inadequate knowledge and skills on how to deal effectively with workplace safety incidence, risk assessment and reporting skills caused them to depend on the little they were taught in school. A participant reiterated:

"we only depend on what we learnt from school, we are not given any new safety training. Previously, we use to have so much zeal but for now, we don't stress ourselves with our skills to get hurt because no one will support you" (Female, 34, 10 years' experiences).

The finding suggests six major safety culture themes as experienced by mental health workers in Ghana. First, management and employees' commitment to safety was described as inadequate and weak, considering the nature of OHS hazards they faced. Participants associated their high safety risk experiences and inadequate commitment with a poor level of motivation for good safety practices and inadequate resource supply. This finding is confirmed by Kim and Hopkins (2015), who reported that child welfare workers' exposure to hazardous work environments increased as organizational safety commitment decreased. In a study among miners in Ghana, Amponsah-Tawiah and Mensah (2016) reported a significant positive association between OHS management and safety commitment among personnel. Consequently, this lived experience may harm their future decisions to promote generative safety culture.

Second, the risk experienced by the workers could be described as high. They identified their perceived risk in relations to their experiences of workplace violence and physical work-environmental hazards, which occur on a regular basis. This regular exposure made them consider it as "normal" or

"part of the job", though outcomes of patient violence can be psychosocially and physically harmful to staff. For instance, Stevenson et al. (2015) found among Canadian psychiatric nurses that they suffered verbal, physical and emotional workplace violence to the extent that they perceived it as "part of the job." Again, this perception coupled with working in an unsafe physical environment and inadequate organizational safety commitment will affect the quality of patient care and health and safety of workers (Boafo, & Hancock, 2017; Gul et al., 2017).

Third, some participants reported accidents as a result of personnel and environmental factors like negligence, poor resource supply, and hazardous physical environment. A qualitative study among Saudi physicians regarding prescription errors indicated themes like the physician, work environment, and patient features as perceived causes of prescribing errors (Al-Fageh et al., 2018). Likewise, a study in an English hospital reported similar perceived factors to be the causes of errors (Puaar, & Franklin, 2018). Accordingly, nature and role played by these factors in causing accidents in mental health facilities should be factored into safety training programmes to promote OHS (Farnan et al., 2016; Vladutiu, Casteel, Nocera, Harrison, & Peek-Asa, 2016).

Fourth, participants reported inadequate existing actions and plans for emergency situations. Besides, mental health workers related the inadequacy of emergency procedures to poor management's commitment to safety. Regarding the high-risk nature of their work, sufficient knowledge, skills, and tools on emergency planning and preparedness can promote the health and safety outcomes of both staff and patients (Renschler et al., 2016). A study among Indonesian nurses indicated that though more than half of them have experienced workplace violence, few of them had safety information or training regarding workplace violence (Zahra, & Feng, 2018). Thus, this gap in capacity

can lead to poor safety decisions during emergencies can increase the degree of harm that will occur to exposed workers and patients (Aburumman, Newnam, & Fildes, 2019).

Fifth, participants shared their experiences on the level of safety communication as insufficient. Communication regarding OHS events and activities in mental health facilities in Ghana seems to centre around the few cases reported in the 'Incidence Books.' Participants could not identify with safety guidelines, posters, updates on issues regarding alarming occurrence and prevention strategies as routines in the facilities. The absence of formal communications regarding safety issues and events is more likely to negatively affect participants' commitment to both their safety and that of patients. A reverse was reported among English health workers where professionals' reporting behaviour was encouraged when they received regular feedback regarding adverse events and prevention activities (Howell et al., 2015). Furthermore, nurses who reported an increase in teamwork and safety communication were also noted for promoting patient safety and reported more number of errors (Ammouri, Tailakh, Muliira, Geethakrishnan, & Al Kindi, 2015).

Sixth, the experiences of participants about the delivery of safety training were as narrated inadequate. Accordingly, participants used knowledge and skills acquired from school to deal with workplace safety issues. They indicated their inadequacies with regards to safety management and their effectiveness to work in such a high-risk environment. Though the delivery of safety training programmes to health workers are reported as inadequate even in developed countries like the United States (Vladutiu et al., 2016), the case of mental health workers in Ghana is likely to be worse due to suggested poor support and safety commitment from management and government

(GhanaWeb, 2016a; Jack et al., 2015). However, the provision of safety training programmes had been suggested to improve health workers' response to workplace violence in Jordan (Al-Ali, Al Faouri, & Al-Niarat, 2016).

The generally poor safety culture experiences of mental health workers have implications for Ghana's healthcare delivery system. The national healthcare system is likely to suffer high attrition, sickness absence, poor QoWL, and turnover of mental health workers, once this trend continues (Boafo, 2016a). Looking at the smaller population of mental health workers in the entire health system of Ghana (Mental Health Authority, 2018a), and the higher patient ratio (WHO, 2015), the state of mental health is likely to worsen if the necessary attention is not given to address the safety culture issues raised by participants.

Research Question Eight: What QoWL Experiences are Acquired by Mental Health Workers in Ghana as a Result of their Lived Safety Culture Experiences?

The IPA was used to analyse the narratives to identify QoWL themes as experienced by mental health workers in Ghana. Two superordinate and four subordinate themes emerged from the narratives. These were job satisfaction (salary and compensation, and non-monetary motivations) and overall wellbeing of employees (physical and psychosocial wellbeing).

Theme One: Job Satisfaction

Participants identified job satisfaction as an essential part of QoWL which can be affected by their safety culture events. From the narratives, participants' job satisfaction was evaluated in terms of two subordinate themes; salary and compensation, and non-monetary motivations.

Salary and compensation

Salary and compensation following injury played a major role in describing their lived QoWL. A 34-year-old female worker lamented:

"...we are not treated well. I think we have been fighting all these while for better salaries that take into consideration the safety problems we face in each duty, but nothing has been done. After an accident or violence from patients, we don't get any better compensation" (6 years' experience).

Another cried out:

"The reason why most people are not satisfied with their job is because of our salaries. The work that we do doesn't correspond to the salaries we receive at the end of the month. We are exposed to a lot of safety problems apart from the usual problems other health workers face like needle stick. I have been beaten before but as for insult, it is very normal." (Female, 34, 9 years' experiences).

Additionally, the mode of reporting accident or injury at work for compensation seems to be lengthy and cumbersome for the workers. Participants also seem to have challenges with the procedures for accessing compensation. One participant complained:

"we are not compensated after an abusive incident. We are asked to write and forward our documents to the Labour Commission and that long process always yields nothing" (*Female, 34, 6 years' experiences*).

Due to these challenges, some participants decided to stop working in mental health facilities. From the narratives, although injuries and poor safety at the workplace were a major issue for participants, their decisions to leave mental health was latently motivated by the lack of compensation and poor management support after such incidence. As narrated by a participant:

"most people divert because they feel being at the ward isn't safe. I know some who diverted after being injured. After the injury, he didn't have any support or compensation to pay his hospital bills so he fought all by himself. Currently, he diverted to anaesthesia" (*Male, 33, 9 years' experiences*).

Another participant added:

"My friend who used to be a mental health worker branched into another non-mental health field after he was abused by a patient. Following the incidence, there wasn't any compensation for him. All he was told was - sorry" (Female, 33, 6 years' experiences).

A 33-year-old male participant also narrated:

"Most people I know love their profession as mental health workers but they migrate to work abroad where they can have better salaries and compensations" (9 years' experiences).

Interestingly, most of the participants who shared their turnover intentions had not left only because of the difficulties in finding new suitable jobs that match their expertise. One participant stated:

"...some want to leave but where to go is the problem? I even wanted a transfer from this hospital to a non-mental health facility but wasn't given" (Female, 33, 9 years' experiences).

Another participant also added:

"...several people have left the profession. We were about 50 students during our graduation. The last time I checked, less than 20 of us are still working in mental health. ...some have moved into different jobs including teaching or other non-mental health fields. The only reason keeping us here is that getting new jobs in Ghana is not so easy" (Female, 34, 7 years' experiences).

Non-monetary motivation

Furthermore, most participants complained of other non-monetary forms of motivations that were not awarded. For instance, mental health workers are stigmatised by both the general public and other non-mental health professionals. One worker fumed:

"we are also stigmatised by the other non-mental health colleagues and even the general public. They feel like if we stay with the mentally ill patient for a lengthy period, you become like them. I have heard some non-mental health colleagues calling us - 'mad people' when we met them" (Male, 33, 9 years' experiences).

Some participants felt their efforts were not recognised as hard-working staff, especially when they were affected negatively at work. One participant stated:

"even when a patient attacks you, there are no laid down the structure to protect staff. We are not awarded as health workers after risking our lives. You see, we are not encouraged at all to give our best" (Female, 34, 10 years' experiences).

The poor recognition of the efforts of mental health workers seems to frustrate some of them as caregivers. This can reduce their commitment to quality patient care and overall productivity.

Theme Two: Overall Wellbeing of Employees

The overall wellbeing of employees was affected by their safety culture experiences at work. This theme yielded two subordinate themes; physical and psychosocial wellbeing.

Physical wellbeing

Some mental health workers developed physical health problems due to incidence like violence at work. This was serious as some sustained injuries and morbidity that affected their overall QoWL. This situation is exemplified in the following narrative:

"I have seen cases of health workers who have sustained serious injuries like shoulder dislocations and fractures. Sometimes, a calm patient can just slap you in their hallucinations" (Male, 32, 9 years' experiences).

Due to the nature of work and patients' violence against mental health workers, some participants gave cases of colleagues who exhibited signs and symptoms of mental disorders.

"Psychological problems like stress levels can be high for some of the people when conditions are not favourable" (Female, 34, 10 years' experiences).

"One of my mates and another senior colleague were admitted on the ward due to some of the stressors and challenges" (Male, 33, 9 years' experiences).

The study's finding reveals three major themes regarding the nature of QoWL perceptions formed by mental health workers in Ghana due to their safety culture experiences. Job satisfaction was suggested as an essential part of the participants' perceived QoWL. Furthermore, job satisfaction was evaluated in two respect; salary and compensation, and non-monetary motivations. Mental health workers in Ghana perceived their salaries and compensations after workplace accidents as unsatisfactory. This poor ratio of monetary rewards to health workers' effort at work affects job satisfaction and creates a state of effort-reward imbalance (Satoh, Watanabe, & Asakura, 2017).

A study among community mental health workers in Ohio showed that improving salaries is likely to decrease turnover rates (Akintola, & Chikoko, 2016). This outcome is not surprising as Akintola and Chikoko reported that wages of workers have a positive relationship with job satisfaction and thus, low wages can even discourage workers with high intrinsic motivation. It is not surprising that health workers have associated poor wages with the abuse of their human rights (Bahcecik, Ozturk, & Tiryaki, 2016).

From the finding, some mental health workers in Ghana leave or will want to change their professions as mental health workers because of inadequate reward and compensation. Additionally, others were motivated to leave the post as mental health workers due to the need for opportunities and 'greener pastures.' These motivations to leave led several nurses to migrate from sub-Saharan Africa (Iyiola, & Armstrong, 2018). Thus, these motives explained why 48.9% of Ghanaian health workers had migration intentions due to safety culture issues (Boafo, 2016a).

Mental health workers reported that they lacked non-monetary forms of motivation. These forms of motivation were associated with the poor physical work environment, inadequate resources, insufficient psychosocial support, and poor patient outcome. Nevertheless, they suggested that they were stigmatised by both the general public and non-mental health professionals. This is also evident by supported by Lu, Zhao, and While (2019) who revealed that health workers' job satisfaction was significantly associated with factors like work environment, organizational and professional commitment, patient satisfaction and stress at work. According to Khamisa et al. (2015), non-monetary factors are stronger determinants of job satisfaction among health workers.

Some mental health workers developed physical health problems as a result of workplace violence (Tonso et al., 2016; Zaki, 2016). Participants suffered serious injuries like "*shoulder dislocations*" and *"fractures", and* psychological problems due to the nature of the work environment, predisposing the category of healthcare professionals to both direct and indirect stressors and trauma (Finklestein, Stein, Greene, Bronstein, & Solomon, 2015; Madzhadzhi et al., 2017). According to Finklestein et al., mental health workers are at traumatised communities in the Gaza Strip suffered from post-traumatic stress disorder when they were exposed indirectly to the vicarious traumatic

experiences patient shared. Thus, the overall wellbeing expressed by the health workers may affect the quality of care given to patients (Stock, & McFadden, 2017).

Ghana's general healthcare system may be affected once the QoWL of health workers is jeopardised. As mental health workers suffer the resultant effect of poor safety culture experiences like job dissatisfaction, high turnover intentions, and poor wellbeing, measures to provide immediate lucrative opportunities can avert these challenges (Khamisa et al., 2015; Lim, Chen, Aw, & Tan, 2016). Such efforts by the MoH and GHS can improve health worker commitment and retention (Acikgoz, Sumer, & Sumer, 2016). Additionally, these factors may cause Ghana to experience better health outcome (Stock, & McFadden, 2017).

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purposes of this study were to: (1) determine the existing safety culture and its effluence on QoWL including violence experienced, among mental health workers, (2) explore the interaction effects of marital status, number of violence and shift on absence due to sickness among the workers, (3) test the path relationships among safety culture, QoWL, turnover intentions, and type of mental health facilities of the workers, and (4) explore the lived safety culture experiences and how they produce QoWL perceptions among mental health workers in Ghana. This chapter presents the summary, main findings, conclusions, and recommendations.

Summary

Mental health workers are one of the health professionals with high exposure to workplace hazards. These professionals include psychiatrists, clinical psychologists, social workers, occupational therapists, clinical psychiatric officers, community mental health officers, community psychiatric nurses, mental health nurses, and enrolled mental health nurses. Mental health hospitals where these professionals work to provide care for the mentally ill are supposed to have marginal OHS risk to workers and patients. On the job, mental health professionals occupational experience hazards including biological, chemical, radioactive, physical, psychosocial and a complex network of safety risk factors. Due to the high-risk nature of mental health jobs, hospitals develop organisational safety culture to identify, adapt and overcome inevitable OHS problems.

Safety culture is the perception of workers about organisational values and beliefs on safety and how their systems respond to safety issues. Notwithstanding the rise in safety culture literature, authors offer diverse

perspectives regarding its dimensions and often confuse it with safety climate. Furthermore, some dimensions of organisational safety culture have been suggested to influence components of QoWL of employees. Not only are findings not conclusive across professions and countries, but little is also known about how safety culture affects the overall QoWL of mental health workers in Ghana. Additionally, safety culture and QoWL have been observed to have a significant effect on the quality of patient care and the safety of resources. Although some evidence exists, there seems to be no available one-time study that explored quantitatively, the effect of safety culture on QoWL, and qualitatively, the lived QoWL experiences among mental health workers in Ghana.

Notably, the consequences of poor QoWL among health workers in Ghana are severe. Estimates by WHO indicate a poor global median ratio of "9 per 100,000 population or less than one mental health worker for every 10,000 people". This statistic is even worse in low-and-middle-income countries like Ghana who have an estimated ratio of below 1 mental health worker per 100,000 population compared to over 50 per 100,000 population in high-income nations. Evidence has shown that 2011 global mental workers' estimates showed a decrease in the median of the workforce in the African Region from 1.7 (n = 25) to 1.4 (n = 34) in 2014. Again, there had been an indication that Ghana has inadequate OHS policy guidelines and no national policy to guide mental health hospitals.

Deducing from the Bandura's reciprocal determinism and Cooper's reciprocal safety culture model, mental health workers' safety culture in Ghana is more likely to directly and indirectly through turnover intentions influence QoWL of workers. Also, safety culture and type of mental health facility of

workers will have an interaction effect on turnover intentions and QoWL of mental health workers in Ghana.

The present study used the mixed methods design grounded on William James' Pragmatic Theory of Truth. Additionally, the study used the concurrent explanatory approach to collect and analyse both quantitative and qualitative data, from the three specialist mental health facilities; Accra Psychiatric Hospital, Ankaful Psychiatric Hospital, and Pantang Hospital. Using a sample of 576 mental health workers, a 69 item questionnaire with 4 sub-sections was administered at the quantitative phase. Section A of the questionnaire measured demographic variables of participants such as age, gender, education, the position at work, specialty, number of years in employment, current district, shift at work, and absence due to sickness. Furthermore, the questionnaire collected safety culture (B), turnover intentions (C) and QoWL (D) of mental health workers. For the qualitative phase, a semi-structured interview guide with 3 major questions, was used to explore the lived safety culture and quality of life as experienced by the mental health workers. Both instruments were pre-tested and data analysed for construct validity using the Confirmatory Factor Analysis, where safety culture (ASCI) factor loadings above .60 [.64 < r < .76], turnover intentions (TIS-6) above .80 [.81 < r < .88], and QOWL (WRQoL) above .70 [.74 < r < .88]. The instrument recorded overall Cronbach's Alpha reliability of 0.89 with 0.81, 0.86 and 0.91 for the ASCI, TIS-6, and WRQoL respectively.

The workers were purposively chosen for the quantitative data while purposive and snowball methods were used to select participants for the qualitative data collection. One-Way MANOVA was estimated to answer research question one. Furthermore, Factorial ANOVA was calculated to test research question two, while One-Way MANOVA was estimated to answer

research question three. Besides, Bonferroni Post Hoc test and effect size using $\eta^2 p$ analyses were estimated to determine the difference between groups and the degree of differences or effect, respectively. Moreover, Path Analysis using the SPSS PROCESS Macro was used to test research questions four, five and six. Additionally, IPA was conducted to answer research questions seven and eight.

Main Findings

The following are the findings of the study:

1. There is a general high association between workplace violence and the practice of mental health in Ghana, though some few types of workplace violence did not record significant associations.
2. Shift schedule, marital status, and the number of violence experienced at work significantly produced small interaction effect on absence due to sickness among mental health workers in Ghana.
3. Mental health hospitals in Ghana differed on the levels of turnover intentions and QoWL. However, no significant difference existed among these three facilities on levels of safety culture. Accra Psychiatric Hospital recorded higher levels of QoWL than Ankaful Psychiatric Hospital. Moreover, Ankaful Psychiatric Hospital had higher levels of turnover intentions.
4. Safety culture had a significant direct positive effect on QoWL of mental health workers in Ghana (See Fig.6).
5. Turnover intentions partially mediated the effect of safety culture on QoWL of mental health workers. Safety culture had a significant direct negative effect on turnover intentions (See Fig.6).
6. Working at these mental health facilities significantly moderates and increases the direct effect of safety culture on turnover intentions and QoWL (See Fig.6). Specifically, working in these mental health facilities had a

significant direct positive effect on turnover intentions of mental health workers. Furthermore, there was a significant positive interaction effect between safety culture and mental health facilities on turnover intentions. However, working in mental health facilities had a significant direct negative effect on QoWL of the workers. Also, a significant negative interaction effect between safety culture and mental health facilities affected QoWL.

7. The safety culture experiences among mental health workers in Ghana included management and employees' commitment to safety, management action, risk levels, accident causation perceptions, emergency procedures, communication and delivery of safety training.
8. The nature of QoWL experiences that were acquired by mental health workers in Ghana as a result of their lived safety culture included job satisfaction and overall wellbeing.
9. The data for this study fit into Bandura's reciprocal determinism and Cooper's reciprocal safety culture model and its model (Figure 6). The data and models offer sufficient results for understanding the influence of safety culture on QoWL of mental health workers in Ghana.

Conclusions

The following conclusions are drawn based on the findings:

1. Many forms of workplace violence are being perpetrated by mentally ill patients against mental health workers at all three mental health facilities. This workplace violence is more likely to pose serious adverse effects on mental health workers in these facilities.
2. The management bodies of these mental hospitals, MoH and Mental Health Authority are not paying adequate attention to OHS issues occurring in these facilities, possibly, they are less committed to OHS issues of the workers.

3. It seems little attention has paid to the rate of sickness absence and the role played by demographic characteristics like shift schedule, marital status and number of exposed workplace violence among mental health workers.
4. Generally, an increase in the safety culture of mental health workers has the likelihood to increase their QoWL and decrease their turnover intentions.
5. The perceived employability and mobility of mental health workers into other job fields might be the reason why some are still keeping their jobs at these three hospitals.
6. The absence of resources, poor compensation after an accident and inadequate reward system are important factors to define job satisfaction and turnover intentions. Besides, management efforts seem inadequate toward this domain to reduce turnover and improve QoWL.
7. The theories of Bandura's reciprocal determinism and Cooper's reciprocal safety culture model are appropriate for studying the safety culture and QoWL of mental health workers in Ghana.

Recommendations

The following recommendations are drawn based on the conclusions:

1. Management of mental health facilities, MoH and Mental Health Authority need to prioritise safety culture and QoWL issues in the three specialist hospitals. This should be demonstrated through their commitment to providing the needed resources to the professionals to work safely. An adequate supply of materials like methylated spirit, and gloves, medications need to be supplied to support the workers. Also, comprehensive OHS policy is urgently needed to address the specific safety needs of mental health workers and their patients. This policy would need to be updated regularly to include evidence-based trends for improving health facilities, workers and patients' health and safety needs.

2. Periodic health and safety training programmes are essential for mental health workers to prevent, manage and/or reduce hazards like workplace violence and accidents. These programmes would need multidisciplinary approaches and OHS specialists who will tailor training to the needs of each health facility. Mental health workers also need training on how to report safety incidence and respond appropriately in times of safety emergencies.
3. Management of mental health facilities, MoH and Mental Health Authority need to apply the all-inclusive and horizontal approach in dealing with OHS issues. This will help improve the commitment and perceptions about OHS among both managers and staff.
4. Furthermore, management of mental health facilities, MoH and Mental Health Authority need to conduct periodic OHS assessments of both physical and psychosocial work-environment to identify weaker areas that need strengthening and reinforcement. Each mental health hospital needs to have an active OHS unit and committees that can spearhead this assessment. Again, regular safety audits are encouraged, with the findings discussed at all levels by both management and staff to foster a generative safety culture.
5. Prompt professional interventions are needed following exposure to safety hazards, which have to address both the physical and psychological health needs of affected employees or patients.
6. It is important that management of mental health facilities, MoH, Mental Health Authority, and professional health bodies continues to discuss the salaries, risk allowances and compensations to address existing effort-reward imbalances, as experienced by the workers.

These further study areas are also suggested:

1. There is the need to explore the role of physical work-environmental factors and how they influence safety culture, turnover intentions and QoWL of mental health workers in Ghana.
2. A longitudinal study is essential to explore differences and variations of safety culture, turnover intentions, and QoWL among psychiatric and general hospital workers over time.
3. There is a need to also assess the role of marital quality and work-family conflict and how they affect sickness absenteeism among mental health workers in Ghana.

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APPENDICES

APPENDIX A:

INFORMED CONSENT FORM

Title: Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana.

Principal Investigator: Jacob Owusu Sarfo

Address: Department of Health, Physical Education and Recreation, University of Cape Coast, Cape Coast, Ghana.

General Information about Research

The purpose of this study will be to explore the influence of organisational values, beliefs, and response to safety issues on mental health workers' positive feelings and attitudes towards their work in Ghana. This research has become necessary because mental health workers go through several safety problems in Ghana but little is known about how it affects their feelings and attitudes towards their work. As a result, mental health workers would be required to voluntarily respond to interview questions and fill questionnaires. Data collection will last with June 2019. Results from this research will be published as part of the doctoral thesis, scientific journals, and conferences.

Procedures

To find answers to some of these questions, we invite you to take part in this research project. If you accept, you will be required to:

(1) Participate in an interview with Jacob Owusu Sarfo and my research assistants.

(2) Fill out a survey which will be provided by Jacob Owusu Sarfo and my research assistants and collected by Jacob Owusu Sarfo.

You are being invited to take part in this discussion because we feel that your experience as a mental health worker can contribute much to this research.

During the interview sessions, you may say so and the interviewer will move on to the next question if you do not wish to answer any of the questions posed during the interview. The interview will be audiotaped and will take place in the hospital. No one else but Jacob Owusu Sarfo and one of my research assistants (Ernest Mensah, George Owusu, and Nana Yaa Boatemaa) will be present during the interview sessions. The information recorded is considered confidential, and

no one else except Jacob Owusu Sarfo and one of my research assistants (Ernest Mensah, George Owusu, and Nana Yaa Boatemaa) will have access to the information documented during your interview. The audio recordings will be stored on a flash drive and stored for 10 years after the study.

Regarding the survey questionnaires, you may skip them and move on to the next question if you do not wish to answer any of the questions included in the survey. Questionnaires will be distributed while at work but you are free to carry it home to complete it. They will be collected by Jacob Owusu Sarfo after its completion. The information recorded is considered confidential, and no one else except Jacob Owusu Sarfo will have access to your survey.

The expected duration of the interview and survey are about 25 and 30 minutes respectively.

Possible Risks and Discomforts

This research poses no significant risk to the participants. The only discomfort the participants may have to endure is fatigue. To address possible fatigue, you will have ample time to answer this survey questionnaire. Do request for periodic breaks whenever you need them. You are also allowed to send the questionnaire home for a week if you cannot fill it and return on the spot. Inform Jacob Owusu Sarfo to assist you with any difficulty you may come across in answering these questions. Similarly, some of the questions may remind you of events that affected your safety at work as a mental health worker. Remember that you are not forcefully required to answer all the questions if you feel uncomfortable about them. In times of distress due to painful recalled memories of abuse or violence at work, Jacob Owusu Sarfo, who is also a Clinical Psychologist will provide free brief therapy session for you, and will refer you for further management at your consent.

Possible Benefits

This study will provide empirical evidence regarding the safety issues experienced by mental health workers and how they affect their behaviour towards work. This will help the Ministry of Health and the Mental Health Authority of Ghana to develop evidence-based policies and management strategies for mental health workers in Ghana. Results from the study will be shared with hospitals where participants work to debrief staff regarding safety and QoWL of mental health workers.

Confidentiality

We will protect information about you to the best of our ability. You will not be named in any reports. My thesis supervisors (Dr. Daniel Apaak and Dr. Edward Wilson Ansah) and research assistants (Ernest Mensah, George Owusu, and

Nana Yaa Boatemaa) may sometimes look at your research records. Also, your research records will be analysed as a group and will not identify you as an individual.

Compensation

There is no compensation provided for in this study. Participation in this research is free and there is no material benefit attached. However, I appreciate your effort and time in providing responses in this study.

Voluntary Participation and Right to Leave the Research

Your participation in this study is completely voluntary and you are free to even stop answering the items, anytime you deem it necessary. Refusal to participate (or discontinue participation) will involve no penalty or loss of any benefits to which you are otherwise entitled.

Contacts for Additional Information

For further information, you may contact the Principal Investigator (Jacob Owusu Sarfo) on 0246 485 735. You may also contact my supervisors; Dr. Daniel Apaak (0266176876) and Dr. Edward Wilson Ansah (0247703379) contact in case of research-related enquiry.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant, you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phones lines **0558093143/0508878309/0244207814** or email address: **irb@ucc.edu.gh**.

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title (***Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana***) has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

_____ _____

Date Name and signature or mark of volunteer

APPENDIX B

QUANTITATIVE QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND RECREATION

QUESTIONNAIRE FOR FACILITY BASED DATA

Dear Health Worker,

I am a Ph.D. (Health Promotion) candidate who is conducting a research survey on the **"Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana."** The rationale for this study is to promote the occupational health and safety of mental health workers in Ghana. Please note that all responses provided in this survey are confidential and used for research purposes only. This may take between 30 to 40 minutes of your time. Your participation in this study is completely voluntary and you are free to even stop answering the items should you find it necessary. Thank you for your participation.

SECTION A: Background Information

Instruction: Mark [X] the box corresponding to your choice concerning each statement below or write where applicable.

1. Gender
   a) Male ☐
   b) Female ☐
2. Age _____
3. Highest level of education
   a) Certificate ☐
   b) Diploma ☐
   c) BSc/B.A ☐
   d) Master's ☐
   e) MBChB ☐
   f) PhD ☐
   g) Others (Specify): _____

4. Area of specialty
   - Community Mental Health Nurse ☐
   - Community Psychiatric Officer ☐
   - Mental Health Nurse ☐
   - Occupational Therapist ☐
   - Psychiatrist ☐
   - Psychologist ☐
   - Psychologist's Assistant ☐
   - Social Worker ☐
   - Others (Specify): _____
5. Current rank _____
6. Health facility
   a) Accra Psychiatric Hospital ☐
   b) Ankaful Psychiatric Hospital ☐
   c) Pantang Hospital ☐
7. Years of working experience as a mental health worker_____
8. Shift:
   a) Only morning shifts ☐
   b) Only afternoon shifts ☐
   c) Only night shifts ☐
   d) Rotating morning / afternoon shifts ☐
   e) Rotating morning / afternoon / night shifts ☐
   f) Others (specify): _____
9. Marital status
   a) Married ☐
   b) Separated ☐
   c) Divorced ☐
   d) Living with a partner / cohabiting ☐
   e) Single (never married) ☐
10. Religious affiliation
    a) Christian ☐
    b) Muslim ☐
    c) African Traditional Religion ☐
    d) Others (specify): _____
11. Roughly, how many days have you been off work due to ill health in the last year? _____

12. Which of these forms of abuse have you ever experienced from patients or relatives? (tick as many as applied)
    a) punches or hits ☐
    b) Insults ☐
    c) Bites ☐
    d) Spits of saliva ☐
    e) Pouring of urine ☐
    f) Curses ☐
    g) Attacks using physical objects ☐
    h) Dress torn by patients ☐
    i) Physical acts of sexual assault ☐
    j) Demands for sexual favours ☐
    k) Verbal harassment of a sexual nature ☐
    l) Unwanted touching or physical contact ☐
    m) Unwanted sexual advances ☐

SECTION B: Instruction: Please respond to the following statements by writing the appropriate number that most accurately represents your level of the intention to stay at your organisation. The numerical rating is a range; where 1 means you do not have any intention to leave, and 5 is the highest presence of the thought to leave your facility. There are no 'correct' or 'wrong' responses; it is your own views that are essential.

During the past 9 months:

No	Item	1	Your response (2 or 3 or 4)	5
1	How often have you considered leaving your job?	*Never*		*Always*
2	To what extent is your current job satisfying your personal needs?	*To no extent*		*To a very large extent*
3	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	*Never*		*Always*

No	Item	1	Your response (2 or 3 or 4)	5
4	How often do you dream about getting another job that will better suit your personal needs?	*Never*		*Always*
5	How likely are you to accept another job at the same compensation level should it be offered to you?	*Highly unlikely*		*Highly likely*
6	How often do you look forward to another day at work?	*Never*		*Always*

SECTION C: Instruction: Please respond to the following statements by marking [**X**] the column that most accurately represents your opinion of the extent to which you agree or disagree to these safety culture statements. There are no 'correct' or 'wrong' responses; it is your own views that are essential.

		Strongly Agree (SA)	**Agree (A)**	**No Idea (NI)**	**Disagree (D)**	**Strongly Disagree (SD)**
1	Employees are given enough training to do their work tasks safely.					
2	Managers get personally involved in safety activities.					
3	In my work area, there are procedures to follow in the event of an emergency.					
4	Managers often discuss safety issues with employees.					
5	Employees do all they can to prevent accidents.					
6	Everyone is given sufficient opportunity to make suggestions regarding safety issues.					
7	Employees often encourage each other to work safely.					
8	Managers are aware of the main safety problems in the workplace.					

		Strongly Agree (SA)	Agree (A)	No Idea (NI)	Disagree (D)	Strongly Disagree (SD)
9	All new employees are provided with sufficient safety training before commencing their work.					
10	Managers often praise employees they see working safely.					
11	Everyone is kept informed of any changes which may affect safety.					
12	Employees follow safety rules almost all of the time.					
13	Safety within this institution is better than other health facilities.					
14	Managers do all they can to prevent accidents here.					
15	Accident investigations attempt to find the real causes of accidents, rather than just blame the people involved.					
16	Managers recognize when employees are working unsafely.					
17	Any faults or hazards that are reported are rectified promptly.					
18	In my work area, there are mechanisms in place for me to report safety deficiencies.					
19	Managers top unsafe operations or activities.					
20	After an accident has occurred, appropriate actions are usually taken to reduce the chances that a similar event will occur in the future.					
21	Everyone is given sufficient feedback regarding this company's safety performance.					
22	Managers regard safety to be a very important part of all work activities.					
23	Safety audits are carried out frequently					
24	Safety within this company is generally well controlled.					
25	Employees usually report any dangerous work practices they notice.					
26	I feel tense or anxious due to the nature of my work.					

		Strongly Agree (SA)	Agree (A)	No Idea (NI)	Disagree (D)	Strongly Disagree (SD)
27	I feel down or in a low mood, due to the nature of my work.					
28	I have trouble falling asleep at night.					
29	I have a clear set of goals and aims to enable me to do my job.					
30	I feel able to voice my opinions and influence changes in my area of work.					
31	I have the opportunity to use my abilities at work.					
32	I feel well at the moment.					
33	My employer provides adequate facilities and flexibility for me to fit work in around my family life.					
34	My current working hours / patterns suit my personal circumstances.					
35	I often feel under pressure at work.					
36	When I have done a good job it is acknowledged by my line manager.					
37	Recently, I have been feeling unhappy and depressed.					
38	I am satisfied with my life.					
39	I am encouraged to develop new skills.					
40	I am involved in decisions that affect me in my own area of work.					
41	My management provides me with what I need to do my job effectively.					
42	My unit/ward manager actively promotes flexible working hours / patterns.					
43	In most ways, my life is close to ideal.					
44	I work in a safe environment.					
45	Generally, things work out well for me.					
46	I am satisfied with the career opportunities available for me here.					
47	I often feel excessive levels of stress at work.					
48	I am satisfied with the training I receive in order to perform my present job.					

		Strongly Agree (SA)	Agree (A)	No Idea (NI)	Disagree (D)	Strongly Disagree (SD)
49	Recently, I have been feeling reasonably happy all things considered.					
50	The working conditions are satisfactory.					
51	I am involved in decisions that affect members of the public in my own area of work.					

APPENDIX C

QUALITATIVE QUESTIONNAIRE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND RECREATION
IN-DEPTH INTERVIEW GUIDE

Dear Health Worker,

I am a PhD (Health Promotion) candidate who is conducting a research survey on the **"Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana."** The rationale for this study is to promote the occupational health and safety of mental health workers in Ghana. Please note that all responses provided in this survey are confidential and used for research purposes only. This interview may take between 30 to 40 minutes of your time. Your participation in this study is completely voluntary and you are free to even stop answering the items should you find it necessary. Thank you for your participation.

Demographics:

i. What is your gender?
ii. How old are you?
iii. What is last school you attended?
iv. What is your marital status?
v. Which facility do you work?
vi. What is your specialty?

Section A: Lived Safety Experiences as a Mental Health Worker:

1. Can you tell me about your experiences regarding overall safety beliefs (or safety culture) and practices at work while working as a mental health worker?

Prompts:

i. What is your experience when it comes to the management's commitment to safety?
ii. What is your experience when it comes to the level of employees' commitment to safety?
iii. What is your experience with management action towards safety issues?
iv. Can you describe your level of perceived safety risk as a mental health worker?

v. What are your beliefs about accident causation at work?
vi. What are the emergency procedures in place to handle occupational health and safety cases?
vii. Can you talk about the safety training programme(s) organised by your facility? Example: Infection Prevention Control
viii. What is the nature of safety communication in your facility?

Section B: Lived Quality of Work Life

2. How do your experiences regarding overall safety beliefs and practices at work affected the way you feel and act towards your work (or quality of work life)?

Prompts:

i. How have your safety culture experiences affected your job satisfaction?
ii. Can you share more on your safety experiences have affected your overall well-being as a mental health worker?
iii. Can you also share some experiences regarding how it has affected your home-work boundary?
iv. Can you share some experiences regarding how it has affected your stress at work?
v. How have your safety culture experiences affected your control at work?
vi. Can you also share some experiences regarding how it has affected your mental health?
vii. Can you also share some experiences regarding how it has affected your turnover intentions?

3. Is there anything more you will like to share that have not been shared?

APPENDIX D

TEST EVALUATION FORM

1. How long did it take you to complete the questionnaire?

   _____minutes.

2. Were the questions easy to understand? _____Yes _____No*

* If NO, please indicate below (or directly on the questionnaire) which question was not easy to understand and needs to be clarified.

_____

_____

_____

_____

_____

3. Were the questions too many to fill? _____Yes _____No*

* If YES, please indicate below (or directly on the questionnaire) which scale that was too lengthy.

_____

_____

_____

_____

_____

APPENDIX E

ETHICAL CLEARANCE LETTER

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309/ 0244207814
E-MAIL: irb@ucc.edu.gh
OUR REF: UCC/IRB/A/2016/446
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

C/O Directorate of Research, Innovation and Consultancy

11TH JUNE, 2019

Mr. Jacob Owusu Sarfo
Department of Health, Physical Education and Recreation
University of Cape Coast

Dear Mr. Sarfo,

ETHICAL CLEARANCE – ID: (UCCIRB/CES/2019/16)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol titled **Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana.** This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu, PhD
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST
Date: 12/06/19

APPENDIX F

INTRODUCTORY LETTER: ACCRA PSYCHIATRIC HOSPITAL

UNIVERSITY OF CAPE COAST
CAPE COAST, GHANA
COLLEGE OF EDUCATION STUDIES
FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION
Department of Health, Physical Education & Recreation

TELEPHONE: +233 -0206610931/0543021384/0268392819
TELEX: 2552, UCC, GH.
Email: hper@edu.gh

Cables & Telegrams:
UNIVERSITY, CAPE COAST

Ref. No. **ED/HTP/15/0002/6**

21st May, 2019.

The Medical Director
Accra Psychiatric Hospital
Accra

INTRODUCTORY LETTER : JACOB OWUSU SARFO

The bearer of this letter is an PhD (Health Education) student of the above department. In partial fulfilment of the requirements for the programme, he is to collect data on the topic "**Influence of Safely Culture on Quality of Work Life of Mental Health Workers in Ghana**" and would need assistance from your outfit. The information collected will be used for academic purposes only and its confidentiality is assured.

We would therefore be most grateful if assistance could be offered to him to carry out the research.

We count on your co-operation.

Thank you.

Dr. Daniel Apaak
HEAD

APPENDIX G

INTRODUCTORY LETTER: ANKAFUL PSYCHIATRIC HOSPITAL

UNIVERSITY OF CAPE COAST
CAPE COAST, GHANA
COLLEGE OF EDUCATION STUDIES
FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION
Department of Health, Physical Education & Recreation

TELEPHONE: +233 -0206610931/0543021384/0268392819 Email: hper@edu.gh
TELEX: 2552, UCC, GH.

Cables & Telegrams:
UNIVERSITY, CAPE COAST

Ref. No. ED/HTP/15/0002/7

21st May, 2019.

The Medical Director
Ankaful Psychiatric Hospital
Cape Coast

INTRODUCTORY LETTER : JACOB OWUSU SARFO

The bearer of this letter is an PhD (Health Education) student of the above department. In partial fulfilment of the requirements for the programme, he is to collect data on the topic "**Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana**" and would need assistance from your outfit. The information collected will be used for academic purposes only and its confidentiality is assured.

We would therefore be most grateful if assistance could be offered to him to carry out the research.

We count on your co-operation.

Thank you.

Dr. Daniel Apaak
HEAD

APPENDIX H

INTRODUCTORY LETTER: PANTANG PSYCHIATRIC HOSPITAL

UNIVERSITY OF CAPE COAST
CAPE COAST, GHANA
COLLEGE OF EDUCATION STUDIES
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UNIVERSITY, CAPE COAST

Ref. No. ED/HTP/15/0002/8

21st May, 2019.

The Medical Director
Pantang Psychiatric Hospital
Accra

INTRODUCTORY LETTER : JACOB OWUSU SARFO

The bearer of this letter is an PhD (Health Education) student of the above department. In partial fulfilment of the requirements for the programme, he is to collect data on the topic **"Influence of Safety Culture on Quality of Work Life of Mental Health Workers in Ghana"** and would need assistance from your outfit. The information collected will be used for academic purposes only and its confidentiality is assured.

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Dr. Daniel Apaak
HEAD

APPENDIX I

CORRELATIONS BETWEEN VARIABLES

Table 8: Correlations between Variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Safety Culture	-	.644**	-.097*	.484**	.512**	.514**	.584**	-.137**	.494**	.513**	-.248**
2. Overall QoWL	-	-	-.139**	.794**	.865**	.752**	.878**	-.101*	.627**	.746**	-.307**
3. Turnover Intentions	-	-	-	-.113**	-.078	-.100*	-.080*	.151**	-.122**	-.093*	.103*
4. Control at Work	-	-	-	-	.607**	.482**	.683**	-.123**	.455**	.474**	-.301**
5. General Well Being	-	-	-	-	-	.565**	.739**	-.219**	.400**	.562**	-.278**
6. Home-Work Interface	-	-	-	-	-	-	.599**	-.136**	.449**	.995**	-.219**
7. Job Career Satisfaction	-	-	-	-	-	-	-	-.291**	.395**	.591**	-.253**
8. Stress at Work	-	-	-	-	-	-	-	-	-.085*	-.135**	.137**
9. Working Conditions	-	-	-	-	-	-	-	-	-	.446**	-.235**
10. Home-Work Interface	-	-	-	-	-	-	-	-	-	-	-.217**
11. Number of Violence	-	-	-	-	-	-	-	-	-	-	-