UNIVERSITY OF CAPE COAST

ON-SITE SAFETY PRACTICES AND HEALTH EXPERIENCES OF DEATHCARE WORKERS IN THE WESTERN REGION, GHANA

GODWIN AGBEY YAO DUMAHASI

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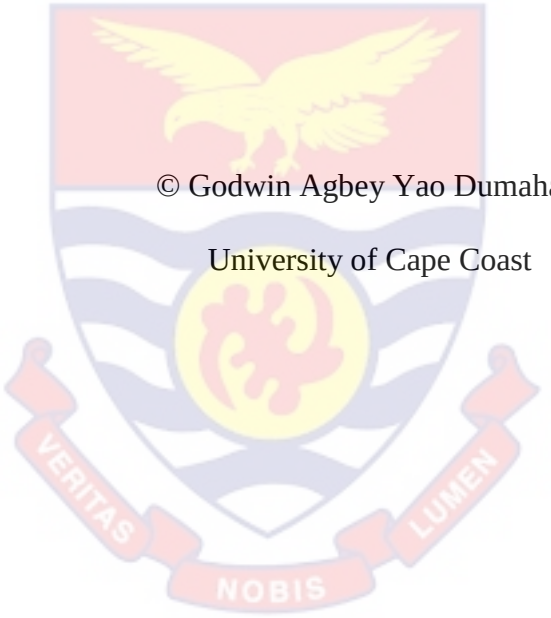

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BY

GODWIN AGBEY YAO DUMAHASI

Thesis submitted to the Department of Health, Physical Education and Recreation of the Faculty of Science and Technology Education, College of Education Studies, University of Cape Coast in partial fulfilment of the requirements for the award of Doctor of Philosophy Degree in Health Promotion (Environmental and Occupational Health Promotion)

JULY 2024

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: ……..……..

Name: Godwin Agbey Yao Dumahasi

Supervisors' Declaration

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

Principal Supervisor's Signature: …….……. Date: …….

Name: Dr. Edward Wilson Ansah

Co-supervisor's Signature: …… Date: ….…….

Name: Dr. Jacob Owusu Sarfo

ABSTRACT

Deathcare workers in Ghana are also entitled to conditions of work that uphold their health, safety, and general well-being. However, these workers are neglected and disproportionately exposed to psycho-physiological hazards and operate under dehumanising conditions. Meanwhile, there is still a lot more to be known about the deathcare industry in Ghana. Therefore, the purpose of the study was to examine the on-site safety practices and health experiences of deathcare workers in the Western Region of Ghana. Descriptive phenomenological designs with observation were employed. Through census, all 12 functional deathcare facilities were selected and assessed, while 51 deathcare workers and 12 managers were purposively selected and conveniently interviewed. Data collection started from 8th February to 10th March, 2024. Additionally, the safety work practices of all 51 workers were observed using structured observation checklists. Thematic data analysis was conducted using the NVivo version 14. Six themes and 21 sub-themes emerged based on four stated research questions. The workers' knowledge of industry regulations was inadequate and their workplace safety practices were poor. Additionally, the workers were ill-prepared to manage infectious dead bodies and there were no clear systems in place for workers protection against infectious diseases. Also, on-site physical and psychosocial safety hazards were widespread and the workers may contract infections from the dead bodies which may spread to their immediate families and the general public. Therefore, Mortuaries and Funeral Facilities Agency needs to carryout quarterly assessment of deathcare facilities to ensure the workers are adequately protected.

KEY WORDS

Deathcare Workers

First Aid

Funeral Director (FD)

Hazard

Incident

Mortuary Attendant (MA)

Personal Protective Equipment (PPE)

Risk

Workplace

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DEDICATION

To my lovely mother, Katherine Adzo Adobor, and my brothers; Simon, Victor, Emmanuel, and Noah Dumahasi.

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CHAPTER ONE

INTRODUCTION

Deathcare work is one of the hazardous jobs globally, because the workers are exposed to high levels of work-related hazards, including infectious dead bodies (Guidetti et al., 2021). While the operations of these workers are well-regulated in the developed world (Molewa, Mbonane, Shirinde, & Masekameni, 2021), they are neglected in Africa (Eziagu, Kudamnya, Onukak, & Ndukwe, 2022). The challenges are that most deathcare workers in Africa have little or no formal education, they are recruited without clear requirements, and are poorly remunerated (Botha, Ansah, & Appak, 2022; Molewa et al., 2021).

Protection of dearthcare workers is grossly a challenge in Ghana because the industry lacks basic logistics for safe, effective, and efficient work (Dumahasi, 2020). Unfortunately, the SARS-CoV-2 outbreak that also affected Ghana has exposed significant gaps in the management of infectious dead bodies (Agbobli, 2020; Dumahasi, 2020). Meanwhile, there ought to be a National Occupational Health and Safety (OHS) Policy and regulation and agency which would help serve these deathcare workers and guarantee their safety and well-being. However, Ghana lacks such a policy and institution (Ansah, Mintah, & Ogah, 2018), and the existing legislations/laws, like the Mortuaries and Funeral Facilities Act, 1998 (Act 563), the Ministry of Health's (MoH) Infection Prevention and Control (IPC) and Occupational Health and Safety (OHS) Policy Guidelines, and Ghana's Labour Law lack the depth to effectively and efficiently protect any worker or group of workers (Anaman, Osei, & Asamoah, 2007; MoH, 2010).

Background of the Study

Death is a natural eventuality or end of life and will occur for as long as life exists (Tomasini, 2017). Therefore, the deathcare industry exists to provide essential services which benefit the healthcare system, as well as society as a whole (De Jesus & Barnhill, 2023; Goodwin University, 2022). As a support service provider in the healthcare system, the deathcare industry helps in the preservation of dead bodies to prevent decaying and nuisance, ensures proper identification of dead bodies to avoid litigation and conflict, assists the medical personnel in dealing with coroner's cases, helps in the management of infectious dead bodies, as well as preserve dead bodies needing autopsy. In addition to these, the deathcare facilities also guide and console grieving families, as well as provide various deathcare services to society at large (De Jesus & Barnhill, 2023; Goodwin University, 2022).

Meanwhle, the deathcare industry is made up of several workers, including pathologist and other forensic science professionals, mortuary attendants, funeral directors, environmental health officers, and death doulas or midwives (De Jesus & Barnhill, 2023; Goodwin University, 2022). Other deathcare workers include coroners, counsellor, cemetery superintendents, engravers, pallbearers, cremators, grave diggers, security workers, funeral celebrants, drivers, etcetera. Though these workers differ in their core duties, mortuary attendants and funeral directors share very common characteristics, duties, and work-related hazards (De Jesus & Barnhill, 2023; Goodwin University, 2022). Mortuary attendants, also known as mortuary or morgue assistants or orderlies, perform many duties including cleaning of the morgue, receipt and registration of dead bodies, and cleaning and treatment (embalming) of dead bodies (Botha et al., 2022; Simone, 2022). Other duties

of this category of workers include storage and release of dead bodies, cleaning equipment and tools used, consoling grieving families, assisting pathologists in conducting autopsies, and keeping up-to-date record of activities performed at the morgues. Similarly, funeral directors (also called undertakers or morticians), perform duties that include cleaning of the funeral home, receipt and registration of dead bodies, and cleaning and treating dead bodies (Botha et al., 2022; Simone, 2022). Other duties of these workers include dressing and laying dead bodies in state, cleaning equipment and tools used, consoling grieving families, and keeping up-to-date record of activities performed.

Deathcare workers come into direct contact with dead bodies regularly, they lift and carry the dead bodies, use hazardous chemicals in their work, work under very deplorable conditions, and they are grossly under-educated and poorly remunerated (Botha et al., 2022; De Jesus & Barnhill, 2023; Goodwin University, 2022; Simone, 2022). These deathcare workers are constantly exposed to various occupational hazards that compromise their physiological and psychological well-being (Eziagu et al., 2022; International Labour Organisation [ILO], 2020a; 2020b; 2020c; World Health Organisation [WHO], 2021a; 2021b; WHO & ILO, 2021). Moreover, these workers confront multiple occupational hazards that severely undermine their psychosocial safety work environment and safety participation (Guidetti et al., 2021), as they regularly deal with death and human remains at work (United States Government [USG], 2020; Yardley, Carson-Stevens, & Donaldson, 2018). Primarily, occupational hazards in the deathcare industry range from contact with chemicals and biological agents, noise, and ergonomic conditions (Botha et al.; Dartey et al., 2021; Litana & Kapambwe, 2017; Suwalowska,

Amara, Roberts, & Kingori, 2021). For instance, as the dead bodies are being processed, either for preservation or burial, a variety of chemicals, including sanitising agents and disinfectants as well as additives, normally referred to as embalming fluids are used (O'Keeffe, 2021; Vidua, Duskova, Bhargava, Chouksey, & Pramanik, 2020). Typically, embalming fluids contain a mixture of formaldehyde, glutaraldehyde, methanol, and other solvents.

Though some of these chemicals (formaldehyde) pose existential threat to the health and well-being of the deathcare workers, the use of these chemicals in the industry is widespread (Chika, 2021; Waschke et al., 2019). Apart from these chemicals, this cadre of workers are frequently exposed to fluids from decedents and other fixatives through inhalation and direct skin contact (Ringane et al., 2019; Sugata, Miyaso, & Osaka, 2016; WHO, 2021b). For instance, incidence of splashes of fluids via the oral, nasal and other orifices of decedents onto the body, eyes, and mouth of the deathcare workers while they process dead bodies occur on regular basis (Akinyemi, Adenaike, Ilesanmi, & Ojezele, 2021; Government of Canada, 2020). This may occur when due care is not observed and workers are not well-protected while dealing with the abdomen and chest of the dead body. In addition, the deathcare industry is heavily laden with psychological hazards, including stress (Levkovich, & Shinan-Altman, 2021; Mridula & Ganesh, 2016; Trabelsi, 2021; USG, 2020; WHO & ILO, 2021).

There is high level of stress symptoms among deathcare workers, perhaps, result from feeling of emotionally emptiness, anxious, depression that lead to increased consumption of alcohol and drug misuse (Levkovich, & Shinan-Altman, 2021; Mridula & Ganesh, 2016; Trabelsi, 2021; USG, 2020; WHO & ILO, 2021). These workers may also experience high levels of mood

swings, denial, absenteeism, which may cumulatively result in compassion fatigue and secondary traumatic stress. Thus, the very nature of deathcare work predisposes the workers to significant pressures, which may distort their physical and psychosocial well-being (McClanahan, 2020). For instance, the continuous contact with, especially the face and hands of the decedents can activate and leave long-term stress and trauma on these workers (Centre for the Study of Traumatic Stress [CSTS], 2020; Kamal, 2021; Overmeire & Bilsen, 2020).

In Africa, deathcare workers are widely reported to work in very dehumanising work conditions (Aljabri et al., 2020; Botha et al., 2022; Dartey et al., 2021; James, Nanyingi, Katongole, Anguyo, & Wampande, 2015; Omoijiade & Okareh, 2018; Pan American Organisation [PAO] & WHO, 2020; Yaacoub et al., 2020). This is because the deathcare industry is the most neglected work institution in Africa (James et al., 2015; Molewa et al., 2021). Most deathcare workers in Africa have very low or no formal education, they are recruited without any clear requirements, the have little or no knowledge on OHS, and woefully adequately participate in safety issues in their morgues or funeral homes (Botha et al., 2022; Ringane et al., 2019). The evidence is that these workers are unaware of and lack the needed knowledge about the policies that protect their health and safety, infection prevention and control (IPC), and OHS in general (Litana & Kapambwe, 2017; Mittal & Wakschlag, 2017; Nyaberi, Kakai, Obonyo, & Othero, 2014). Unfortunately, the safety practices of these workers are unacceptably poor (Dartey et al., 2021; James et al., 2015), because of the lack of adequate facilities for processing and storing infectious bodies, like the SARS-CoV-2 fatalities (PAO & WHO, 2020; Yaacoub et al., 2020). Furthermore, consistent with developments globally,

increasing temperatures are influencing work schedules, capabilities (Grayson & Oza, 2023; Guenel & Leger, 2023; Silva & Costa, 2023) and productivity of these workers (National Farm Worker Ministry [NFWM], 2021; Pal & Patel, 2021; Smith, 2019). Besides, these workers are not adequately trained to handle infectious bodies safely (James et al., 2015; Molewa et al., 2021). Compared to the advanced countries, deathcare workers in Africa are found to report higher levels of work-related physical, psychosocial, and physical injuries (Aljabri et al., 2020; Omoijiade & Okareh, 2018; PAO & WHO, 2020; Yaacoub et al., 2020).

The deathcare industry is replete with multiple workplace hazards that endanger health and well-being of deathcare workers in Ghana (Asare-Donkor, Appiah, Torve, Voegborlo, & Adimado, 2020; Botha et al., 2022; Dartey et al., 2021; Dumahasi, 2020; Nkrumah, Liu, Fiergbor, & Akoto, 2021). Moreover, the main facilities in the industry (morgues and funeral homes) lacked adequate functional toilets and bathrooms, hand washing facilities, are poorly ventilated and illuminated, and generally nontherapeutic and are inhumane (Dartey; Dumahasi). Thus, deathcare workers endure a complex mix of work-induced hazards than the average worker in Ghana (Asare-Donkor et al., 2020; Dartey et al., 2021). The SARS-CoV-2 outbreak further worsened the work conditions of this group of workers and left them disproportionately worst impacted in Ghana (Agbobli, 2020; Eziagu et al., 2022). During the pandemic, deathcare facilities, especially morgues, were full and chocked with decedents as the number of dead bodies increased (Eziagu et al., 2022).

Though deathcare work is precarious, the global SARS-CoV-2 pandemic posed the biggest threat to these workers, compromising the overall

realisation of the decent work for all agenda in recent time (CSTS, 2020; Kamal, 2021). Working on dead bodies or decedents around this era aroused strong feelings of disappointment, disgust, repulsion, terror, and rage at the sheer absurdity of this global tragedy (SARS-CoV-2) (CSTS, 2020; Khoo et al., 2020). For example, there were reported nightmares, anxiety, or intrusive memories among many deathcare workers, because of the large number of decedents they had to deal with per day during the pandemic (Durand-Moreau & Galarneau, 2021; Malik & Kamran, 2020).

Currently, there are no universally binding laws or policies on the operation of deathcare facilities, as most countries and states have their own regulations (Ministry of Health and Wellness, 2016). However, there are notable international organisations that provide guidelines and standards of operation for the deathcare industry. For instance, the International Federation of Funeral Directors Association publishes guidelines and sets standards for best practices for deathcare professionals regarding operational issues, ethical standards, as well as the quality of care (Ministry of Health and Wellness, 2016). The WHO also published a number of guidelines on the safe management of dead bodies, with emphases on infection prevention and control, deathcare facility design, and operation (WHO, 2021a; 2021b; 2019). The Centre for Disease Control, United States of America, and the European Centre for Disease Prevention and Control (ECDC) have published several guidelines on the Universal Precautions for the Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and other bloodborne pathogens in health and deathcare settings (ECDC, 2020; Ministry of Health and Wellness, 2016).

Overall, these international guidelines cover areas such as deathcare facility design and construction, qualifications of deathcare workers, identification and documentation of dead bodies, sanitation and hygiene procedures, transportation of dead bodies, preservation techniques, and finally, the procedures for dead body disposal (ECDC, 2020; Ministry of Health and Wellness, 2016; WHO, 2021a; 2021b; 2019). Meanwhile, the ILO's decent work for all agenda provides for productive jobs for all working people under conditions that ensure freedom, security, justice, and human dignity (ILO, 2020b). Thus, there is the need for a robust and effective national policy on workplace safety for all working people in Ghana (Ansah et al., 2018; Botha et al., 2022).

There is no clear national commitment, by way of national policy, on OHS to safeguard the Ghanaian workforce (Ansah et al., 2018; Dartey et al., 2021). Existing legislations/laws like the (i) Labour Act, 2003. Act 651; (ii) Workmen's' Compensation Act 1987 (PNDCL 187); (iii) C148 - Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148), ratified on May 27, 1986; and (iv) the Mortuaries and Funeral Facilities Act, 1998 (Act 563) lack depth and comprehension (Anaman, Osei, & Asamoah, 2007; Hodges & Baah, 2006). To this end, the Ministry of Health, Ghana, formulated and rolled out a policy-guideline on OHS for its employees (MoH, 2010). This OHS policy-guideline provides, inter alia, for strict adherence to IPC, adequate supply and use of personal protective equipment (PPE), and regular training for all healthcare workers, including mortuary attendants. Moreover, underpinning workplace safety policies are theories that are used to deepen the understanding of the various subjects in attempt to

build evidence-based interventions that protect the worker (Glanz & Bishop, 2010; Pouliakas & Theodossiou, 2010).

Several models and theories directly or indirectly explain factors that influence the state of OHS and safety participation of deathcare workers (Pouliakas & Theodossiou, 2010). For example, the theory of sub-optimal allocation of job market risk (Henderson, 1983) explains that lower level workers are confronted with more workplace hazards than the middle and upper level workers. The theory suggested that because some work-related illnesses take years to manifest, for instance, cancer, employers usually avoid paying compensations to workers who may suffer such illnesses (Gilbert, 2006; Kahneman & Tversky, 1979, 2000; Slovic, 2000). Similarly, the compensating wage differentials (CWDs) theory (Rosen, 1986) suggests that potential employees normally prefer jobs with comparatively increased hazards due to the attractive remuneration or incentives associated with such jobs. Thus, workers who are risk-averse would normally accept job offers with moderately safer work conditions, while those who are less risk-averse would likely accept jobs with relatively higher-risk work conditions (Marin & Psacharopoulos, 1982; Smith, 1776). Another important theory is the health belief model (HBM), arguably one of the most popular theories in public health (Glanz & Bishop, 2010; Glanz, Lewis, & Rimer, 1991; Rosenstock, 1966). The six fundamental constructs that underpinned the HBM, include perceived susceptibility, perceived severity, perceived threat, perceived benefits, perceived barriers, and cues to action. Accordingly, these factors influence the safety participation decisions of a worker, the decision to continue practicing safety, or decline to observe safety while at work (Lawson & Lawson, 1992; Rimer & Glanz, 2005). Therefore, the perception of workers

about a hazard largely determines their readiness to observe safety regulations (Lawson & Lawson, 1992).

Statement of the Problem

Generally, there is inadequate research on deathcare workers in Ghana (Asare-Donkor et al., 2020; Dartey et al., 2021). Search for studies on the safety of deathcare workers in Ghana revealed a few existing (Asare-Donkor et al., 2020; Botha et al., 2022; Dartey et al., 2021; Dumahasi, 2020). Accordingly, the deathcare workers in Ghana work under dehumanising conditions, are neglected, marginalised, and disproportionately exposed to dangerous chemicals and diseases (Asare-Donkor et al., 2020; Botha et al., 2022; Dartey et al., 2021; Dumahasi, 2020). Specifically, the existing evidence suggest that the awareness and knowledge of deathcare workers about the policies that protect their health and safety is sub-optimal (Botha et al., 2022; Dartey et al., 2021). Additionally, these workers are unaware or lacked adequate knowledge in IPC and OHS in general (Asare-Donkor et al., 2020).

Safety practices of workers people are essential for both the personal and organisational protection and growth (Asare-Donkor et al., 2020). For instance, personal factors such as formal education, perceptions, belief/philosophy of work, and awareness and knowledge of deathcare industry policies and standards of operations were proposed as prerequisites for deathcare workers' awareness and knowledge and collective worker-manager responsibilities under the deathcare regulations (the IPC and OHS policies of the MoH and Ghana's Labour Law) (Henderson, 1983; Lipsky, 1980; Rosen, 1986). In addition to that, institutional factors such as resources/logistics, facilities, workload, training/ orientation, monitoring and supervision, and medical screening have also been found to predict on-site

safety practices, health and well-being of deathcare workers (Henderson, 1983; Lipsky, 1980; Rosen, 1986). Therefore, any shortfall in either of these variables would negatively impact the system and lead to deterioration in the on-site work practices and health (Dartey et al., 2021; Henderson, 1983; Rosen, 1986).

However, deathcare workers in Ghana have reported seriously poor safety practices while at work (Asare-Donkor et al., 2020). Perhaps, these deathcare workers are inadequately trained, resourced, poorly monitored and supervised, and poorly remunerated for the work they do (Asare-Donkor et al., 2020; Dartey et al., 2021). Furthermore, the SARS-CoV-2 pandemic exposed how the deathcare industry in Ghana lacks adequate facilities for processing and storing infectious dead bodies (Botha et al., 2022). Meanwhile, as of March 8, 2024, the Western Region recorded 8,821 confirmed cases of SARS-CoV-2 with 73 deaths (Ghana Health Service [GHS], 2024). Thus, of the 16 administrative regions in Ghana, Western Region placed 3rd in the regional breakdown of confirmed SARS-CoV-2 cases, making it a region of interest as far as the pandemic and other haemorrhagic fevers are concerned (GHS, 2024). This means that the deathcare workers in the Western Region are being disproportionately impacted by workplace hazards, because the region also shares boraders with other countries such Ivory Coast, Liberia, and Guinea, collectively called the fever belt (Akinyemi et al., 2021; Ringane et al., 2019; WHO, 2019; WHO & ILO, 2018). The challenge is that, the deathcare workers in the Western Regions are also likely to be receiving infectious disease dead bodies from these fever belt countries.

Meanwhile, due to limited evidence in Ghana, the main factors accounting for the poor awareness and knowledge among deathcare workers

about the policies on their rights to decent work are unclear. Besides, little evidence in Ghana shows how deathcare workers managed the SARS-CoV-2 fatalities. Moreover, very little is known about how increasing temperatures is influencing the safety work practices of deathcare workers in Ghana. Additionally, there is inadequate evidence in Ghana on workplace physical and psychosocial hazards experienced by deathcare workers. Therefore, the study seeks to explore the lived experiences of deathcare workers with the view to establishing their work-based concerns and challenges as well as the contextual factors that inform/underscore those experiences.

Purpose of the Study

The purpose of the study was to examine the on-site safety practices and health experiences of deathcare workers in the Western Region of Ghana, using descriptive phenomenological designs with observation.

Research Questions

The following research questions guide the study:

1. What is the knowledge of deathcare workers in Western Region on the MoH's OHS and IPC Policy Guidelines and Ghana's Labour Law?
2. What are the on-site safety practices of deathcare workers in the Western Region?
3. How are infectious bodies managed by deathcare workers in the Western Region of Ghana?
4. What are the on-site psycho-physical safety hazards experienced by deathcare workers in the Western Region on Ghana?

Significance of the Study

Deathcare workers are also workers who are entitled to work under conditions that dignify their humanity, promote and protect their health and

general well-being. One sure way to provide adequate protection for these workers from the hazards is to have adequate knowledge about their exposures. Therefore, findings of this study will help draw the attention of the deathcare workers to policies that protect them at work, and which may also help improve on their work practices. Moreover, the findings will also help re-direct the focus of managers of deathcare facilities in the Western Region to the OHS concerns of deathcare workers. This will help improve the working conditions of the deathcare workers and hopefully create a valuable framework for policy development and evaluation in this area. Furthermore, the findings may be a substantial addition to current knowledge on the work of deathcare workers, and create the grounds for future research in this area.

Delimitation

The study is delimited to only functional mortuary facilities and funeral homes and their workers, including the managers, in the Western Region, Ghana.

Limitations

The study used purposive sampling method to recruit the deathcare workers from only one region (Western Region) out of the sixteen administrative regions of Ghana. Therefore, the findings are limited to only workers in the Western Region. Also, recruiting the workers using purposive sampling technique may limit the generalizability of the findings to the other fifteen regions of Ghana. Moreover, the descriptive phenomenological design applied in this study further limits the generalizability of the findings across other regions in Ghana.

Definition of Terms

Accident: An unplanned, undesired, or unintended incident leading to, or might have led to death, injury, damage or exposure, or ill-health of individuals or object(s) (Phoenix Health and Safety [PHS], 2018; Victoria State Government [VSG], 2020).

First Aid: It is an aid or treatment offered a person or more who sustained illness or injury. This aid/treatment is often minor in nature or offered in lieu of actual medical intervention (VSG, 2020).

Funeral Director (FD): A person whose job is to prepare decedents either for burial or cremation, or to arrange funerals. They are also known as undertakers or morticians, but are now preferably called funeral directors (McLeod, 2022).

Hazard: A potential source of harm, ill-health, injury, loss or damage to an individual or group, property and the environment (Health and Safety Authority [HSA], 2020; PHS, 2018; VSG, 2020).

Incident: An event resulting in or could have resulted in an injury. This includes near misses, accidents, and injuries (VSG, 2020).

Mortuary Attendant (MA): They include all who perform various duties at the morgue (Dartey et al., 2021).

Personal Protective Equipment (PPE): All materials or appliances or devices worn or held for protection against one or more health and safety hazard, e.g. gloves, goggles, safety footwear, aprons, safety helmets, and coveralls (HSA, 2020).

Risk: It is the probability of harm arising from contact with any hazard and the effects of that harm (HSA, 2020; VSG, 2020).

Workplace: It is a place, either a building or structure, where work is done e.g. parliament, school, court (VSG, 2020).

Organisation of the Study

The study comprised five chapters, one, two, three, four, and five. Chapter one includes the introduction, background of the study, statement of the problem, purpose of the study, research questions, significance of the study, delimitation, limitations, and definition of terms. Chapter two examines relevant theories, conceptual framework, and reviewed related literature. Chapter three looks at the research methods including, research design, study area, population, and sampling procedure. The chapter also covers data collection instruments, data collection procedures, and data processing and analysis. Chapter four presents the results and discussion, while five covers summary, main findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

The purpose of the study was to examine the on-site safety practices and health experiences of deathcare workers in the Western Region of Ghana, using descriptive phenomenological design with observation. This chapter reviewed literature relevant on the study to establish existing theoretical and empirical knowledge and highlighted existing gaps that needed to be filled. Thus, the chapter is organised under the following headings:

1. The State of Occupational Health and Safety
2. Characteristics of Deathcare Workers (Mortuary Attendants and Funeral Directors)
3. Review of Theories/Models of Occupational Health and Safety
4. Review of Concepts
5. Review of Related Literature
6. Theoretical Framework of the Study
7. Conceptual Base of the Study
8. Summary

The State of Occupational Health and Safety

This section provides a brief background to the state of occupational health and safety across the world. The section specifically discussed the lead role of the International Labour Organisation in the evolution of OHS in the global sphere, and the state of OHS globally, Africa and Ghana.

The global Occupational Health and Safety outlook

The establishment of the ILO in 1919 set the tone for labour rights globally (ILO, 2023; 2021b; 2019b; Rondinone et al., 2021). As the parent body for labour rights worldwide, the ILO develops and adopts labour

standards, ensures their ratification and enforcement by member countries and supervises their enforcement so as to realise its objectives (ILO, 2023; 2019a). To give further impetus to the rights of workers, the ILO was elevated to the status a specialised agency of the UN in 1946 (ILO, 2023). Through its special structure, "tripartite" feature, the UN agency provides an even platform for governments, employers, and employees to contribute to issues affecting workers globally (Albin, Bodin, & Wadensjö, 2021; Cunningham, Jacklitsch, & Richards, 2021). Some of the instruments applied by the ILO include the Forced Labour Convention, 1930 (No. 29) and Labour Inspection Convention, 1947 (No. 81), the Rights to Organise and Collective Bargaining Convention, 1949 (No. 98), and the Equal Remuneration Convention, 1951 (No. 100) (ILO, 2023; 2021b).

Since 1919, ILO has contributed significantly to mainstreaming workers' rights and reducing work-related injuries and diseases (Felknor et al., 2021; Hawkins, Davis, & Kriebel, 2021). In recognition of this, the ILO received the Nobel Peace Award on its 50th anniversary in 1969. As at date, the ILO has 189 Conventions and 205 Recommendations, some dating back to 1919 (Horan, Shoss, Mejia, & Ciarlante, 2021; ILO, 2023, 2021b). Meanwhile, some of these instruments are now antiquated and inconsistent with current OHS needs (ILO, 2023; 2021b). Therefore, the ILO revised some instruments, replaced some, and introduced new provisions (Kavouras, Vardopoulos, Mitoula, Zorpas, & Kaldis, 2022; Kavouras & Mitoula, 2020).

ILO introduced the Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205) (ILO, 2023), which aims to realise specific Sustainable Development Goals (SDGs) that are directly or indirectly associated with OHS (Kiran, 2021; Loizia, Voukkali,

Chatziparaskeva, Navarro-Pedreño, & Zorpas, 2021; Mouneer, 2021). These include the SDG 3.9, which seeks to significantly alleviate mortality and morbidity from hazardous substances and guarantee healthy lives and well-being (ILO, 2023; 2021b; Tuhul, El-Hamouz, Hasan, & Jafar, 2021), and SDG 8.8 that seeks to uphold labour rights and promote safe and secure workplaces for all workers. Regardless of the global commitment to OHS through the SGDs, accidents and diseases connected to work are still prevalent worldwide (Psacharopoulos & Patrinos, 2018; Reis, Oliveira, Braga, Silva, & Silva, 2020).

The Occupational Health and Safety in the African Context

Africa has a checked history when it comes to OHS (ILO, 2021b; 2019b). Though most countries in Africa are members of the ILO and in principle, commit to its collective values and principles, this does not reflect much in practice (ILO, 2023; 2021b). For instance, the ILO instruments No. 155 (Occupational safety and health), No. 161 (Occupational health services), and others which are supposed to uphold workers' rights are yet to be realised in many African countries (Moyo et al., 2017). At the continental level, the Organisation of African Unity (OAU) also registered its commitment to worker-protection through Article 15 of the African Charter on Human and Peoples' Rights (OAU, 1982). The article provides for the protection and promotion of the health and well-being of all workers in the continent. However, there are a number of factors that are implicated in the poor state of OHS in Africa, including lack of national policies on OHS in many member countries, increasing unemployment, and low level of awareness and knowledge about labour rights among workers (ILO, 2019a; 2019b).

Unfortunately, political instability, high level of corruption, lack of political and employer leadership commitment to human rights, and poverty are worsening the state of OHS in Africa (ILO, 2022; Ringane et al., 2019). Moreover, the continent is replete with high incidence of child labour, forced labour, and an ever-increasing number of young people involved in hazardous jobs (ILO; 2019b; Mossburg et al., 2019; Ringane et al., 2019). Regardless of efforts aimed at securing better work conditions for all people, workplace accidents and illnesses in Africa are reported to be incredibly high (LaDou, London, & Watterson, 2018; Mossburg et al., 2019). For example, in South Africa, the collapse of a five-story building caused the death 33 workers on May 8, 2024 (Voice of America, 2024) and 11 miners died in a mine accident 2023 (Redaction, 2023), while in Mali, the collapse of an artisanal building mine lead to the death of 70 miners in 2012 (Al Jazeeranews, 2024). In Nigeria, a school building collapse killed 21 people while students were writing exams in 2024 (Brown, 2024) while 59 electricity workers died in the last quarter of 2023 and first quarter of 2024 (Olawin, 2024). In Ghana, road traffic accidents alone caused the death of over 1000 workers who were commuting to and from work in 2020 (Asare, 2022), and the Takoradi gas explosion in 2017 caused the injury of over 100 individuals (Mouahidi, 2017).

The Occupational Health and Safety Situations in Ghana

Ghana became an oasis of peace and stability within the West African sub-region since transitioning to the fourth republican rule (Amponsah-Tawiah & Dartey-Baah, 2011). With no clear plan for OHS in place, workplace hazards are increasing in number and mix (Ansah et al., 2018; Ghana Employer' Association [GEA], 2022; Ministry of Employment and Labour Relations [MELR], 2019). Meanwhile, data on workplace accidents is

woefully inadequate (MELR). Moreover, the chronic unemployment situation in the country is undermining the "decent work for all" agenda prescribed by the ILO (GEA, 2022). Most workplaces and their operations are inconsistent with the SDG 8 agenda (Bureau of Public Safety, 2022; Sarfo, 2019).

In the year 2018, Ghana recorded 36 cases of workplace accidents, nearly 14% resulted in death (MELR, 2019), and workers within the age group of 25–34 accounted for 60% of work-related deaths. Meanwhile, these figures are largely conservative as there is chronic underreporting of work-related accidents and illnesses in Ghana (MELR, 2019). Though a member of the ILO, Ghana failed to leverage the over 70 ILO OHS instruments to develop a national OHS policy (Ansah et al., 2018; GEA, 2022). Therefore, the options available for workers who suffer work-borne injuries are legislations with very scanty and narrow scope and content (Dumahasi, 2020; GEA, 2022). Some of these instruments include the Labour Act, 2003 (Act 651), Working Environment Convention, 1977 (No. 148), and Underground Work Convention, 1935 (No. 45) (GEA, 2022). Others include the Hygiene Convention, 1964 (No. 120), Disability Act, 2006 (Act 715), Mortuaries and Funeral Facilities Act, 1998 (Act 563), and Workmen's Compensation Act, 1987 (PNDCL 187). Also included are the Factories, Offices and Shops Act, 1970 (Act 328), Radiation Protection Convention, 1960 (No. 115), and Civil Liability Act, 1963 (Act 176) (GEA, 2020).

The Labour Law (Act 651) is one of the core regulations that attempt to protect workers in the country, by defining the responsibilities of duty bearers (employers) and those of the right holders (employees) (Amponsah-Tawiah & Dartey-Baah, 2011; GEA, 2022; MELR, 2019). Additionally, it defined who an employee is and prescribed the conditions for terminating

engagement contracts (Dumahasi, 2020; MELR, 2019). Again, the Disability Law (PwDs) (Act 715) obligates employers to provide and create supportive conditions for all workers, especially workers with disabilities (MELR, 2019). These conditions must eliminate, inter alia, all forms of stigma and discrimination within the work environment against a person with disability. In addition, the Workmen's Compensation Law (PNDC Law 187) considered issues relating to cash compensations to workers who sustain injuries on the job, and also to relatives in case of death of a worker (Amponsah-Tawiah & Dartey-Baah, 2011; Dumahasi, 2020). Given the nature and gravity of hazard suffered, a worker has to rely on bits and pieces of these different legislations to demand their OHS rights (GEA). Clearly, with the lack of a comprehensive national policy of OHS and a well-resourced agency or institute, there is no strong commitment towards the ILO's decent work "for all" agenda in the country (Dumahasi, 2020).

Characteristics of Deathcare Workers (Mortuary Attendants and Funeral Directors)

Mortuary attendants and funeral directors are important cadre of workers in the deathcare industry (De Jesus & Barnhill, 2023; Goodwin University, 2022). Though these deathcare workers differ minimally in some characteristics, they share significantly common characteristics that define their safety participation and exposure to hazards (Botha et al., 2022; Simone, 2022). Typically, mortuary attendants differ in the following duties: storage of dead bodies for relatively longer periods, pick fluids and skin samples of dead bodies for assessment, and assist pathologist during autopsies (Botha et al., 2022; Dartey et al., 2021; Litana & Kapambwe, 2017). Also, mortuary attendants operate from mortuary facilities which are normally in close

proximity to hospital facilities. In terms of ownership, majority of mortuary facilities in the developing countries, including Ghana, are government owned (Dartey et al., 2021; Suwalowska, Amara, Roberts, & Kingori, 2021). This is however, different in most advanced countries where the mortuary industry is dominated by the private sector (De Jesus & Barnhill, 2023; Goodwin University, 2022). Funeral directors, on the other hand, are unique in the following duties: arrange for burial or cremation of dead bodies, clean, dress, and lay dead bodies in state (Simone, 2022). Globally, funeral homes are privately owned and are normally located far away from hospital facilities. Notwithstanding, the similarities of mortuaries and funeral homes far more outweigh their differences (Goodwin University, 2022; Simone, 2022).

Characteristics that identify all deathcare workers include: they perform basic housekeeping duties (cleaning, mopping, dusting, removal of cobwebs, etc.), receipt and registration of dead bodies (De Jesus & Barnhill, 2023; Goodwin University, 2022). Other similarities include receipt and storage of chemicals and other logistics, carrying dead bodies, cleaning and embalming dead bodies, advice and console grieving families, clean equipment and tools, and keep up-to-date record of all activities performed while at work. Moreover, in most developing countries, these workers have low educational level and are from very poor backgrounds (Botha et al., 2022; Dartey et al., 2021; Litana & Kapambwe, 2017; Simone, 2022).

Review of Theories/Models of Occupational Health and Safety

There are various theories that underpin the study of workplace health. These theories may include the Sub-Optimal Allocation of Job Market Risk theory (Henderson, 1983), Compensating Wage Differentials (CWDs) theory (Rosen, 1986), and the Health Belief Model (HBM) (Glanz & Bishop, 2010).

Sub-Optimal Allocation of Job Market Risks

The theory of Sub-Optimal Allocation of Job Market Risks (SOAJMRs) was developed by Henderson in 1983. The theory sought to explain the distribution of workplace hazards among workers (Henderson, 1983). Henderson grouped employees into the upper-level workers (i.e. senior management, directors, chief executive officers, chief directors, and senior security officers), middle-level workers (i.e. departmental heads, supervisors, and sectional heads), and lower-level workers (essentially frontline workers). The theory posits that workplace hazards appear to be higher among lower-level workers than those at the middle and upper-levels. The theory identified some factors that account for this disproportionate exposure to hazards among lower-level workers, including inadequate resources, low level of formal education, and high workload. Figure 1 below provides details on the variables that define the theory.

Typically, frontline workers are faced with inadequate resources and logistics, they worker with non-functional or faulty equipment, poorly designed work stations, and have no reliable avenues for lodging complaints (Gilbert, 2006; Slovic, 2000). In case of deathcare workers, the basic resources may include PPE, regular supply of water, available and functional hygiene facilities, sanitizers, and stand-by generators (Dartey et al., 2021; Dumahasi, 2020). These are necessary for effective and efficient work, which also support adequate protection from workplace hazards. Generally, the middle and upper-level workers seem to ignore the resource needs of frontline workers and rather focus on themselves first (Kahneman & Tversky, 2000; 1979). The argument is that most frontline workers, like deathcare workers, have little or no formal education so they are placed on the last scale of the

organisation's protection priorities (Henderson, 1983). Due to their limited level of formal education, these frontline workers are handicapped in their understanding of safety policy guidelines. Thus, these workers are unable to demand their rights for protection from the manager and are therefore, left mostly vulnerable and unprotected (Kahneman & Tversky, 2000). Another variable contributing to the poor work conditions of low-level workers is workload. The theory suggested that the number of frontline workers is inadequate to match the volume of work they normally do, a situation that increases their vulnerability to hazards at work (Gilbert, 2006; Kahneman & Tversky, 2000).

Many of these workers work with irregular work-time arrangements which could affect their physiological and psychological well-being. Henderson argued further that because some work-related diseases like cancer take years to present, most organisations fail to take responsibility for these conditions. Regardless of its high validity to workplace health and safety, the theory suffered some criticisms which are worth acknowledging. Some cognitive psychologists posit that the theory failed to account for risk underestimation by some people (Kahneman & Tversky, 2000; 1979; Slovic, 2000). The argument here is that, the reactions of individuals to risk of danger are not always well informed or rational. Moreover, Gilbert (2006) observed that people systematically commit errors in their bid to foretell the future and perceive future dangers. This is essentially so because such individuals tend to ignore the reality of how present events and emotions inhibit accurate assessment of the future (Bernstein, 1996). Referred to as optimism bias, Weinstein (1989) argues that people frequently overcast their personal immunity to danger. Therefore, important variables like the individual's risk

underestimation and optimism bias, which the SOAJMRs theory failed to account for, influence worker behaviour towards workplace health and safety.

Notwithstanding its limitations, the SOAJMRs theory remains very useful and relevant for this study. This is because it directly addresses the central theme of this study, which is workplace health and safety. Moreover, the variables covered in the theory such as resources, formal education, and workload are at the heart of the work of deathcare workers. The theory was previously used (Dumahasi, 2020) to investigate the OHS conditions of mortuary workers and to also investigate the work conditions of mine workers (Kahneman & Tversky, 2000; 1979).

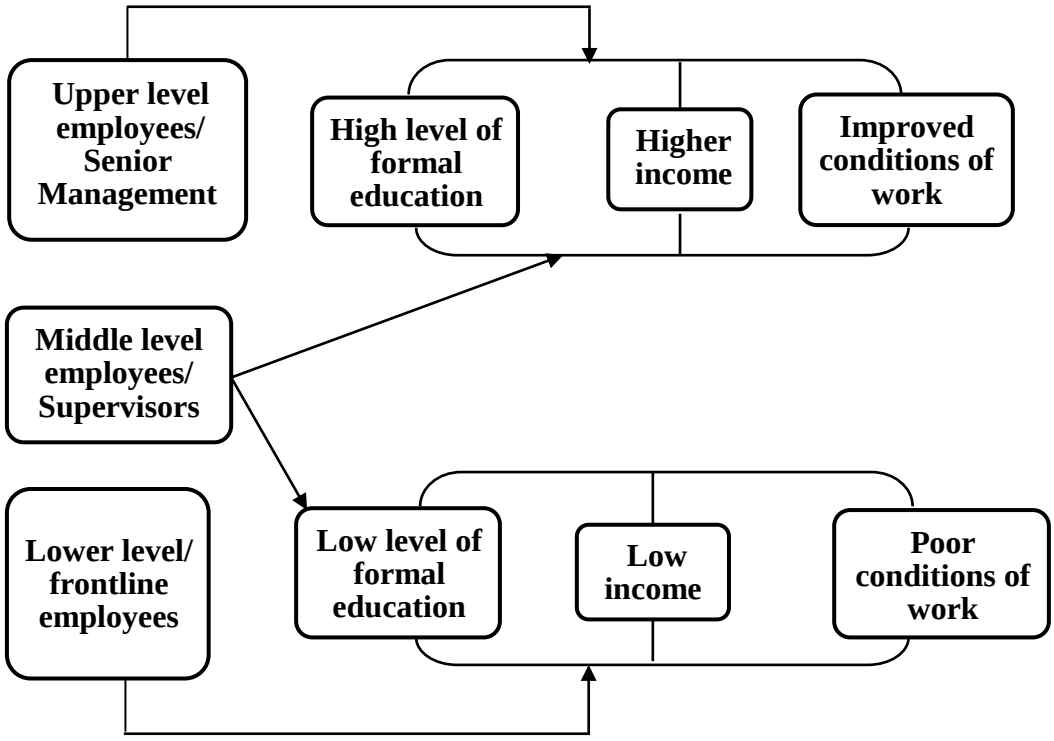

Figure 1: Sub-Optimal Allocation of Job Market Risk (Henderson, 1983)

The Compensating Wage Differentials Theory

The Compensating Wage Differentials (CWDs) theory developed by Adam Smith sought to explain the behaviour of job seekers relative to workplace safety (Smith, 1776). The CWDs theory argues that job seekers

holds personal beliefs and philosophies which influence their choice of work (Rosen, 1986). The theory is underpinned by factors such as risk-aversion (beliefs or philosophies of work) and formal education. Figure 2 provides details on variables underpinning the theory. The theory proceeds on the assumption that job seekers are faced with two main types of offers, jobs with relatively poor conditions (but with high-risk) and those with relatively better conditions of work (but with low-risk).

Adam Smith posits that a job seeker who is risk-averse would normally accept to work in organisation with better work conditions. Such job seekers hold personal beliefs and philosophies that prioritise personal health and safety over remunerations or wages (Pouliakas & Theodossiou, 2010). Thus, for the worker with high level of risk-averse, the value on their lives far outweighs any level of wages on offer. These individuals normally have high level of formal education, with relatively good social backgrounds (Marin & Psacharopoulos, 1982; Pouliakas & Theodossiou, 2010). The second category of workers, the less risk-averse would often accept job offers with relatively poor conditions of work (high-risk jobs). The theory explained that this type of job seekers hold personal beliefs and philosophies that prioritise wages or remuneration above personal health and safety. Therefore, for the less risk-averse, the value on their lives falls below the wages the job offers (Rosen, 1986). These characteristics determine the safety practices of the individual while on the job. For instance, Geest (2006) reported that regardless of the fear, mystery, and strong superstitions around “deathcare” work, more people, especially the youth, find such works attractive. Dumahasi (2020) also reported that many young people are now working at the mortuaries. Moreover, Botha et al. (2022) and Dartey et al. (2021) also reported that

deathcare workers are less risk-averse and often ignore safety precautions while at work.

Although the utility of the CWDs theory in predicting safety behaviour change is established (Thaler & Rosen, 1976), some scholars were critical of its assumptions. The critics argue that while there exists a positive and statistically significant CWDs for some types of jobs, it is not significant for others (Sandy & Elliot, 2005; Siebert & Wei, 1994; Wei, 2007). It is further argued that in the real world, especially during periods of economic meltdown, there are very limited job opportunities for most job seekers (Biddle & Zarkin, 1988; Viscussi, 2004). Thus, most job seekers may really not have the privilege of choice and therefore, it is difficult to determine whether they are risk-averse. Though the CWDs theory has some shortfalls, its validity for the current study is intact, especially because it deals directly with work related risks. The theory was previously used (Dumahasi, 2020) to investigate the OHS conditions of mortuary workers and to also investigate the work conditions of mine workers (Kahneman & Tversky, 2000; 1979).

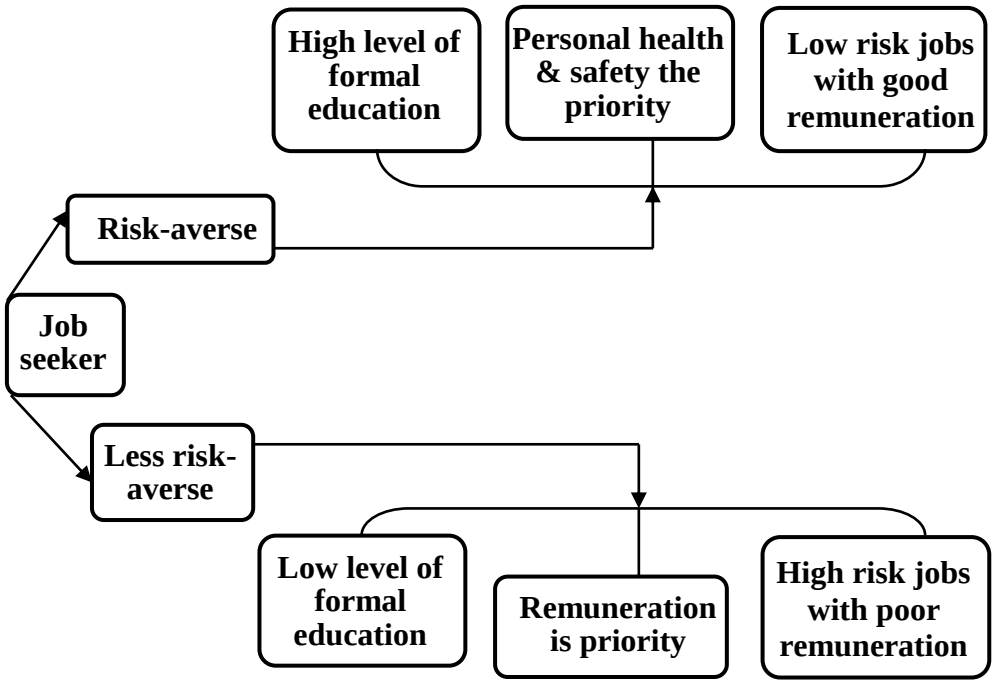

Figure 2: Compensating Wage Differentials Theory (Smith, 1776)

Health Belief Model

Health belief model (HBM) was developed in the mid-20th century by research social psychologists who was working at the U.S. Public Health Service to explain the preventive behaviour of individuals faced with serious public health conditions or problems (Maunder, 2021). The model became very popular in the 1950s and arguably the most applied theory in health literature (Adesina et al., 2021; Rosenstock, 1974; Rosenstock et al., 1988). The model is a product of a large body of empirical and theoretical research (Janevic & Connell, 2018; Maunder), and its efficacy in clarifying and predicting health promoting behaviour is firmly established in both research studies and meta-analyses (Carpenter, 2010; Janz & Becker, 1984).

HBM articulates six mutually inclusive constructs that explain health behaviour change of individuals (Janevic & Connell, 2018; Maunder, 2021). These include perceived susceptibility to a health event, perceived severity or seriousness, perceived benefits, perceived barriers, self-efficacy, and cues to

action (Maunder, 2021; Mirzaei et al., 2021; Syed et al., 2021). Figure 3 provides details of the variables that define the model. First, perceived susceptibility means the degree to which an individual or group of individuals feel exposed or vulnerable to the health challenge or hazard. This sense of susceptibility has the tendency to drive persons, including workers to adopt self-protective measures. That is, a deathcare worker would accept the need to adhere to safety precautions where he/she feels personally vulnerable or exposed to the disease or hazard (Carpenter, 2010; Janevic & Connell, 2018). Second, perceived severity or seriousness describes the degree of risk or complication the individual or group perceives from the exposure or hazard. Therefore, where the individual believes that the health consequences for not adhering to safety precautions could be hefty, he/she may readily adhere to the protective measures (Mirzaei et al., 2021; Syed et al., 2021). The perception of the severity or seriousness to a health condition may go beyond health concern to include the level of impact on ones' ability to work or travel. Third, perceived benefit describes the extent to which the individual believes that a preventive action or health behaviour change is effective to produce the desired expectations. For instance, if deathcare workers believe that adherence to on-site safety precautions and practices would provide adequate protection from short to long-term physiological and psychological health problems, then they may readily comply (Adesina et al., 2021; Janz & Becker, 1984).

The fourth construct is, perceived barriers, explains the suspected cost of adopting a new health behaviour or changing from an existing health compromising behaviour such as adhering to safety precautions at work. It is expected that the individual would analyse the potential loss of time, side effects, inconveniences, stigma, financial and many other costs involved in

attaining the perceived benefits. Where the barriers are believed to be easily surmountable and or fewer than the potential benefits, compliance or adherence is better than if the reverse were the case (Chen et al., 2021; Delshad Noghabi, Mohammadzadeh, Yoshany, & Javanbakht, 2021; Maunder, 2021). For instance, how does a deathcare worker observe the universal precautions at work when the hygiene facilities are woefully inadequate or non-functional? Such mortuary condition is even likely to compromise the self-efficacy of the worker to engage in self-protective behaviours.

Self-efficacy is the fifth component of the model. It denotes the level of personal motivation, drive, or confidence towards a course of action (Delshad Noghabi et al., 2021; Mirzaei et al., 2021). In other words, self-efficacy deals with the psychological readiness or preparedness and self-believe to adopt positive health behaviour or eradicate negative ones. Of course, self-efficacy depends largely on the individual's assessment of the other constructs, from perceived susceptibility to the barriers (Chen et al., 2021). The sixth and last construct, cues to action are the things that would trigger a positive change in health behaviour, including compliance to safety precautions (Syed et al., 2021). The triggers may, include but not limited to internal factors (disease symptoms and pain) and external factors (access to the right information, events, media campaigns on the issue, and health promotion activities) among others (Adesina et al., 2021; Syed et al., 2021).

It should be noted that the six constructs underpinning the model are interdependent and collectively determine the adoption of the positive health behaviour change or compliance to safety protocols. Though the efficacy of the model in foretelling preventive health behaviour is well grounded in evidence (Carpenter, 2010; Janz & Becker, 1984), the model fell short of some

other important factors that influence health behaviour change (Maunder, 2021). In Delshad Noghabi et al. (2021), gender was reported as a factor that influences the adoption of preventive health behaviour. Moreover, factors such as resources, training/orientation, monitoring and supervision, level of formal education, personal beliefs and experiences influencing preventive health behaviour in OHS (Botha et al., 2022; Dartey et al., 2022) have not been addressed by the HBM. Although the model has received significant application in the area of public health in Ghana (Ampofo, Adumatta, Awuviry-Newton, 2020; Nelson et al., 2021; Ofori, 2019; Yakubu et al., 2019), it seems not to be applied among deathcare workers.

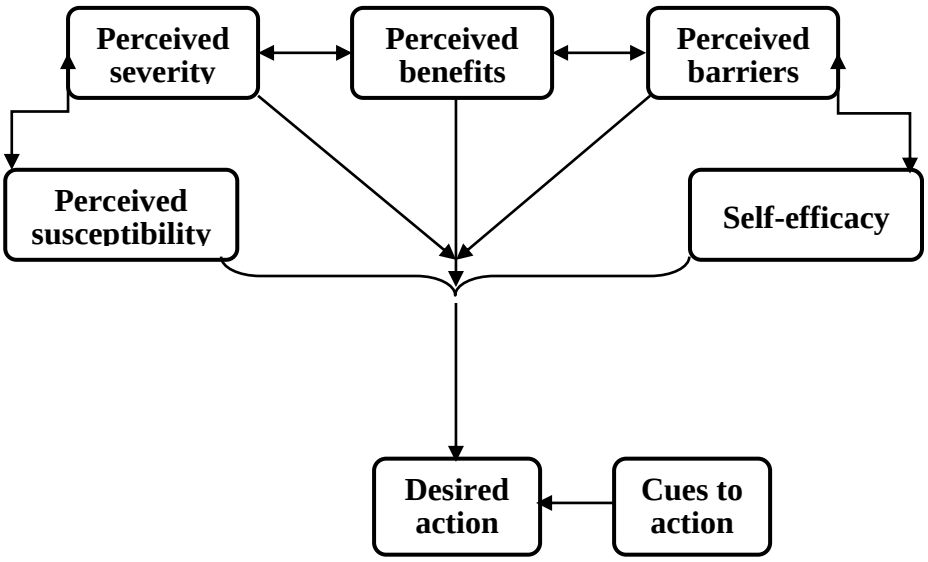

Figure 3: Health Belief Model (Chen et al., 2021)

Review of Relevant Concepts

This session discusses hazards associated with deathcare work, including physical and psychological hazards which account for the highest incidence of safety concerns in the industry (Molewa et al., 2021). The concept of physical hazards includes chemical, biological, and ergonomic hazards, while psychosocial hazards are heavy workload, physical work

environmental, poor remuneration, continuous exposure to death, and stigmatisation, among others (Molewa et al., 2021).

Physical hazards

In the context of this discussion, physical hazards include chemical, biological, and ergonomic hazards. There are empirical evidences that the work environment of deathcare workers is laden with multiple work-related physical hazards that pose significant threat to their physiological well-being (Akinyemi et al., 2021; CSTS, 2020; Gabbriellia et al., 2021; Overmeire & Bilsen, 2020; USG, 2020). For instance, Eziagu et al. (2022) and Molewa et al. (2021) reported common physical hazards associated with the work of deathcare workers, chemicals like formaldehyde, detergents, and fixatives. Others hazards include biological (body fluids and blood-borne elements), ergonomic hazards (work posture), workplace violence, noise, and temperature variations. Consistent with this, Ringane et al. (2019), argued that the true effects of these physical hazards on the health of deathcare workers is yet to be fully unravelled. Some of these include bone fracture, cancer, increased heart rate, myocardial infarction and heart disease, increased blood pressure, memory loss, lower cortisol secretion, musculoskeletal disorders, indigestion, hepatitis B, C, D, and G viruses, human immunodeficiency virus, tuberculosis, human T-cell lymphotropic virus, Creutzfelddt Jacob disease, small pox, hantavirus, herpes, and pulmonary syndrome (Akinyemi et al., 2021; CSTS, 2020; Gabbriellia et al., 2021; Overmeire & Bilsen, 2020; Ringane et al., 2019; USG, 2020).

Chemical hazards

Deathcare work involves the use of chemicals, mainly preservatives, during the embalming procedures and as disinfectants (Asare-Donkor et al.,

2020; Sugata et al., 2016; Waschke et al., 2019). The most common of these chemicals include formaldehyde, chlorine, and alcohol (USG, 2020). Chika (2021) and Waschke et al. (2019) reported that these chemicals find their way into the body of the workers through inhalation, mouth, and skin. Similarly, multiple sources (Akinyemi et al., 2021; O'Keeffe, 2021; Vidua et al., 2020), reported high exposure to formaldehyde and other chemicals among deathcare workers, who's exposure to these chemicals remains high because the workers fail to adhere to proper use of PPE most of the time. Similarly, Botha et al. (2022) reported that deathcare workers walk around the morgue barefooted and process dead bodies with bare hands. Unfortunately, chemical like formaldehyde is a carcinogenic and which is blacklisted in many countries, but remains the most commonly used preservative in the deathcare industry (O'Keeffe, 2021).

Biological hazards

According to O'Keeffe (2021) and Vidua et al. (2020), the nose, skin, mouth, and anus are the body orifices from which fluids and blood-borne elements could emerge of the dead body. Thus, it is recommended that these orifices be plugged while processing dead bodies. Similarly, Vidua et al. reported that SARS-CoV-2 could be active in sputum, faeces, and eye fluids of infected bodies so direct contact with such dead bodies must be avoided. Furthermore, Kumari (2021) reported that exposure to body fluids of dead bodies occurs mostly during the embalming procedure. Consistently, Akinyemi et al. (2021), Government of Canada (2020) and Ringane et al. (2019) reported incidences of body fluids and blood of the dead splashing into the face of deathcare workers. Coherent with this, O'Keeffe (2021) reported that poor handling of dead bodies, especially accidents victims, decomposed

bodies, large bodies, and bodies that have gone through autopsy can increase exposure of workers to body fluids including blood from the dead.

Ergonomic hazards

The job of deathcare workers involves so much physical activity (Douglas & Peterside, 2016). In most of these deathcare facilities, the workers lift and carry dead bodies, no matter how heavy, workers stand on their fit for long hours during embalmment. According to Pal and Patel (2021), the high incidence of ergonomic health issues reported among deathcare workers is consistent with the high level of physical activity. A study by Chika (2021) found that the deathcare work environment predisposes the workers to ergonomic health hazards. Similarly, Botha et al. (2022) and Dartey et al. (2021) found that deathcare facilities in the developing world lack the basic equipment and facilities to promote good work posture. Thus, a study by Botha et al. reported that poorly designed workstations, lack of equipment, poor monitoring and supervision, and inadequate number of personnel are some factors that increase the exposure of the workers to ergonomic hazards. Moreover, incidences of falls, slips, musculoskeletal disorders, and strain are higher among deathcare workers than other cadre of workers (Litana & Kapambwe, 2017; OSHA, 2014).

Psychosocial hazards

It is comparatively much easier to establish a correlation between a health problem and a noxious substance within the physical work environment (Gupta et al., 2018; Jood et al., 2017). However, it is pretty complicated establishing how psychosocial hazards emerge within the work environment (Breinegaard et al., 2017; Lunau, Wahrendorf, Müller, Wright, & Dragano, 2018; Rugulies, 2019), though many workers are faced with hazards while at

work. There is evidence (Guidetti et al., 2021; Mridula & Ganesh, 2016; Van Bortel et al., 2016) that deathcare workers are faced with complex psychosocial hazards at work, largely compromising mental well-being of the workers (Greenberg et al., 2020; Kisely et al., 2020). Accordingly, psychosocial hazards may appear subtle, but they are real and can have devastating effects on the health and work-life balance of the deathcare workers. Confirming this, Mridula and Ganesh (2016) and Van Bortel et al. (2016) reported that the triggers of psychosocial hazards among deathcare workers are yet to be fully unravelled. Besides, other factors that predict poor psychosocial health include heavy workload, poor physical work environment, poor remuneration, lack of carrier progression, continuous exposure to dead bodies, and stigmatisation (Guidetti et al., 2021; Gupta et al., 2018; Jood et al., 2017).

Heavy workload

Heavy workload is widely reported as a major stressor prevalent among deathcare workers (Guidetti et al., 2021; Mridula & Ganesh, 2016; Pal & Patel, 2021; WHO/ILO, 2021). Kisely et al. (2020) and USG (2020) identified the ever-increasing number of dead bodies against the inadequate number of deathcare workers, a situation compromising the already high workload among these workers. The high spate of road traffic accidents, flooding/hurricanes, earthquakes, rise in epidemics/pandemics (Ebola, COVID-19, Lassa, and Dengue), and conflicts are also accounting for the high rate of mortality globally (Bertuccio & Runion, 2020; Durand-Moreau & Galarneau, 2021), which is increasing the number of dead bodies to the mortuaries.

Increased mortality means more work for the deathcare worker. Kisely et al. (2020) and USG (2020) reported that deaths due to the global SARS-CoV-2 pandemic complicated the workload of deathcare workers, which became a significant stressor among the workers during the period. Similarly, Mridula and Ganesh (2016), Pal and Patel (2021), and WHO/ILO (2021) found that deathcare workers suffer from decreased alertness, coordination, impaired cognition, and emotional blunt or mood changes due to long working hours. Affirming this, Durand-Moreau and Galarneau (2021) reported that increased workload and work time without enough rest can lead to loss of concentration among workers.

Poor physical work environment

Globally, deathcare work is perceived as dirty, unpleasant, which induces a sense of repugnance and rejection (USG, 2020). The link between poor physical work environment and psychosocial health among deathcare workers is firmly established (Botha et al., 2022; Dartey et al., 2021; Guidetti et al., 2021). Generally, the design and physical work environment including availability of water, furniture, flooring, and odour within the deathcare facilities are deplorable. Evidence by Agyapa (2022), Douglas and Peterside (2016) and Guidetti et al. (2021) revealed that physical work environment of the deathcare facilities in Africa, and other developing world in general, very dehumanising. These facilities are described as maggot infested and not fit for purpose. For example, Botha et al. (2022), Levkovich and Shinan-Altman (2021), and USG (2020) attributed the high prevalence of alcoholism and drug abuse among deathcare workers to the poor state of their physical work environment. Additionally, Mridula and Ganesh (2016), Trabelsi (2021), and

USG (2020) reported that most deathcare workers could not cope with work in the morgue unless they drank alcohol.

Poor remuneration

There is strong evidence (Breinegaard et al., 2017; Jood et al., 2017; Madsen et al., 2016) that poor remuneration is a common stressor among middle and low-level workers. According to Litana and Kapambwe (2017), Mittal and Wakschlag (2017), Nyaberi et al. (2014), and Tandelilin et al. (2018), deathcare workers are among the least paid HcWs in Africa. Similarly, several studies (Adamu & Lawani, 2018; Botha et al., 2022; Mridula & Ganesh, 2016; Yardley et al., 2018) found that the conditions of service of deathcare workers in Africa are poor and very demotivating. Affirming this, Adamu and Lawani, and Litana and Kapambwe, reported that a good number of deathcare workers in Africa are casual staff and do not enjoy the benefits that accrue to permanent personnel. Moreover, Levkovich and Shinan-Altman (2021), USG (2020), and WHO and ILO (2021) reported a strong positive correlation between poor remuneration and alcoholism among deathcare workers in Africa. Consistent with this, Ahn et al. (2020), Kim et al. (2020), and Kim, Ki, Choi, and Song (2019) reported an association between poor work remuneration and suicide ideation among low-level staff in Africa.

Continuous exposure to death

Deathcare facilities represent death and the workers are considered the custodians (USG, 2020; Guidetti et al., 2021; Vidua et al., 2020). Several studies (CSTS, 2020; Colombo, Emanuel, & Zito, 2019; Cotrim et al., 2020; Dartey et al., 2021; Durand-Moreau & Galarneau, 2021; USG) have reported that the continuous exposure to death increases the stress levels and anxiety of deathcare workers. Thus, deathcare workers reported symptoms of depression

and loneliness as the deal with dead bodies on daily basis. Affirming this, Guidetti et al., Kisely et al. (2020), Makhubela (2018), and Mridula and Ganesh (2016), found that deathcare workers experience long term depression as they deal with dead bodies and related noxious substances.

Consistent with this, Durand-Moreau and Galarneau, Greenberg et al. (2020), Guidetti et al. (2021), Kisely et al. (2020), and Makhubela (2018) found that multiple stressors are triggered as deathcare workers handle some specific types of dead bodies. This typically includes accident cases where the body is severely compromised, either without some essential body parts, decomposing bodies, infants, and pregnant women. Similarly, USG (2020) found that some specific body parts of the dead, such as the fingers and toes, can trigger lasting feelings of sadness among deathcare workers. It is thus recommended that these body parts be covered while working on the dead body.

Stigmatisation

Studies (Chika, 2021; Mridula & Ganesh, 2016; Suwalowska et al., 2021) showed that deathcare workers and their families suffer stigmatisation from the public due to the work they do. Affirming this, Guidetti et al. (2021) and ILO (2020c) found that members of the public perceive deathcare workers as people who are profiting from the death of other. They are perceived as being insensitive and should not be entertained by the general population. Consistent with this, Chika, and Mridula and Ganesh found that deathcare workers report the highest incidence of isolation and stigmatisation. Similarly, Botha et al. (2022) reported that deathcare workers suffer abuse and discrimination from other healthcare workers within the hospital and also from the general public. Many wonder if they (deathcare workers) really had a

social life, given their close association with death all the time. Upholding this, USG (2020) argue that the use of drugs and alcoholism reported among deathcare workers could be partly due to isolation and discrimination suffered from the general public. That is, they are rejected by society on account of their job.

Increasing temperature and work schedules

Increasing temperatures (NFWM, 2021; Pal & Patel, 2021; Smith, 2019) are influencing work capabilities and productivity of workers globally. According to de Lima et al. (2021), Kim et al. (2019), and Kjellstrom (2016), increasing ambient heat and humidity are compelling workers to embrace more favourable working schedules as effective mitigation strategies. Meanwhile, the ILO's decent work for all agenda (ILO, 2020b), the MoH's IPC and OHS policy guidelines and Ghana's Labour Law provide that work should be done under conditions that uphold freedom, efficiency, and human dignity. Moreover, while the phenomenon seems to be lacking in literature on deathcare workers, studies by de Lima et al. in Africa and Frimpong et al. (2020) in Ghana found that farmers were rearranging and adopting more favourable work schedules due to increasing heat. Other studies that reported similar findings, including Pal and Patel whose study was global, Smith covered the United States of America, Pogačar et al. (2017) in Slovenia, and Spencer et al. (2022) in Gambia.

Many other studies (Grayson & Oza, 2023; Guenel & Leger, 2023; Silva & Costa, 2023), futher suggested that while such changes in work schedule maybe effective heat mitigation strategy adopted by workers, their natural biological rhythms could be disturbed with potential risk of digestive and psychological disorders. According to Guenel and Leger, the human body

has been naturally set on a-24hr path that allows for adequate rest around a certain period. Therefore, as employees are working at a time they should be resting, the natural biological rhythms of their bodies will be disoriented, depriving their bodies of sufficient rest, which could trigger exhaustion and burnout, indigestion, stress, lower cortisol secretion, and increased blood pressure and heart rate. Thus, if not properly managed, this could lead to short-to-long-term adverse health consequences to the deathcare workers (Guenel & Leger, 2023). Therefore, employers have a responsibility to institute measures (such as fixing air conditioners and also improving ventilation) to help mitigate effects of increasing temperature on the workers and allow work to be done during the normal schedule.

Informal workers

International labour regulations (ILO, 2020b; ILO, 2022; ILO, 2020d; ILO, 2019a) provide for the full protection of all working people, regardless of the nature of their recruitment. Therefore, there are moral and legal obligations on managers to ensure that all workers are properly recruited and their activities are officially sanctioned (ILO, 2020b; ILO, 2022). Meanwhile, there is a global surge in the number of unauthorised volunteer workers (Barrett & Sargeant, 2016; Bretones, 2020; Henslin, 2023; Sherratt, Crapper, Foster-Smith, & Walsh, 2015). Similarly, the deathcare industry in Africa is replete with volunteer workers whose operations are not sanctioned by the deathcare facility managers (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Litana & Kapambwe; 2017). These workers have become an integral part of the deathcare industry in Africa and fall into three different categories (Douglas & Peterside, 2016; Litana & Kapambwe, 2017). This includes persons employed as cleaners or scavengers and working at various departments of the hospital,

but who are later deployed to the morgue as punishment for offenses committed. Second are persons employed as cleaners or scavengers who work at various departments of the hospital, but who on their own volition assist at the morgue. The third group are persons from within the community and who are not staff of the hospital, but have decided to learn mortuary work. These persons (the second and third groups) are known in the deathcare industry as "helpers".

Meanwhile, Adamu and Lawani (2018) and Litana and Kapambwe (2017) argued that the operations of these mortuary attendants present obvious health and safety challenges to themselves and others working within the morgue. The attendants that were deployed to the morgue as punishment may feel disrespected, and discriminated against. The argument is that, managers are supposed to be promoting and protecting the best interest of their workers and should not be acting in ways that label deathcare work as a punishment. According to Douglas and Peterside (2016), this can create a sense of mistrust and loss of confidence in the managers by the workers. Moreover, Adamu and Lawani and Litana and Kapambwe suggested that these workers (second and third groups) usually ignore caution as they try to impress the senior mortuary attendants and demonstrate that they were not afraid of the job. As a result, these workers become highly exposed to various hazards as they undertake tasks without observing standard precaution.

Review of Related Literature

The scope of this review will include awareness and knowledge, level of formal education, and perception/belief/philosophy, adequacy of resources, facilities, workload, training/orientation, monitoring and supervision, and medical screening and how they relate to the work of the deathcare workers

(Dartey et al., 2021; O'Keeffe, 2021; Ringane et al., 2019; Sugata et al., 2016; Syed et al., 2021; Vidua et al., 2020; WHO, 2021b). Individually, each of these concepts could influence positively the behaviour change of the workers, yet they are interdependent of each other in producing the desired safety outcome (Adesina et al., 2021; Delshad Noghabi et al., 2021; Maunder, 2021; Mirzaei et al., 2021).

Awareness and knowledge/self-efficacy

Several sources reported the association between awareness and knowledge and positive health behaviour change (Botha et al., 2022; Donkor, 2012; Esaah, 2023; Ibrahim, 2018; Nyoh, 2015). The first step to risk prevention and safety practice is for the individual to become aware and also possess the requisite knowledgeable about the hazards prevailing in the work itself and those in the work environment (Esaah, 2023). Additionally, the individual must be well aware and knowledgeable about the preventive measures and safety practices required in dealing with the hazards. Therefore, awareness and knowledge are at the heart of all efforts towards improving adherence to safety at work (Esaah, 2023). All things being equal, when the individual is aware and knowledgeable about health hazards and the safety practices to adopt, adherence to safety precautions becomes easier and most likely.

Consistent with this assumption, Donkor (2012) and Nyoh (2015) reported high awareness and knowledge and satisfactory levels of adherence to safety practices among deathcare workers. Contrary to this, there could be instances where awareness and knowledge may be high yet safety practices will be unsatisfactory. For instance, Akabanda et al. (2017), Esaah (2023), Moreaux, Adongo, Mensah, and Amuquandoh (2018), and Onyango, Kieti,

and Mapelu (2016) reported high awareness and knowledge about workplace hazards yet found unsatisfactory levels of adherence to safety practices among the respondents. Such a gap between awareness and knowledge and adherence to safety practices could be that other factors, rather than awareness and knowledge, are having a greater influence over safety practices, hence the negative outcome.

Generally, unsatisfactory levels of awareness and knowledge will return negative outcomes (Nana-Otoo, 2016). Coherent with this, Ibrahim (2018), Nana-Otoo (2016), and Zwilling, Lesjak, Phusavat & Anussornnitisarn (2019) revealed inadequate awareness and knowledge about workplace hazards and safety precautions required. Moreover, the studies revealed poor adherence to safety practices among the respondents. Evident from all the above sources, awareness and knowledge are major determinant factors in the level of adherence to safety practices among workers. Therefore, awareness and knowledge are relevant indicators to adherence to safety practices among deathcare workers.

Formal education

Another factor widely reported to have influence on adherence to safety practices among workers is formal education (Appietu & Amuquandoh, 2017; Farahat, Mona, El-Shafie, & Waly, 2015; Wafa, Priyadarshini, & Jaiswal, 2018). By quality assurance standards, every worker is expected to possess some basic professional qualification acquired through formal training that commensurate with the job function (Adamu & Lawani, 2018). All things being equal, an employee with the requisite formal training in an area of work would have a better level of awareness and knowledge, and most likely adhere to safety practices (Douglas & Peterside, 2016). This is consistent with Health

and Safety Executive (HSE) (2018) that recommended that organisations set standards for recruiting workers (HSE).

For instance, Adamu and Lawani (2018), Botha et al. (2022), Douglas & Peterside (2016), and Nyaberi (2014) revealed that most deathcare workers in Africa are not formally educated, and there are no clear standards for recruiting them (Mwangi, 2019). As a result, majority of the deathcare workers in Africa fail to practice the universal safety precautions required in their work (Douglas & Peterside, 2016). However, the impact of level of formal education on adherence to safety practices is not absolute (El-Sokkary et al., 2021). Inconsistent with previous studies reporting strong association between level of formal education and adherence to safety, one study (Esaah, 2023) found no significant link. For instance, El-Sokkary et al. (2021), Esaah (2023), and Neuwirth, Mattner, and Otchwemah (2020) reported inadequate adherence to personal safety practices among medical officers, nurses, and other HcWs.

A number of factors could account for this situation including inadequate resources, poor monitoring and supervision, inadequate in-service training, personal beliefs and philosophies (Neuwirth et al., 2020). Therefore, the study reaffirms the interdependence of all the factors that influence adherence to safety practices among workers (HSE, 2018). That is, formal education or professional training alone is not enough to produce proper adherence to safety practices.

Perceptions, belief/philosophy of work

There is enough empirical and anecdotal evidence attesting to the impact of personal beliefs/philosophy and perceptions to worker-performance (Delshad Noghabi et al., 2021; Mirzaei et al., 2021). These are personal

principles, traits, values, and or views acquired or developed through religion, culture, training, education, and personal experiences and held over a period of time (Adesina et al., 2021; Janz & Becker, 1984). There is a strongly attachment to these guiding principles such that they define virtually every course of action or inaction in an individual's life. For instance, a worker with a strong regard for personal safety (risks-averse), would most readily embrace healthy work ethics and practices than one who has less regard for personal safety [less risk averse] (Sandy & Elliot, 2005; Wei, 2007).

Consistent with this, it was found (Mirzaei et al., 2021; Syed et al., 2021) that some individuals hold personal beliefs/philosophies that cover almost every aspect of life, from diet, relationship, education, traveling, work, and many more. Several studies found strong evidence of a positive relationship between personal belief/philosophy and employee performance (Adesina et al., 2021; Delshad Noghabi et al., 2021). Thus, workers were found to hold beliefs/philosophies that promote the adoption of a positive health behaviour change. Coherent with this finding, it was reported that deathcare workers considered their work a cultural and religious duty to take good care of dead bodies, as it was an ultimate eventuality for all human beings (Ringane et al., 2019; Sugata et al., 2016; Vidua et al., 2020).

Regardless of how difficult their work was, deathcare workers were motivated by cultural and religious beliefs to treat the dead with dignity and special care. Contrary to these findings, Adamu and Lawani (2018), Botha et al. (2022), and Dartey et al. (2021) found that regardless of the evidence showing the prevalence of hazards in the work of deathcare workers, these workers believed they were immune. In fact, they believed that the dead were just like one of them (deathcare workers) and thus posed no threat to their

health. Similarly, multiple sources (Botha et al., 2022; Dartey et al., 2021; O'Keeffe, 2021; Ringane et al., 2019; Sugata et al., 2016) found that deathcare workers perceive themselves as invincible and actually immune to the biological and chemical hazards associated with the management of dead bodies. Though, there is inadequate supply of PPE to deathcare workers, they fail to use even the few PPE that are available.

Moreover, because some of the diseases (cancer) associated with deathcare work take years to present, the deathcare workers tend to hold the falls belief that dead bodies posed no serious threat to their health (Adamu & Lawani, 2018). Therefore, given the strong impact of personal beliefs/philosophies on adherence to safety precautions at work, organisations must endeavour effective orientation for all new recruits, intensify in-service training, and monitoring and supervision. Moreover, there must be regular and adequate supply of PPE and other cleaning materials to workers (deathcare workers) (Esaah, 2023, HSE, 2018).

Resources/logistics

There is strong consensus among organisational management and public health experts about the importance of resources/logistics to the health and growth of all organisations (Aniteye & Mayhew, 2013; Perna, 2021). Resources/logistics here include the personnel, cleaning materials or detergents, PPE, water, hand sanitizers, soap, hand towels, etc. The significance of resources/logistics to adherence to safety practices by workers is widely reported (Hupe 2019; Perna, 2021; Tummers, Bekkers, Vink, & Musheno, 2015). Of all the factors that influence adherence to safety practice among workers, resources/logistics are arguably the most significant (Hupe, 2019; Perna, 2021). Typically, where resources are available and adequate,

workers are most likely to adhere to safety practices, while the reverse may be true where the resources are lacking or inadequate (Aniteye & Mayhew, 2013).

Consistent with this, Adamu and Lawani (2018), Dartey et al. (2021), and O'Keeffe (2021) implicated inadequate resources for the poor safety practices among deathcare workers. Similarly, Botha et al. (2022), Douglas and Peterside (2016), and Nyaberi (2014) found that inadequate number of deathcare workers and shortage of PPE contributed to the poor safety practices among deathcare workers. Moreover, Environmental Health Officers in Ghana refused to burry SARS-CoV-2 decedents due to lack of PPE and other logistics. Clearly, the lack of or inadequate resources/logistics increases the level of exposure to workplace hazards (HSE, 2018). On the contrary, Ringane et al. (2019) reported that deathcare workers failed to use PPE even when they were available. Echoing this, Neuwirth et al. (2020) found that clinicians failed to adhere to the universal precautions even when the resources were available.

Furthermore, Hupe (2019) reported that frontline workers fail in meeting key objectives of public policies due to inadequate resources. As a result of inadequate resources and personnel, deathcare workers adopt personal discretion in the application of safety policy guidelines while dealing with decedents (Tummers et al., 2015). From the literature, though resources are germane in keeping with safety standards at work, there is a need to also organize regular in-service training on PPE use in specific, and IPC in general (HSE, 2018). Moreover, supervisors must also intensify monitoring and supervision, in addition to availability of functional hygiene facilities to aid IPC compliance.

Facilities/equipment

Facilities/equipment are very essential in building effective OHS systems for HcWs (HSE, 2018). These include bathrooms, toilet facilities, adequate number of hand washing facilities, elevators for lifting dead bodies, stand-by generators, scent/odour extractors, rest rooms, etc. Though they are essentially part of the general pool of resources required for effective work, here they are considered separately for emphasis (Esaah, 2023). As far as the work of deathcare workers is concerned, these facilities/equipment are very important in dealing with biological and physical hazards associated with the deathcare industry.

All things being equal, where there are adequate and functional facilities/equipment, compliance to safety standards is easier and better (Hupe 2019; Perna, 2021). However, where they are lacking, inadequate, or non-functional, adherence to safety standards among deathcare workers is likely to be difficult and poor. Confirming the contributions of these facilities to adherence to safety standards, Aniteye and Mayhew (2013) and Perna posit that adequate and functional equipment are a must to mitigating workplace hazards. For instance, true to this position, elevators, body bags, and spraying machines were identified (Vidua et al., 2020; WHO, 2021b) as equipment needed for the safe disposal of SARS-CoV-2 decedents.

Confirming this further, Mwangi (2019) explained that work of deathcare workers could be seriously undermined when facilities/equipment are non-functional or lacking. These workers need adequate and functional hand hygiene facilities to promote IPC adherence (Dartey et al., 2021). Anything short of this could seriously expose the workers to biological hazards. In contrast, Adamu and Lawani (2018) and O'Keeffe (2021) found

that deathcare workers were not leveraging available facilities to improve IPC adherence in the morgue. Confirming this, Neuwirth et al. (2020) suggested that the availability and functionality of these facilities and equipment alone may not guarantee adherence but their proper utilisation also matters.

Workload

Workload is an important variable that influences adherence to safety procedures among employees (Loibner et al., 2019; Steyrer, Schiffinger, Huber, Valentin & Strunk, 2013; USG, 2020). Multiple sources have established a strong association between workload and compliance to safety procedures among workers (ECDC, 2020; Mendes et al., 2019). Affirming this position, Adamu and Lawani (2018), Douglas and Peterside (2016), Nyaberi (2014), and O'Keeffe (2021) reported that heavy workload and employee burnout contributed to poor adherence to safety procedures by deathcare workers. It was found that deathcare workers were inadequate to effectively and efficiently undertake their duties. Consistent with this, Loibner et al. implicated heavy workload and employee burnout for the non-adherence to safety procedures among workers.

Typically, increased workload, work time and work organisation with insufficient rest-time for recuperation may lead to persistent fatigue, diminished vigilance and concentration, and efficiency (ECDC, 2020; USG, 2020). That is, heavy workload precipitates burnout and further leads to loss of concentration among workers (Loibner et al., 2019). Upholding these findings, Botha et al. (2022) reported high incidence of heavy workload and burnout among deathcare workers, explaining the poor state of safety practices found among these employees. Smith (2019) argued that the body generates more heat during heavy work and could easily lead to burnout. Smith posits that

when there is heavy workload coupled with high temperatures and insufficient rest time, PPE use among workers will be poor. Thus, there is an association between heavy workload and adherence to correct PPE use among workers. Reinforcing this point, Mendes et al. (2019) argued that holding other variables constant, when workload is heavy, adherence to safety by workers will be poor, while the reverse will be true when workload is low. Thus, an inverse relationship exists between heavy workload and adherence to safety procedures by employee.

Training/orientation

Several studies identified training/orientation as strong factors that influence adherence to safety procedures among employees (Akinyemi et al., 2021; Kumari & Kapur, 2018; Malik & Kamran, 2020; Pal & Patel, 2021). Normally, newly recruited workers are expected to go through planned orientation which should introduce them to the nature of job and specific tasks. This could take weeks or months depending on the policy of the organisation, scope and content, and job and specific task (Pal & Patel, 2021). After the employee is fully immersed and stable on the job, there will be need for in-service training. Malik and Kamran argued that the purpose of in-service training is to keep the employee abreast of current practices about job and specific task. Over time, workers acquire attitudes and practices which are inconsistent with standard practices and these could be corrected through in-service training. Upholding this, Esaah (2023), Segbedzi and Ansah (2022) reported inadequate adherence to safety practices among workers due to lack of training. It was found that employees worked for years without going through a single training on their job and specific tasks.

Consistent with these studies, Chika (2021), Mridula and Ganesh (2016), and Molewa et al. (2021) implicated lack of training for the poor safety practices among deathcare workers. Deathcare workers were found to handle decedents at the morgue without adequate PPE, not even hand gloves, to protect them. Affirming this finding, Adamu and Lawani (2018), Botha et al. (2022), Douglas and Peterside (2016), Nyaberi (2014), and O'Keeffe (2021) found that safety practices among deathcare workers were unacceptable and inconsistent with the universal precautions. The findings showed that these deathcare workers were not provided training in IPC. According Botha et al. (2022), instead of planned training/orientation, newly recruited deathcare workers merely observe and practice what their senior colleagues do. As a result, there is transfer of attitudes and practices which are inconsistent with the universal safety precautions from the seniors to the newly engaged deathcare workers.

Monitoring and supervision

Health and safety systems of organisations can be effective and efficient only with a robust monitoring and supervision infrastructure in place (HSE, 2018). Employees may be adequately trained and oriented on their jobs and specific tasks, possess safety-supportive personal attributes, risk averse, and provided with everything needed for effective and efficient work. However, these may still not translate into proper adherence to safety practices without a robust monitoring and supervision system (Moreaux et al., 2018, Seidu, 2020). A study by Yardley et al. (2018) suggested that while adequate conditions were in place for efficient and effective work, the respondents failed to adhere to safety practices. The study attributed the poor safety practice among the workers to poor monitoring and supervision.

Validating this, Adamu and Lawani (2018), Botha et al. (2022), Douglas & Peterside (2016), Mwangi (2019), and Nyaberi (2014) reported poor safety practices among deathcare workers in Africa and implicated ineffective monitoring and supervision as a major factor. Several studies Ababio and Lovat (2015), Esaah (2023), Moreaux et al. (2018), Mridula and Ganesh (2016), Seidu (2020), and Yardley et al. (2018) underscored the strong association between monitoring and supervision and adherences to safety practices by workers. It is argued that generally, workers do what is supervised (Esaah), therefore aside from providing all the resources needed to engender high productivity, employers must also setup strong monitoring and supervision teams and systems (ILO, 2020a; 2020b; 2020c). For instance, Esaah (2023) found that though the respondents had high levels of formal education, this did not reflect in their safety practices because of lack of monitoring and supervision. Consistent with this, multiples sources (Litana & Kapambwe, 2017; Mittal & Wakschlag, 2017; Mridula & Ganesh, 2016; Yardley et al., 2018) implicated lack/weak monitoring and supervision systems for poor safety practices among deathcare workers. In fact, the need for a strong monitoring and supervision systems is apparent due to the low level of formal education reported among deathcare workers (Botha et al., 2022; HSE, 2018).

Medical screening/examination

Typically, medical screening/examination is conducted for potential employees to determine their fitness for the job and specific tasks being considered for (Al-Kandari et al., 2019; Hamed & Mohammed, 2020). Whereas most employers may be interested in confirming existing health conditions of potential employees, medical screening/examination is useful in

predicting the development of future health conditions. Aside the importance of pre-deployment medical examinations to the employer, post-deployment (routine) medical screenings for employees are equally necessary and all OHS coordinators should pay particular attention to this (Kumar, Dudeja, Maurya, & Singh, 2019). A study by Esaah (2023) reported that managers failed to conduct pre- and post-deployment medical screening for employees. It was found that most employers ignored this important obligation and deploy employees without knowing their health conditions.

Validating this, Adamu and Lawani (2018), Botha et al. (2022), Douglas and Peterside (2016), and Nyaberi (2014) found that deathcare workers were employed and deployed without going through comprehensive pre- and post-deployment medical screening. It was found that apart from "hepatitis B" screening which was done in fulfilment of peer review requirements, deathcare workers worked for years without going through a single comprehensive medical screening. Douglas and Peterside implicated management for failing to act after it was informed that deathcare workers were exposed to dangerous hazards. In contrast to this finding, Litana and Kapambwe (2017) found that deathcare workers were provided with pre- and post-deployment medical screening. In agreement with this, Kumar et al. (2019) and Seidu (2020) reported that respondents were provided with regular medical screening. Standard medical screening for employees, be it pre- or post-deployment, must target the job and specific tasks of each individual (Dumahasi, 2020). Apart from its direct importance to health and safety, medical examination is positively correlated to productivity (Kumar et al., 2019).

On-site safety practices

The essence of OHS is to guarantee full protection for all workers from physical, chemical, biological, and psychological hazards/stressors present within the work environment (ILO, 2020d; 2019; WHO, 2018). In furtherance of this, employers are charged to provide a work environment that does not only promote and protect the health and well-being of the employee, but indeed, guarantees an optimum work-life balance (ILO, 2020e; 2019). To this end, employees are also expected to take personal responsibility by adopting healthy work practices that mitigate the impact of workplace hazards/stressors (ILO, 2019a; WHO, 2018). The work environment of deathcare workers is replete with all forms of hazards, including physical, chemical, biological, and psychological.

It is therefore expected that they (deathcare workers) observe positive safety practices during work. However, there is abundant evidence (Adamu & Lawani, 2018; Akinyemi et al., 2021; Botha et al., 2022; Kaledzi, 2020; Mridula & Ganesh, 2016) reporting poor on-site safety practices among these workers. Multiple sources (Aljerian & BaHammam, 2020; Dijkhuizen, Gelderman, & Duijst, 2020; ILO, 2020c; Eziagu et al., 2022; James et al., 2015; Malik & Kamran, 2020; Yardley et al., 2018) identified hand hygiene, personal hygiene, use of PPEs, and working posture as areas that most expose the poor on-site practices of deathcare workers.

Hand hygiene practices

Consistent with the IPC protocols and the universal precautions, deathcare workers are required to wash their hands regularly during the course of work (Eziagu et al., 2022; James et al., 2015). Doing so will significantly break the chain of spread of infection while handling the dead bodies and

chemicals. However, deathcare workers are reported to have failed in washing their hands regularly during work (Adamu & Lawani, 2018; Nyaberi, 2014). Poor hand hygiene practice has been found to be particularly common among deathcare workers in Africa (Adamu & Lawani, 2018; Botha et al., 2022; Nyaberi, 2014). Botha et al. (2022), Douglas and Peterside (2016), and Litana and Kapambwe (2017) attributed the situation to inadequate hand hygiene facilities, non-functional sinks, irregular water supply, weak monitoring and supervision, inadequate training on proper hand washing, and feeling invincible or immune from harm.

Similarly, Botha et al. (2022), Nyaberi (2014) found that deathcare facilities in Ghana and Kenya lack adequate supply of water. Thus, deathcare workers handle dead bodies and chemicals without washing hands regularly. As reported by Botha et al. (2022), after a while, the poor hand hygiene practices of the deathcare workers develop into a sub-culture and copied by new recruits.

Personal hygiene practices

Bathing is a basic requirement in personal hygiene which helps cleanse the body of chemicals, dust, sweat, blood spills and other fluids, infections, and other elements picked-up from the work environment (Aljerian & BaHammam, 2020; Dijkhuizen et al., 2020; HAS, 2020; ILO, 2020a; Kichloo et al., 2021; Loibner et al., 2019; Malik & Kamran, 2020; Ringane et al., 2019). Typically, the work of deathcare workers requires of them to bath right after close of work or following a major episode of exposure, before going home (Douglas & Peterside, 2016; Litana & Kapambwe, 2017). Apart from its primary role in IPC, bathing helps eliminate body odour and improves psychological state of the worker (ILO, 2020c; Kichloo et al.; Loibner et al.;

Malik & Kamran; Ringane et al.). Inconsistent with this, studies (Adamu & Lawani, 2018; Botha et al., 2022; Douglas & Peterside, 2016; Litana & Kapambwe, 2017) revealed that deathcare workers in Africa fail to to bathe after working on dead bodies and handling chemicals. Similarly, Adamu and Lawani (2018) and Botha et al. (2022) reported that morgues in Africa lacked facilities for bathing.

Thus, deathcare workers are regularly exposed to emissions from dead bodies and chemicals but have no opportunity to bath at work. Adamu & Lawani (2018), Botha et al. (2022), Douglas and Peterside (2016), and Litana and Kapambwe (2017) reported lack of facilities for bathing, inadequate training in IPC and personal hygiene, lack of monitoring and supervision, and feelings of immunity against diseases among deathcare workers. Therefore, personal hygiene practice among deathcare workers in Africa is reported to be generally poor.

Work posture

The work of deathcare workers involves a lot of physical activity and can be really wearing on a very busy day (Botha et al., 2022; Oregon OSHA, 2014). Incidence of arm, back, waist, and neck pain secondary to physical strain is high among deathcare workers. Moreover, lifting dead bodies, standing for long hours while working on dead bodies, removing frozen bodies from cabinets, and moving dead bodies with trolleys can all trigger injury when the wrong posture is adopted. Douglas and Peterside (2016) reported that deathcare workers assumed various body postures when processing dead bodies, some of which lead to serious musculoskeletal disorders. Similarly, Adamu and Lawani (2018) found that generally, deathcare workers do not apply the right work posture when processing dead bodies.

A number of factors predict this attitude of deathcare workers to poor work posture including workload, poor supervision, lack of or inadequate training in work posture, and wrong personal attitudes to work posture (Botha et al., 2022). Confirming this, a study by Litana and Kapambwe (2017) that compared the prevalence of musculoskeletal disorders among deathcare workers found that deathcare workers reported higher incidence than other cadre of HcWs. Given the vulnerabilities of deathcare workers to adverse work events related to bad posture, monitoring and supervision of their practices and training in work posture must be regular and intensive (Botha et al., 2022).

Personal Protective Equipment Use

The importance of PPE to the deathcare work is widely reported (Akinyemi et al., 2021; Mridula & Ganesh, 2016; Ringane et al., 2019). Adamu and Lawani (2018), Botha et al. (2022), Dartey et al. (2021), Douglas and Peterside (2016), and Litana & Kapambwe, 2017 reported that deathcare workers fail in adhering to proper use of PPE during work. Meanwhile, O'Keeffe (2021), Ringane et al., Sugata et al. (2016), and Vidua et al. (2020) argued that proper use of PPE is an effective barrier to the exposure and transmission of deathcare-based infections and chemicals. Moreover, deathcare workers are regularly exposed to blood and body fluids of dead bodies and also use dangerous chemicals. Therefore, their exposure to PPE-preventable diseases at work is very high (Dartey et al., 2021; Douglas & Peterside, 2016; Litana and Kapambwe, 2017).

While the evidence (Adamu & Lawani, 2018; Botha et al., 2022; Nyaberi et al., 2014) reported non-adherence to PPE use among deathcare workers, a number of predictors are implicated in this attitude. Adamu and

Lawani, Agbobli (2020), Botha et al., Kaledzi (2020) identified non-availability of PPE, inadequate training in IPC and PPE use, heavy work load, increasing temperature, low level of education, wrong perception about infections, and inadequate monitoring and supervision as factors accounting for the situation. Thus, these deathcare workers are reported to walk around the morgue barefooted, handle dead bodies barehanded, and handle chemical without nose masks. It was found that overtime, deathcare workers develop a sense of invincibility and likely to ignore safety precautions during work (Botha at el., 2022).

Management infectious dead bodies

According to PAO and WHO (2020) and Yaacoub et al. (2020), procedures for managing infectious dead bodies (such as SARS-CoV-2 and Cholera dead bodies) differ significantly from those for non-infectious dead bodies. Typically, personnel responsible for handling infectious dead bodies must be deliberately trained and oriented (including psychological orientation) and adequately resourced with PPE and facilities that guarantee adequate protection for the workers against infections. Unfortunately, previous studies (James et al., 2015; Molewa et al., 2021) found that mortuary workers in Africa are generally ill-prepared to safely handle infectious dead bodies because there are no systems in place to protect the workers from contracting infections. Compared with deathcare workers in the advanced countries (PAO & WHO, 2020; Yaacoub et al., 2020), deathcare workers in Africa are disproportionately at higher risk of contracting infections (such as Cholera, Sars-CoV-2, Ebola, Lassa, and Dengue) from infectious dead bodies (James et al., 2015; Molewa et al., 2021). This implies that mortuary workers in Africa

do not have adequate knowledge and resources for safe handling of infectious dead bodies.

Typically, deathcare installations are expected to have dedicated facilities that separate and hold infectious dead bodies from non-infectious ones (PAO & WHO, 2020; Yaacoub et al., 2020). Therefore, the storage facilities must be uniquely designed to reduce the risk of contact with blood and other body fluids of the dead bodies. For instance, shelves in the holding area must be easily accessible and within shoulder level (about 4fts) to prevent body fluids and other blood elements from the dead bodies dripping on the workers (James et al., 2015; Molewa et al., 2021; Yaacoub et al., 2020). This aligns with what pertains in the developed countries where mortuaries have been designed with dedicated facilities to separate and hold infectious dead bodies (Akinyemi et al., 2021; Mridula & Ganesh, 2016; Ringane et al., 2019).

Physical attack/assault

The novelty of the SARS-CoV-2 pandemic triggered strong emotions that resulted in individuals, groups, and eve governments becoming very repulsive in their actions (CSTS, 2020; Gray, 2020; Horowitz & Emma, 2020; Kumari, 2021; USG, 2020). The SARS-CoV-2 regulations of most countries, especially in the developing world, conflicted with the norms and traditions of the people regarding the dead (Bertuccio & Runion, 2020). Bhatti, Rauf, Aziz, Martins, and Khan (2021), Gupta and Khandelwal (2020), and McKay, Heisler, Mishori, Catton, and Kloiber (2020) reported that deathcare workers were physically attacked by relatives of SARS-CoV-2 fatalities. Consistent with this, van Stekelenburg, De Cauwer, Barten, and Mortelmans (2022) found that restricting relatives from having access to perform funerals and related rituals for their dead was just unbearable for most.

This aligns with Greenberg, Docherty, Gnanapragasam, and Wessely (2020), Madhivanan, Venugopal, and Dongre (2020), and Nagesh and Chakraborty (2020) that reported that apart from the physical attacks, incidence of verbal assault in the form of insults and curses against deathcare workers were also rife during the pandemic. Clearly, the evidence (Greenberg et al., 2020; Gupta & Khandelwal, 2020; McKay et al., 2020; van Stekelenburg et al., 2022) suggested that deathcare workers suffered far more attacks at work during the pandemic than any other time in their profession.

Psychosocial health

The fear and uncertainties surrounding the SARS-CoV-2 pandemic triggered a wave of hatred towards deathcare workers who handled the fatalities (Kumari, 2021; USG, 2020). In most communities, especially in the developing world, workers participate in the management of dead bodies during the pandemic were wrongly considered super spreaders of the virus (Kumari; WHO/ILO, 2021). Confirming this, Kumari reported that deathcare workers were heavily stigmatised by colleague healthcare workers and the community at large due to their handling of the fatalities. Upholding this, the Guardian (2020) revealed that deathcare workers were faced with the threat of eviction, with some actually being evicted from their rented apartments. Similarly, the evidence (CSTS, 2020; Overmeire & Bilsen, 2020; USG, 2020) showed that deathcare workers were continuously living in fear of contracting the pandemic due to the chronic shortage of PPE and the generally poor conditions of work.

The CSTS (2020) found that the deathcare workers did not go through this alone, but their families had to endure the hash insults and stigmatisation from community members. Thus, the work-life balance of these deathcare

workers during the pandemic was heavily impacted and may result in symptoms of PTSDs for most of them (CSTS, 2020; USG, 2020). Consistent with this, Overmeire and Bilsen (2020) argued that the psychosocial health and well-being of these deathcare workers and their immediate families were severely undermined by the physical and psychological stressors endured during the pandemic.

Exposure to infection (SARS-CoV-2)

As part of the many measures taken to contain the pandemic across the globe was restriction to human movement, resulting in most workers operating from home (Alaran et al., 2022; Egger, Jones, Justino, Manhique, & Santos 2020; Haider et al., 2020; Lakemann, Lay, & Tafese, 2020; van Stekelenburg et al., 2022). However, as argued by Durand-Moreau and Galarneau (2021), Suwalowska et al. (2021), and van Stekelenburg et al., given the essential nature of their work, deathcare workers were still working during this period of fear and gloom. Similarly, according to Aljerian and BaHammam (2020), Chika (2021), Guidetti et al. (2021), and Molewa et al. (2021), these frontline workers were seriously exposed to the pandemic as they commute to-and-from work, and also handle dead bodies. Affirming this, the evidence (Garcia, 2021) showed that quite a number of deathcare workers contracted the virus during the period. Thus, these workers became more exposed and vulnerable as they go about doing their work during the peak of the pandemic.

Coherent with other studies, Finegan et al. (2020) and WHO (2021a; 202c) reported that the disproportionate supply of and global shortage of SARS-CoV-2 vaccines at the time aggravated the plight of deathcare workers and their immediate families. Upholding this, WHO (2021a; 2021c) found that the global wave of misinformation fuelled by conspiracy theories against the

SARS-CoV-2 vaccines triggered a strong resistance among several populations. Consistent with this, Finegan et al. (2020) argued that deathcare workers were faced with a double-burden of the fear of contracting the virus and yet not having access to the vaccines. Contrary to the well-publicised efficacy of the SARS-CoV-2 vaccine, Malhotra (2022) reported that some people died after taking it.

Conceptual Base of the Study

After a broad consultation of several theories and models, matching the strengths and weakness, and ranking their relevance to this study, variables from three theories were synthesised and adapted to develop a conceptual framework for on-site work practices and health of deathcare workers (Brodkin, 2011; Glanz & Bishop, 2010; Glanz, Lewis, & Rimer, 1991; Henderson, 1983; Hupe & Buffat, 2014; Lipsky, 2010; Marin & Psacharopoulos, 1982; Slovic, 2000; Smith, 1776). In order of importance, the theories include the Sub-Optimal Allocation of Job Market Risks (SOAJMRs), Compensating Wage Differentials Theory (CWDs), and Health Belief Model (HBM). Specifically, the variables drawn from these theories include the SOAJMRs (formal education, resources, and workload), CWDs (risk-aversion or beliefs/philosophy of work, and formal education), and the HBM (safety risk perceptions [susceptibility, severity, benefits, barriers, and self-efficacy]) (Henderson, 1983; Lipsky, 1980; Rosen, 1986). Figure 4 provides details of variables underpinning the conceptual base of the study.

Upon further consultation of literature (Dartey, 2021; O'Keeffe, 2021; Ringane et al., 2019; Sugata et al., 2016; Vidua et al., 2020; WHO, 2021b), and based on the purpose of this study, few other constructs were added to the ones mentioned above. This includes training/orientation, awareness and knowledge,

monitoring and supervision, and routine medical screening. The framework examined factors that may influence on-site work practices and health, as they relate to deathcare workers, and were grouped into personal and work-based factors. Personal factors include formal education, perceptions, belief/philosophy of work, and awareness and knowledge. Then, the work-based factors include resources/logistics, facilities, workload, training/ orientation, monitoring and supervision, and medical screening. Where the personal or work-based factors are adequate and fully utilised, there would be likelihood of a positive impact on on-site work practices and health (Henderson, 1983; Lipsky, 1980; Rosen, 1986).

However, any deficit in either of these variables would negatively impact the system and lead to deterioration in the on-site work practices and health (Dartey et al., 2021; Henderson, 1983; Rosen, 1986). For instance, if the deathcare worker has little or no formal education, does not perceive personal susceptibility to hazard, underrates the severity of hazard, believes that money comes first in all things, and also lacks the awareness and knowledge about a particular hazard, the likelihood to ignore the universal precautions would be high (Rosenstock et al., 1988). Since these factors are interdependent and mutually inclusive, a deficit in one factor can disorient the others towards a negative direction. Similarly, where resources and facilities are adequate and functional, the deathcare workers are likely to use them to improve upon work safety practices.

Generally, processing of decedents will require that deathcare workers possess adequate skills and competencies, the right attitudes and beliefs, formally educated, and also have adequate resources and facilities to work with (Botha et al., 2022; Dartey et al., 2021). As frontline workers, activities of

deathcare workers require supportive monitoring and supervision to ensure that their practices are in tune with universal standards (WHO, 2021a; 2021b). Where this is lacking, deathcare workers may apply wide discretion at work and have no one to advocate for their welfare (Lipsky, 2010).

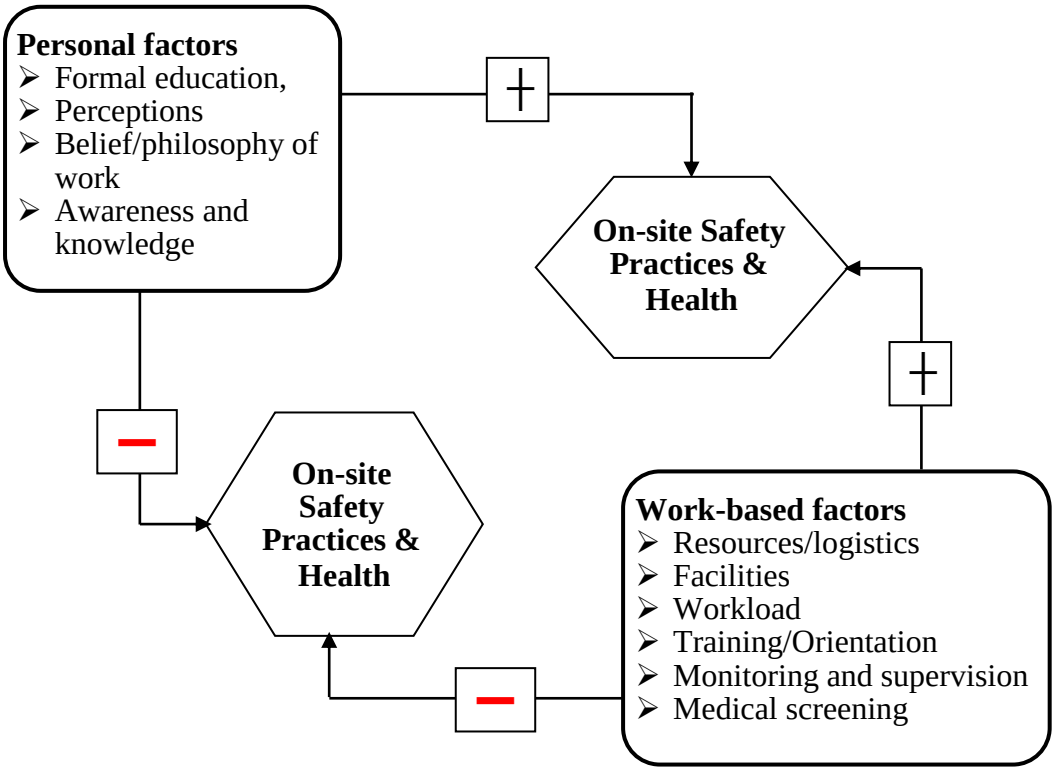

Figure 4: Conceptual Base for health and safety practices. Source: Author's own construct

Summary

The primary aim of OHS is to promote and protect the health and well-being of all workers (ILO, 2020a; 2020b). While every worker is confronted with hazards in the course of work, some workers are far more exposed (ILO, 2020b; Lazic, 2022). Deathcare workers are disproportionately exposed to work-based hazards (Guidetti et al., 2021). In Ghana, deathcare workers are reported to work under dehumanising conditions (Botha et al., 2022; Dartey et al., 2021), and yet, the country lacks a national policy on OHS to uphold the rights of workers (GEA, 2022). Meanwhile, some theories identified factors

that predict safe work practices and health of workers (Pouliakas & Theodossiou, 2010). This includes the theory of sub-optimal allocation of job market risk by Henderson (1983), the compensating wage differentials theory by Rosen (1986), and the health belief model by Rosenstock (1974). Typically, personal and work-based factors predict the adoption of safe work practices and health of these deathcare workers (Maunder, 2021). Meanwhile, OHS is a continuous process and all key actors (employers and employees) must work as a team to improve health, well-being, and productivity (MoH, 2015; 2010).

CHAPTER THREE

RESEARCH METHODS

The purpose of the study was to examine the on-site safety practices and health experiences of deathcare workers in the Western Region of Ghana, using descriptive phenomenological designs with observation. This chapter describes the methods including, study design, study area, population, sampling procedure, data collection instruments, data collection procedure, and data processing and analysis.

Research Design

This study used the descriptive phenomenological designs by Edmund Husserl with observation to examine the occupational health and safety experiences of deathcare workers in Western Ghana (Cudjoe, 2023; Englander & Morley, 2023; Sinfield, Goldspink, & Wilson, 2023). Descriptive phenomenological designs with observation are traced to anthropology and sociology, and involve the researcher examining the shared patterns of behaviour, actions, and motives of a defined group, i.e. deathcare workers, in their work environment, morgues and funeral homes (Cudjoe, 2023; Englander & Morley, 2023; Sinfield et al., 2023). Therefore, descriptive phenomenology with observation is a study of the behaviours and standards of work prevailing in an organisation through interviews with the workers and managers and carrying out observations of the mortuary and other facilities of the deathcare industry (Cudjoe, 2023; Englander & Morley, 2023; Sinfield et al., 2023). The assertion is that, these behaviours and standards of work exist in the minds of the deathcare workers who lived and experience such conditions, which they exhibit when undertaking their daily tasks. This design was deemed most appropriate because it allows for a considerable use of

multiple research techniques, especially, non-participant observations and interviews (Cudjoe, 2023; Englander & Morley, 2023; Sinfield et al., 2023). In this study, the deathcare workers were interviewed and also observed while they undertook their daily tasks and worked on the dead bodies.

As a research design, the descriptive phenomenology with observation possesses unique features that made it most suitable for application in this study (Farrell, 2020; Shorey & Ng, 2022; Sinfield et al., 2023). For instance, descriptive phenomenology with observation made it easier to understand the subjective experiences of workers within the deathcare industry, and thus, aided the development of rich and in-depth account of their experiences, perceptions and emotions (Farrell, 2020; Shorey & Ng, 2022; Sinfield et al., 2023). Unlike other designs, descriptive phenomenology with observation accommodates multiple research techniques like interviews and observations which promote triangulation and trustworthiness of the data (Farrell, 2020; Shorey & Ng, 2022; Sinfield et al., 2023). With this design, the study was largely worker-driven and sensitive to their peculiar world (deathcare industry) and circumstances or conditions of work (Farrell, 2020; Shorey & Ng, 2022; Sinfield et al., 2023). In the main, this helped in making the findings more relevant and meaningful to the deathcare workers and the industry.

Though the efficacy of descriptive phenomenology with observation design is well reported (Farrell, 2020; Shorey & Ng, 2022; Sinfield et al., 2023), there are some limitations that must be acknowledged (Doyle, McCabe, Keogh, Brady, & McCann, 2020; Farrell, 2020; Shorey & Ng, 2022). First, its focus on the subjective experiences of deathcare workers limited the generalizability of findings to all deathcare workers in Ghana (Doyle et al.,

2020; Farrell, 2020; Shorey & Ng, 2022). However, this was mitigated through effective researcher-bracketing (Farrell, 2020, Shorey & Ng, 2022). Secondly, investigating deathcare workers using both interviews and observations was time consuming and expensive (Doyle et al., 2020; Farrell, 2020; Shorey & Ng, 2022). This was also resolved through pre-testing of the instrument so as to find effective and efficient ways of applying the design (Farrell, 2020, Shorey & Ng, 2022). Furthermore, the descriptive phenomenology with observation, as a qualitative design, is susceptible to researcher bias at the point of data collection, interpretation and analysis (Doyle et al., 2020; Farrell, 2020; Shorey & Ng, 2022). This was also cured through effective application of bracketing techniques (Farrell, 2020, Shorey & Ng, 2022), involvement of peer reviewers with experience in qualitative research methods. Finally, it is difficult to compare evidence across studies and establish standards (Doyle et al., 2020; Farrell, 2020; Shorey & Ng, 2022). This was mitigated through the use of the qualitative computerised data software, NVivo version 14 during the thematic analysis (Silver, 2023a; Silver, 2023b; Zentner & Zentner, 2021).

This study was inspired by the constructivist worldview (Berger & Luekmann, 1967; Lincoln & Guba, 1985). Over the years, this philosophical worldview of knowledge creation or scientific inquiry became popular worldwide and received considerable attention (Crotty, 1998; Mertens, 2009; Lincoln, Lynham, & Guba, 2011). The constructivists hold the view that people seek understanding of the world around them by developing subjective meanings of their experiences (Alloatti, 2019; Creswell, 2013; Foo et al, 2021). The researcher is thus, faced with varied and multiple meanings that trigger the search for complexity of views rather than reducing meanings into

few categories or ideas. Therefore, I explained and presented the occupational health and safety experiences and concerns of deathcare workers through their own viewpoints (Creswell, 2013; Foo et al., 2021). The specific context in which these deathcare workers operated was considered and helped gave a better appreciation of the historical and cultural factors underpinning their experiences and practices (Creswell, 2013; Lincoln et al., 2011).

Affirming the philosophical worldview of this study, the qualitative research approach was used to examine the experiences of deathcare workers in the Western Region, Ghana (Ladner, 2016; Lichterman, 2016; Russell & Barley, 2019; Streefkerk, 2022). This approach offered me the opportunity to establish the meanings behind the behaviour of the deathcare workers (Davie-Kessler, 2016; Ladner, 2016; Lichterman, 2016; Russell & Barley, 2019). To this end, deathcare workers had the opportunity to share their experiences about their work through interviews, while their practices and work environments were assessed (Davie-Kessler, 2016; Fleming & Rhodes, 2023; Kirsch, 2022; Russell & Barley, 2019). Thus, by the aid of the qualitative approach, the lived experiences of deathcare workers were thoroughly explored to have a better understanding of occupational health and safety concerns of the workers (Alloatti, 2019; Foo et al., 2021).

Study Area

Western Region is one of the 16 administrative regions in Ghana (Western Regional Coordinating Council [WRCC], 2024). It is located in the southern Ghana, bordered in the west by the Western North Region and Ivory Coast (Comoé District), on the east by the Central Region, and the south by the Gulf of Guinea [the Atlantic Ocean] (WRCC, 2024). Sekondi-Takoradi, is a large twin city and the administrative capital of the Western Region, located

on the coastal and hilly inland area (WRCC, 2024). This is a culturally diverse region with the Akans (Ahanta, Nzema, Wassa, Pepesa, and Fante) being the dominant ethnic groups. Other minority ethnic groups include the Ewes, Gas, Gonjas, and Dagombas.

The region has a population of 2,057,225 and is said to records the highest amount of rainfall in Ghana (GSS, 2021). It has many large-scale and artisanal gold mines and offshore oil platforms (WRCC, 2024). The region has many healthcare and deathcare facilities including the Axim Government Hospital, Bogoso Polyclinic, Eternity Mortuary and Funeral Home, Father Thomas Catholic Hospital, First Class Mortuary, and Half-Assini Government Hospital. Others included Prestea Government Hospital, Takoradi Hospital, Tarkwa Municipal Hospital, VIP Mortuary and Funeral Home, Wassa Akropong Government Hospital, and Western Regional Hospital.

Axim Government Hospital was established in the year 1925 in the Nzema East Municipality (Axim Government Hospital [AGH], 2024). The hospital is a-320 bed capacity facility located in the Axim. The hospital is a primary care provider and credentialed by the National Health Insurance Authority at the prescriber level 'C'. The facility has mortuary services with a holding capacity of 90 bodies per period (AGH, 2024). Bogoso Polyclinic was established in 2010 to provide healthcare to the Tarkwa and adjoining communities (Bogoso Polyclinic [BP], 2024). It is a-46 bed capacity facility credentialed by the National Health Insurance Authority to operate at prescriber level 'C'. The hospital has mortuary services with a holding capacity of 12 bodies at a time (BP, 2024). Eternity Mortuary and Funeral Home (also called Dr. Mensah) is a privately owned deathcare facility located off the Takoradi-Agona road in the Effia-Kwesimintsim Municipality

(Effman's Clinic [EC], 2024). The facility (funeral home and the morgue) was built and operationalized in the year 2013 and sited 500 meters away from the Effman's Clinic owned by the same proprietor (Director of Effman's Clinic). It has a body-holding capacity of 600 bodies and has a lodgement facility that can accommodate 50 grieving families per time. The facility is fully equipped with a room for processing the bodies and another for laying the bodies in state (EC, 2024). Father Thomas Catholic Hospital at Asanko was established in 1954 to provide healthcare to the Asanko and adjoining communities (Father Thomas Catholic Hospital [FTCH], 2024). It is a-120 bed capacity facility credentialed by the National Health Insurance Authority to operate at prescriber level 'C'. The hospital has mortuary services with a holding capacity of 300 bodies (FTCH, 2024).

First Class Mortuary was established in 2018 to provide mortuary services to communities within Wassa Agona community and Tarkwa Municipality (First Class Mortuary [FCM], 2024). The hospital has mortuary services with a holding capacity of 240 bodies and accommodation facilities for the deathcare workers (FCM, 2024). Half-Assini Government Hospital was established in 1974 to serve the Half-Assini community (Half-Assini Government Hospital [HGH], 2024). It is a-160 bed facility located within Half-Assini but also serves the whole of Jomoro District. The facility is accessed by National Health Insurance card holders and operates at prescriber level 'C'. The hospital has mortuary services with a holding capacity of 80 bodies (HGH, 2024). Prestea Government Hospital was established in 1929 by the then state Gold Mine Company to provide healthcare to their workers (Prestea Government Hospital [PGH], 2024). The facility now serves residents of the Prestea Huni Valley Municipality and the communities around. It is

credentialed by the National Health Insurance Authority to operate at prescriber level 'C'. The hospital has mortuary services with a holding capacity of 50 bodies (PGH, 2024). Takoradi Hospital (also known as European Hospital) is one of the legacies bequeathed to Ghana by the colonial masters (Takoradi Hospital [TH], 2024). It is a-120 bed capacity hospital built in the mid 1920's, and officially commissioned in 1929. It was built to serve the medical needs of the Europeans who were brought in by the colonial masters to build the Takoradi Harbour, hence, the name "European Hospital". The hospital has mortuary services with a holding capacity of 60 bodies (TH, 2024).

Tarkwa Municipal Hospital was established in 1983 to provide healthcare services to the Tarkwa and adjoining communities (Tarkwa Municipal Hospital [TMH], 2024). It is a-180 bed capacity facility credentialed by the National Health Insurance Authority to operate at prescriber level 'C'. The hospital has mortuary services with a holding capacity of 100 bodies (TMH, 2024). VIP Mortuary and Funeral Home is a privately owned deathcare (mortuary and funeral home) facility established in 2016 to service communities within and around Bogoso (VIP Mortuary and Funeral Home [VMFH], 2024). Accordingly, the facility has a holding capacity of 80 bodies and adequate space for laying the bodies in state. Wassa-Akropong Government Hospital was established in 1953 to provide healthcare to the people of Wassa-Amenfi East and West Districts and adjoining communities (Wassa-Akropong Government Hospital [WGH], 2024). It is a-180 bed capacity facility credentialed by the National Health Insurance Authority to operate at prescriber level 'C'. The hospital has mortuary services with a holding capacity of 140 bodies (WGH, 2024). Western Regional

Hospital (also known as Effia-Nkwanta Regional Hospital) was established in 1938 as a Military Hospital by the then British West African Royal Frontier Force Base (Western Regional Hospital [WRH], 2024). The hospital is the main referral centre for all medical conditions within the Western and Western North Regions. The hospital has several specialist units and patronised by clients within and outside the region, with its catchment area extending to Ivory Coast. As part of its range of services, the facility has a mortuary facility with a holding capacity of 100 bodies (WRH, 2024).

Population

The study population included 51 deathcare workers (42 mortuary workers and 9 are both mortuary workers and funeral directors). Therefore, there were 42 mortuary attendants (30 public and 12 private) working in twelve (ten public and two private) functional mortuary facilities distributed across the region (Western Regional Environmental Health Office, 2024). The public mortuary facilities included the Axim Government Hospital – 4 workers, Bogoso Polyclinic – 1 worker, Father Thomas Catholic Hospital – 5 workers, Half-Assini Government Hospital – 3 workers, and Prestea Government Hospital – 5 workers. Others included Takoradi Hospital – 4 workers, Tarkwa Municipal Hospital – 5 workers, Wassa Akropong Government Hospital – 5 workers, and Western Regional Hospital – 5 workers. The private mortuary facilities included the Eternity Mortuary and Funeral Home – 6 workers and First Class Mortuary – 5 workers (AGH, 2024; BP, 2024; EC, 2024; FTCH, 2024; FCM, 2024; HAGH, 2024; PGH, 2024; TH, 2024; TMH, 2024; WGH, 2024; WRH, 2024).

Furthermore, there were nine funeral directors who also work as mortuary attendants at two functional funeral homes in the Western Region

(Western Regional Environmental Health Office, 2024). The funeral homes included Eternity Mortuaries and Funeral Home and six funeral directors located in the Effia-Kwesimintsim District and VIP Mortuary and Funeral Home, three funeral directors located in the Bogoso District (EC, 2024; VMFH, 2024). The core duties of deathcare workers included the following: perform basic housekeeping duties (cleaning, mopping, dusting, removal of cobwebs, etc.), and receipt and registration of dead bodies (De Jesus & Barnhill, 2023; Goodwin University, 2022). Others included receipt, storage, and use of chemicals and other logistics, carrying dead bodies, cleaning and embalming dead bodies, advice and console grieving families, clean equipment and tools, and keep up-to-date record of all activities performed at the facilities (Botha et al., 2022; Dartey et al., 2021; Litana & Kapambwe, 2017; Simone, 2022).

As direct supervisors of deathcare workers, 12 deathcare managers were also recruited as significant others. Out of this number, mortuary managers were 10 and funeral home managers were two. Moreover, 10 of the mortuary managers were from public morgues and two from the private morgues. The funeral home managers were all from private facilities. The managers are responsible for oversight, the day-to-day running of the facilities, and ensure that the deathcare facilities and their operations promote and protect the health of the workers (AGH, 2024; BP, 2024; EC, 2024; FTCH, 2024; FCM, 2024; HAGH, 2024; PGH, 2024; TH, 2024; TMH, 2024; VMFH, 2024; WGH, 2024; WRH, 2024). Given their role, the views of these managers were useful in confirming the information gotten from the deathcare workers (Hagaman & Wutich, 2017; Hennink, Kaiser, & Marconi, 2017).

Sampling Procedure

The sample for this study included 51 deathcare workers in the Western Region, Ghana. These deathcare workers were recruited using purposive, census, and convenient sampling techniques (Andrade, 2021; Hagaman & Wutich, 2017; Hennink, Kaiser, & Marconi, 2017; Ogah, 2013; Setia, 2016). The purposive technique was initially applied to select the deathcare workers in the region since they are the workers dealing directly with dead remains. Furthermore, all the deathcare workers (census) were included in the study since the population was relatively a small one (Hagaman & Wutich, 2017; Ogah, 2013). Table 1 provides details on the socio-demographic characteristics of deathcare workers, while Table 2 provides details on the socio-demographic characteristics of deathcare managers. Finally, convenient technique was used in contacting the deathcare workers and their managers (significant others) directly for face-to-face interviews (Andrade, 2021; Setia, 2016).

There are inherent strengths and limitations presented by these sampling procedures which could impact the findings of the study. For instance, census presents a reasonably accurate measure of the study population by eliminating selection bias (Hagaman & Wutich, 2017; Ogah, 2013). That is, census provides a level of standardised data for the study and also yields robust information about minor sub-groups within the population. However, applying census can be time consuming, costly, and difficult to exhaust all the relevant variables in the population. Flexibility of purposive sampling technique makes it time and cost effective to the researcher and can be applied in numerous qualitative research designs (Ogah, 2013). Nonetheless, purposive sampling can result in selection bias of the sample and

may be ineffective when large population sizes are involved. Fortunately, this did not apply in this study, because the population (sample) was small and did not require selecting part but rather all. Meanwhile, the convenient sampling technique is cost and time effective, efficient, and easy to conduct (Andrade, 2021; Setia, 2016). Nevertheless, samples gotten through convenient technique are not representative and can easily produce false data. Besides, results from convenient sampling technique could be difficult to replicate (Andrade, 2021; Setia, 2016). However, these issues may not affect this study since the study involved very small population who are workers located in their workplaces and were easily available to the researcher.

Table 1: Socio-Demographic Characteristics of Deathcare Workers

Variable		Frequency	Percentage (%)
Gender	Male	44	86.3
	Female	7	13.7
Age	21 – 31	6	11.7
	32 – 42	29	56.9
	43 – 53	16	31.4
Level of formal education	None	7	13.7
	Primary	7	13.7
	Middle school	2	3.9
	Junior High	15	29.5
	Vocational/Technical	2	3.9
	Senior High	16	31.4
	Technical University	2	3.9
Work experience	1yr – 5yrs	29	56.9
	6yrs – 10yrs	18	35.3
	11yrs – 15yrs	3	5.9
	16yrs – 20yrs	1	1.9

Source: Field interview, 2024

Table 2: Socio-Demographic Characteristics of Deathcare Managers

Variable		Frequency	Percentage (%)
Gender	Male	7	58.3
	Female	5	41.7
Age	30 – 40	3	25
	41 – 50	8	66.7
	51 – 60	1	8.3
Level of formal education	Senior High	9	75
	Degree	3	25
Work experience	5yrs – 10yrs	7	58.3
	Above 10yrs	5	41.7

Source: Field Interview, 2024

Data Collection Instruments

Data was collected using two instruments; interview guide and observation checklist, which were adapted from Botha et al. (2022) and Dartey et al. (2021). In Botha et al. (2022), the interview guide was composed of 36 items covering five sections including bio-demographic data of mortuary attendants, awareness about industry policies, knowledge about industry policies, work conditions, and safety infrastructure. The observation checklist was made up of 24 items and covered compliance of mortuary facilities to standards and availability and use of PPE and work practices. In Dartey et al. (2021), the interview guide measured the nature of mortuary work, qualification and training of mortuary attendants, and work conditions of mortuary attendants. Also, Dartey et al. (2021) measured formaldehyde exposure among the deathcare workers. Consistent with the objectives and purpose of the study, portions from Botha et al. and Dartey et al. that were used for the instrument were re-worded and rephrased. Additionally, the interview guide for deathcare managers was drawn from a study by Botha et al. (2022).

The current interview guide for deathcare workers included five items and 18 prompts. The instruments solicited socio-demographic data such as age, gender, level of formal education, and work experience from the workers. Item one (three prompts) determines knowledge about the IPC and OHS Policy Guides of MoH, and Ghana's Law. Sample prompts included: *"What does the Infection Prevention and Control Policy Guide require of you?"* and *"How does the Occupational Health and Safety Policy Guide protect you as a deathcare worker?"*. Item two (two prompts) explored how Infectious Dead Bodies (Sars-Cov-2, Cholera dead bodies, etc.) are been handled by the workers. Sample prompts included: *"How did your employer prepare you for this role?"* and *"What measures are in place to protect you from infectious disease?"*. Item three (two prompts) examined the safety hazards experienced by deathcare workers. Sample prompts included: "*What physical safety hazards do you experience during work?*" and "*What psychosocial safety hazards do you experience during work?*". Item four (11 prompts) examined the relevance of personal and work-based factors to deathcare work. Sample prompts included: "*In what ways does formal education contribute to your work?*", "*In what ways does personal belief/philosophy of work contribute to your work?*", "*In what ways do policies contribute to your work?*", and "*In what ways do monitoring and supervision contribute to your work?*".

The interview guide for the deathcare managers (significant others) was made up of four items and 19 prompts. Item one determined the responsibilities of managers for the Deathcare Workers. Sample prompt included: "*How do you recruit and manage your Deathcare Workers?".* Item two examined how the Infectious Dead Bodies (SARS-CoV-2, Cholera dead bodies, etc.) were been managed by the workers. Sample prompts included:

"*Which guideline(s) do you rely on in managing infectious dead bodies?*", "*How do you prepare your deathcare workers for this role?*", and "*What measures do you have in place to protect them from infectious diseases?*". Item three explored the relevance of personal and work-based factors to deathcare work. Sample prompts included: "*In what ways does formal education contribute to deathcare work?*", "*In what ways does personal belief/philosophy of work contribute to deathcare work?*", "*In what ways do policies contribute to deathcare work?*", and "*In what ways do monitoring and supervision contribute to deathcare work?*" (Botha et al., 2022; Dartey et al., 2021).

Meanwhile, two observation checklists were used, the first examined the on-site safety practices and use of safety equipment like PPE by the workers. The second part explored the working environments and other safety requirements used by the deathcare workers. Checklist I comprised four items and Checklist II included 12 items (Botha et al., 2022; Dartey et al., 2021).

Pre-testing of instruments

To ensure that the instruments correctly answer the research questions, a pre-test was conducted at three deathcare facilities in the Central and Western North Regions of Ghana. Therefore, the instruments were administered to 31 deathcare workers and three managers from the Enchi Government Hospital Mortuary, Western North Region (one deathcare manager and six deathcare workers), Clean Care Funeral Home, Western North (one deathcare manager and 12 deathcare workers), and Grace Mortuary and Funeral Home, Central Region (one deathcare manager and 13 deathcare workers) (Clean Care Funeral Home, 2024; Enchi Government Hospital, 2024; Grace Mortuary and Funeral Home, 2024). The deathcare workers and

their managers were interviewed, safety work practices were observed and deathcare facilities accessed (Foo et al., 2021; Hauter, 2023; Marcus, 2021; Montrouxe & Ajjawi, 2020). Additionally, using three Environmental Health Officers, inter-rater reliability test was conducted for the two observation checklists (Foo et al., 2021; Marcus, 2021), the data was organised and well-ordered into themes. This was followed by a re-conciliation of data from the field into one complete text and analysed using ethnographic analysis (Creswell, 2013; Foo et al, 2021; Marcus, 2021). As part of this process, the instruments were also reviewed by the Western Regional Environmental Health Officer and further refined by my supervisors to guarantee quality. The process and outcome were used to assess and resolve any sentence ambiguities or grammatical errors in the instruments.

Inter-rater analysis

To ensure that the observation checklists correctly measure the intended aspects of the study and are trustworthy, inter-rater analysis was conducted (Cole, 2024; MacDonald, Schoenebeck, & Forte, 2019; McAister et al., 2017). Three senior Environmental Health Officers (rater) with over five years of supervising the deathcare industry rated the checklists. Each rater was met separately to discuss and define the constructs in the checklists. Checklist I examined the on-site safety practices of the workers and use of safety equipment like PPE, while the Checklist II explored the working environments and other safety requirements for the deathcare industry. Using a double-blind technique, no rater was aware of the involvement of other raters and the observations were conducted independently and at different periods (Cole, 2024; MacDonald et al., 2019; McAister et al., 2017).

Following the conduct of observations, peer-debriefing was organised among all the raters and the researcher to discuss the results and agree on aspects of the checklists needing improvement (Cole, 2024; MacDonald et al., 2019; McAister et al., 2017). On Checklist I, two raters scored between 70%-88% in all the items while the third rater scored 53%-66%. On the Checklist II, all three raters scored above 90% in all the items. Additionally, it was agreed that aspects of Checklist I be revised to read: from "washed hands and bathed after close of work" to "hand and personal hygiene practices", from "positioning of dead bodies during embalmment" to "handling of the dead bodies". Overall, the process guaranteed consistency, credibility, and transparency in developing the checklists and significantly improved the accuracy of the items (Cole, 2024; MacDonald et al., 2019; McAister et al., 2017).

Results of pre-testing

Using the descriptive phenomenological analysis (Cudjoe, 2023; Englander & Morley, 2023; Sinfield, Goldspink, & Wilson, 2023), four themes and eight sub-themes emerged. Theme one – limited knowledge about deathcare industry regulations, theme two – unsafe on-site safety practices, which produced three sub-themes, including poor adherence to PPE usage, inappropriate hand and personal hygiene practices, and inappropriate manipulation of dead bodies. Theme three – ill-prepared to handle infectious disease dead bodies, also yielded two sub-themes, including inadequate facilities for infectious bodies and inadequate training for handling infectious disease dead bodies. Theme four – psychosocial safety-burden of work, produced three sub-themes, which include heavy workload, appalling work environment and humiliation, and poor remuneration and lack of carrier

progression. The results showed that deathcare workers in selected facilities in the Central and Western North regions of Ghana have limited knowledge about the regulation and policies governing the deathcare industry. This may reduce workers' rights to demand for appropriate protection of their health and safety at work. Therefore, the workers may lack the knowledge required in the safe delivery of deathcare services and may be unable to demand for their rights under the policy guidelines.

Additionally, the on-site safety practices of the workers are inconsistent with the OHS and IPC Policy Guidelines of the MoH. Thus, the workers were at risk of exposure to body fluids and faecal matter from the orifices of the dead bodies due to inappropriate manipulation of bodies, especially during embalmment and decoration of same for public viewing. Specifically, though the workers were not provided with the full complement of PPE required, they failed to utilise the ones that were available. Moreover, workers are inadequately prepared to handle infectious disease dead bodies. Specifically, the deathcare installations lacked the required facilities for safe management of infectious disease bodies, and that, the workers have not been trained on how to safely manage such dead bodies. Furthermore, these workers are confronted with many psychosocial safety hazards at work, including heavy workload, appalling work environment and humiliation. Moreover, these workers are poorly remunerated and do not have opportunity for carrier progression. Unfortunately, the physical work environments of the facilities do not conform to the OHS and IPC Policy Guidelines and the decent work agenda of the ILO, which provide for adequate social protection and respect for the human nature. These workers may also adopt unhealthy coping

strategies, including substance abuse, which would in turn compromise their health, safety and well-being.

The pre-testing has helped improve the overall conduct of the study. Specifically, the process offered the research team, especially the Research Assistants, the opportunity to experience the deathcare industry at first hand and familiarise itself with the deathcare work. Based on this experience, the team was able to apply appropriate coping strategies during and after data collection. Though some research assistants dropped out mid-way through the study, the experiences from the pre-testing aided in the successful collection of the data. Additionally, the experience helped in improving the duration and timings for the interview, the budget for the study was adjusted upwards to cater for additional PPE and psycho-medical care for the team. Though the interviews were mainly face-to-face, the pre-testing helped the team to adequately prepare and conduct interviews with some workers who were not prepared to respond to some interview items during the face-to-face sessions. Overall, the clarity and understanding of the instrument (interview guide and observation checklists), relevance and applicability of the instrument to the workers, language and wording and context-specific relevance of the instrument, as well as the timing and duration of the interviews and observations improved during the study.

Data Collection Procedures

Data collection commenced after approval of the research protocol by my supervisors. Moreover, ethical clearance was secured from the Institutional Review Board [IRB] of the 37 Military Hospital, Accra (37MH-IRB/PhD/IPN/817/23). In addition, the ethical approval and introductory letters from the Department of Health, Physical Education and Recreation

(HPER), UCC, were submitted to the Western Regional Director of Health Services, Western Regional Environmental Health Officer (WEHO), the Medical Directors and Superintendents of Western Regional Hospital in Sekondi, and other hospitals. Furthermore, informed consent form describing the purpose of the study and estimated time required for the interview was signed by the deathcare workers and their managers to affirm their participation in the study.

Five research assistants (RAs) assisted in the data collection. The RAs were recruited and trained on audio recording and note taking during the interview sessions. They were trained on the various hazards the data collection may pose to them. The managers and deathcare workers were contacted in-person in their respective units and offices for the interview and during observations. In addition, the workers and their managers were interviewed during break periods (12–2 pm) to prevent too much interference with routine activities of the workers. Also, impromptu assessment of work practices was also conducted during peak working hours, like Fridays and Saturday mornings, using the Checklist I. Moreover, a walk-through assessment of the facilities was carried out using the observation Checklist II. The interviews lasted between 30 and 45 minutes, while the observations were between 30 and 50 minutes. To ensure confidentiality and anonymity of participants, responses were coded instead of using real names of participants or their units of work. The data collection lasted four weeks, that is from 8th February to 10th March, 2024, in which the various facilities were visited daily.

Qualitative rigour

Trustworthiness is considered an effective framework for establishing rigour in qualitative research (Connelly, 2016; Creswell & Creswell, 2017; Grossoehme, 2014; van Rijnsoever, 2017). Therefore, this study applied five key strategies involved in ensuring trustworthiness. These are credibility, transferability, dependability, confirmability, and reflexivity. Credibility, a measure of the truth-value of this study was accounted for through persistent observation of the workers and prolonged engagement with the data, looking for similarities within and across participants (Creswell & Creswell, 2017; van Rijnsoever, 2017). Additionally, member-checking and peer-debriefing (among the researcher and the five RAs) was conducted of the findings, couple with the triangulation of data from different deathcare facilities (Creswell & Creswell, 2017; van Rijnsoever, 2017).

To ensure transferability in this study, thick description of data provided a detailed account of all the various deathcare facilities and the workers (Creswell & Creswell, 2017; van Rijnsoever, 2017). Furthermore, there was detailed description of the research approach and design deployed in this study for ease of reference by other researchers who may want to apply same. On dependability, this study provided a vivid account of the approach and designs used and made clear all processes leading to the findings of the study, so that other researchers could replicate the study to produce consistent outcomes (Connelly, 2016; Grossoehme, 2014; van Rijnsoever, 2017). Confirmability is established by adopting strategies such as researcher bracketing to account for researcher biases (Connelly, 2016; Creswell & Creswell, 2017; Grossoehme, 2014). Moreover, there was full disclosure of the background of the researcher which helped in enriching the findings. That

is, results of this study accurately reflected the views of the workers and their managers and affirmed and or disaffirmed previous studies (Connelly, 2016; Creswell & Creswell, 2017; Grossoehme, 2014).

The researcher is familiar with the deathcare industry because the researcher had previously investigated deathcare workers. To ensure that this background does not cloud the researcher's views of the participants in the current study, the researcher was guided by the principle of reflexivity (Creswell & Creswell, 2017; van Rijnsoever, 2017). Thus, the researcher ensured that the views of the deathcare workers were accurately represented and truly upheld by the results and findings. With this in place, the researcher leveraged, enriched and deepened the conduct of the study and ensured that the study context was well represented (Connelly, 2016; Creswell & Creswell, 2017; van Rijnsoever, 2017).

Reflexivity Report

In keeping with the values of transparency, focus, and objectivity in data collection, interpretation, and presentation, reflexivity was upheld through the following: the use of a reflexive journal, peer debriefing, and observing a critical self-reflection (Creswell & Creswell, 2017; van Rijnsoever, 2017). The process started with the use of a reflexive journal which was developed to guide the conduct of the entire study (Creswell & Creswell, 2017; van Rijnsoever, 2017). The journal was used to document a range of personal records including the background of the researcher as a practicing Health Services Administrator with rich familiarity with the deathcare industry, as well as one who previously investigated the same industry in the Sekondi-Takoradi Metropolis. In addition, the backgrounds of the other research team members, a Clinical Psychologist, and the Research

Assistants which included Nurses and Laboratory Technologists were fully disclosed (Creswell & Creswell, 2017; van Rijnsoever, 2017).

Furthermore, personal fears, emotions, reservations, stereotypes, and misconceptions held by each member of the team about the deathcare industry and their potential influence on the conduct of the study were thoroughly discussed by the team. Therefore, each member of the research team kept a critical view of their presuppositions, personal traits, and assumptions about the deathcare workers and the industry as a whole with the view to mitigating possible of bias (Creswell & Creswell, 2017; van Rijnsoever, 2017). Moreover, through the assistance of the supervisors, the potential impact of these personal characteristics on the quality of the interviews, observations, data transcription, interpretation of findings, and the conclusions reached were discussed and resolved (Creswell & Creswell, 2017; van Rijnsoever, 2017). These activities were carried out before and during the conduct of the pre-test as well as during the main conduct of the main study (Creswell & Creswell, 2017; van Rijnsoever, 2017). Members of the research team were encouraged to disclose in writing how their personal characteristics may have influenced the style of questioning during the interviews and also the participant's responses during the conduct of the pre-test and the main study. These activities afforded the team (Researcher and Clinical Psychologist) opportunity to address issues pertaining to their personal emotions and fears regarding the deathcare industry.

Furthermore, the potential for bias at each stage of the data collection, analysis, and presentation of results and findings was mitigated through peer-debriefing and discussion with the supervisors (Creswell & Creswell, 2017; van Rijnsoever, 2017). As part of this, transcripts and initial analysis were

shared with the supervisors for their critique and assessment of potential bias. The supervisors suggested that some themes be dropped while others that may have been overlooked by the researcher are considered. These procedures helped in optimising the rigour and credibility of the study and ensure that the findings are grounded in data as well as in relevant literature (Creswell & Creswell, 2017; van Rijnsoever, 2017). Overall, the process helped in optimising transparency in the conduct of the study by ensuring that the research team remained focused on the direction of data rather than personal views.

Data Processing and Analysis

Data analysis was conducted using the seven steps of descriptive phenomenological data analytical approach by Paul Colaizzi (Wirihana et al., 2018). This included transcribing the interviews recordings and integrating with field notes, identifying and isolating significant statements (coding), formulating meanings from the statements (examining codes), identifying and isolating themes based on the objectives and purpose of the study, developing detailed description of themes, identifying and reporting the fundamental structures of the phenomenon, and returning to participants to verify and validate the report (Wirihana et al., 2018). Therefore, research questions one to four were all analysed using Paul Colaizzi's seven step descriptive phenomenological analytical approach (Wirihana et al., 2018). Data collection and analysis were triggered concurrently, where audio recorded data were manually transcribed into written text and the field notes organised and properly ordered (Wirihana et al., 2018). Additionally, notes from non-participant observations and assessment of work environment were thoroughly described in line with the purpose of the study (Wirihana et al., 2018). Again,

all names and descriptions that may expose the identity of the deathcare workers and their managers and compromise confidentiality were anonymised using pseudo names (Wirihana et al., 2018).

Research question one sought to determine the knowledge of deathcare workers in the Western Region about the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law in relation to the workers' OHS challenges and practices. These health and safety guidelines are supposed to guide the work activities of deathcare workers (MoH, 2015; 2010). Research question two examined the on-site safety practices of deathcare workers in the Western Region, based on the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law. This included both data from the structured non-participant observation as well as assessment of the physical work environment. Research question three explored the experiences of deathcare workers in the Western Region on the management of infectious dead bodies, and whether they were in line with the deathcare industry regulations such as the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law). The fourth research question determined the on-site psycho-physical safety hazards experienced by the deathcare workers in the Western Region.

Using Colaizzi's descriptive phenomenological analysis approach, data was analysed using seven steps (Wirihana et al., 2018). This included step one - data organisation and familiarisation, step two - identifying and developing relevant codes, step three - examining the codes and formulating meanings, step four - formulating and developing relevant themes, step five - reviewing of themes based on the purpose of the study, step six - returning to the participants to verify and validate manuscript as well as organising the emerging themes using the NVivo version 14, and finally step seven -

developing a report (Silver, 2023a; Silver, 2023b; Wirihana et al., 2018; Zentner & Zentner, 2021). Step one, audio recordings from the field were transcribed into written text while the field notes were organised and well-ordered for easy understanding. This was followed by an integration of transcribed data and field notes (from both researcher and five Research Assistants [RAs]) into one complete text (Wirihana et al., 2018). To improve the emerging text and ensure its accuracy, audio recordings were played repeatedly to help correct all omissions in the text. Additionally, field notes were compared with the draft text to help fix all omissions (Wirihana et al., 2018). Finally, to help the researcher immerse fully into the data, the audio recordings were played again and again, and the draft text or transcript read repeatedly (Wirihana et al., 2018). This process was characterised by further note taking of all relevant issues.

Step two, the transcripts were thoroughly examined and the audio recordings played severally to establish patterns in the data (Wirihana et al., 2018). With the purpose of the study and research questions in mind, significant patterns observed in the transcript were developed into candidate codes. This was repeated over and over until several candidate codes emerged (Wirihana et al., 2018). Moreover, a coding manual was developed and used throughout the coding process. The candidate codes were screened to guarantee internal homogeneity among similar codes and external heterogeneity among different codes (Wirihana et al., 2018). Step three, all emerging codes were thoroughly screened to establish possible associations between them and also optimise the meanings therein (Wirihana et al., 2018). To ensure triangulation and homogeneity, all emerging codes were reassessed and aligned with the purpose of the study and research questions. Step four,

similar codes were grouped to form candidate sub-themes while similar sub-themes grouped into major themes (Wirihana et al., 2018). Guided by the purpose of the study and research questions, the sub-themes and major themes were thoroughly examined. Therefore, some sub-themes and major themes were dropped and others merged with similar ones (Wirihana et al., 2018).

Step five, all sub-themes and major themes were reviewed and carefully screened over and over to correct inconsistencies in the dataset. Additionally, peer-debriefing among the researcher and the five RAs were held for further triangulation in the data. These helped to further address inconsistencies, repetitions, and omissions in the transcript which strengthened trustworthiness of the study process. Step six, some participants were contacted to verify and validate some significant observations made in the dataset (Wirihana et al., 2018). This was done by reading and explaining to the participants how their views were captured and interpreted. Based on this, corrections were effected in the data to guarantee credibility and confirmability of the results. All emerging themes were organised using the NVivo version 14 (Silver, 2023a; Silver, 2023b; Wirihana et al., 2018; Zentner & Zentner, 2021). Step seven involved further reading of the whole transcript repeatedly with the research questions in mind. Finally, with the research questions and purpose of the study in mind, a detailed report was developed. Furthermore, participants were contacted a second time to confirm if their experiences have been accurately represented in the final report (Wirihana et al., 2018).

CHAPTER FOUR

RESULTS AND DISCUSSION

The purpose of the study was to examine the on-site safety practices and health experiences of deathcare workers in the Western Region of Ghana. The descriptive phenomenological design with observation approach was employed in the study. Using Colaizzi's descriptive phenomenological analysis approach, data on all the research questions were analysed using seven steps (Wirihana et al., 2018). These were: step one: data organisation and familiarisation; step two: identifying and developing relevant codes; step three: examining the codes and formulating meanings; step four: formulating and developing relevant themes; step five: reviewing of themes based on the purpose of the study; step six: returning to the participants to verify and validate the manuscript as well as organising the emerging themes using the NVivo version 14; and finally, step seven: developing a report (Silver, 2023a; Silver, 2023b; Wirihana et al., 2018; Zentner & Zentner, 2021).

Research Question 1: What is the Knowledge of Deathcare Workers in the Western Region on the MoH's OHS and IPC Policy Guidelines and Ghana's Labour Law?

This research question sought to determine the knowledge among deathcare workers in the Western Region about the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law in relation to the OHS of the workers. To achieve this end, 51 deathcare workers and 12 deathcare managers from 12 functional deathcare facilities were interviewed. One main theme with two sub-themes emerged from the data analysis. The main theme was inadequate knowledge of workers about the deathcare industry regulations, and sub-themes were: i) insufficient awareness of workers about deathcare industry regulations, and ii) poor knowledge of workers about

deathcare industry regulations. Figure 5 provides details of words used by deathcare workers during the interview on industry regulations. Meanwhile, personal factors such as level of formal education and personal beliefs were proposed as prerequisites for deathcare workers' awareness and knowledge and collective worker-manager responsibilities under the deathcare regulations (the IPC and OHS policies of the MoH and Ghana's Labour Law). Additionally, factors at the institutional level: lack of pre- and post-deployment training, inadequate in-service training and workshops, limited opportunities for further studies, and unclear procedures for recruitment contributed to the general poor awareness about industry policies among the workers.

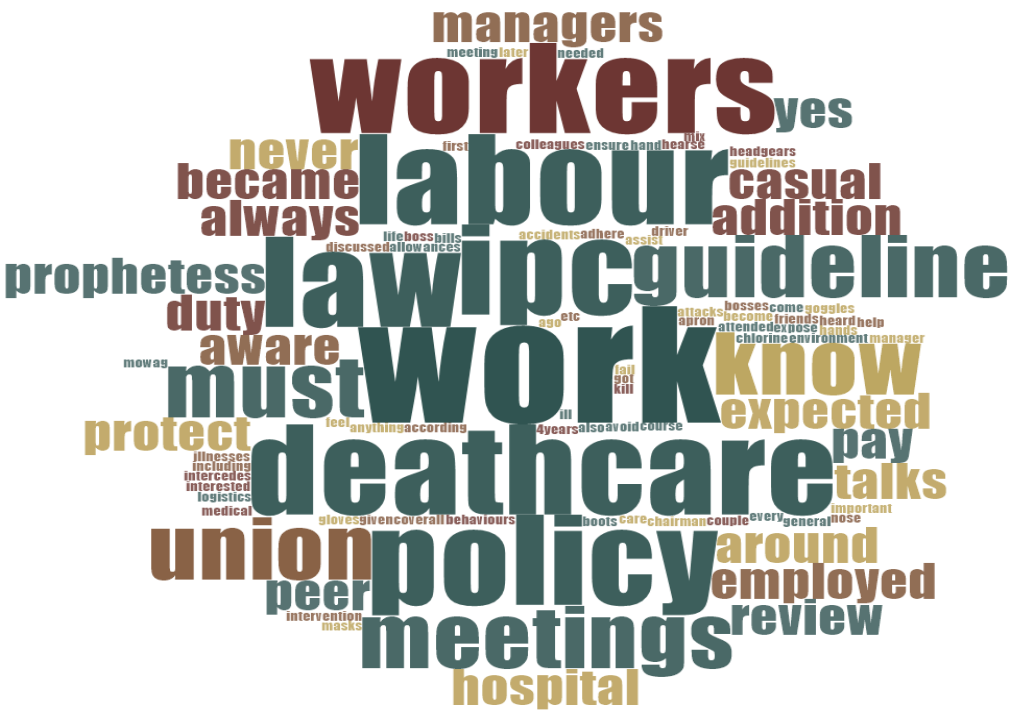

Figure 5: Words used by Deathcare Workers during Interview on Industry Regulations

Source: Word Cloud generated from the Qualitative Computerised Data Software, NVivo version 14 Plus

Main theme: Inadequate knowledge about the deathcare industry regulations

Three important policies provide a framework for protecting deathcare workers in Ghana, including those in the Western Region. These policies or frameworks include Infection Prevention and Control (IPC), Occupational Health and Safety (OHS) policy guidelines of the MoH, and the Labour Law, Act 651 (2003). Therefore, these deathcare workers are expected to be aware of and knowledgeable in these policies which regulate their work. Moreover, several studies (Botha et al., 2022; Donkor, 2012; Dumahasi, 2020; Ibrahim, 2018; Nyoh, 2015) reported association between awareness and knowledge and positive health behaviour change. Similarly, Esaah (2023) speculated that awareness and knowledge were at the heart of all efforts towards improving adherence to safety at work. However, findings of the current study suggested that deathcare workers in the Western Region were not sufficiently aware of the regulations, and that they had poor knowledge of the regulations that sought to protect them at the workplace. Though the Mortuary Workers Association – Ghana (MoWAG) in collaboration with the Mortuaries and Funeral Facilities Agency (MoFFA) and the Ghana Health Service (GHS) organised workshops once a year for senior deathcare workers in public deathcare facilities in the Western Region (Boateng, 2023), awareness and knowledge of the workers of these policies was sub-optimal. This is consistent with Botha et al. (2022) and Dumahasi (2020) who reported a disproportionately poor awareness and knowledge among mortuary attendants about the policies that regulated their work.

Sub-theme one: Insufficient awareness about deathcare industry regulations: Findings of the current study revealed that only a few (12 out of

51) of the workers, mainly from the public deathcare facilities, confirmed being aware of the existence of these policies. Workers union meetings were the main source of information on the Labour Law while awareness about the IPC policy guideline came through annual peer-review meetings and MoWAG workshops. However, no deathcare worker seemed to be aware of the existence of the OHS policy guideline. Although the MoWAG workshops (started in the year 2021) and the annual peer-review meetings at public health facilities had focused on IPC adherence among the workers (Boateng, 2023), they had so far failed to engender the desired awareness about industry policies among the workers.

Regarding this, a 41-year-old male deathcare worker, MA14SH6M, said:

> *. . . the first time I became aware of the IPC policy guidelines was during the peer-review programme. The Labour Law is also discussed at our union meetings so I know about it. But I do not know anything about the other one (OHS policy guideline). . . . I have never heard about it before. . .* (6 years as a deathcare worker).

Another respondent, a 51-year-old male deathcare worker, MA15MS10M, explained:

> *I became aware of the Labour Law about 4 years ago during workers union meeting . . . I was then a casual (casual worker). Our union chairman always referred to the Labour Law at our meetings. As for the IPC, it was during the peer-review meetings and the MoWAG workshops in Takoradi that I got to know about it.* (10 years, 4 months as a deathcare worker).

The narratives above affirm the findings of Adamu and Lawani (2018) (in Nigeria), Botha et al. (2022) (in Ghana), Douglas and Peterside (2016) (in

Nigeria), and Nyaberi (2014) (in Kenya) that mortuary attendants in Africa were not sufficiently aware about the policies that protected them. Meanwhile, Adamu and Lawani (2018) argued that formal education and personal beliefs of mortuary attendants predicted their awareness about the policies that protected them against adverse work conditions. Therefore, the workers were expected to possess basic professional qualifications, acquired through formal training that commensurate with their job to help neutralise none-protective personal beliefs about the work. Arguably, a deathcare worker with the requisite formal training in deathcare would have a better awareness about job related policies (Douglas & Peterside, 2016). However, several studies (Adamu & Lawani, 2018; Botha et al., 2022; Douglas & Peterside, 2016; Nyaberi, 2014) found that mortuary attendants in Africa had minimal education level and that translated into poor awareness about the industry policies. Affirming this, findings of the current study suggested that only 3 out of 51 (see Table 1) of the deathcare workers attained tertiary education degree, while many others were school dropouts. Moreover, seven out of 51 of the workers had no formal education at all, 24 out of 51 had only basic education.

The current study also found that institutional factors such as lack of pre- and post-deployment training, inadequate in-service training and workshops, limited opportunities for further studies, and unclear procedures for recruitment contributed to the general poor awareness about the industry policies among the workers. Apart from the MoWAG workshops organised for only senior deathcare workers in public deathcare facilities, the workers were not provided with pre- and post-deployment training.

Confirming this, a 46-year-old male deathcare worker, MA64SH5M, explained:

> *No, I was not given orientation and never attended any training since employed. I was a hearse driver but occasionally come around to assist my friends (deathcare workers) at this place before later employed by the hospital . . .* (5 years as a deathcare worker).

In reaction to this, a 52-year-old male deathcare manager, DM0125, retorted:

> *. . . this is how they are! No matter how much training you give them they would still deny knowledge about everything. You know, the problem with these people (deathcare workers) is their generally low level of education . . . in fact, some of them have no formal education at all and that is why they take everything for granted.* (Over 10 years as a deathcare manager).

The findings of the current study also support findings of several previous studies (Adamu & Lawani, 2018; Botha et al., 2022; Douglas & Peterside, 2016; Nyaberi, 2014) that mortuary attendants in Africa were recruited without any clear standards, they did not go through any form of pre- and post-deployment training, and did not attend in-service training and workshops. Meanwhile, previous studies (El-Sokkary et al., 2021; Esaah, 2023; Neuwirth et al., 2020) have reported a strong positive relationship between pre- and post-deployment training and awareness about safety hazards.

Sub-theme two: Poor knowledge about deathcare industry regulations: The relations between workers' knowledge of workplace policies and their optimum safety practices have been well reported (Appietu & Amuquandoh, 2017; El-Sokkary et al., 2021; Esaah, 2023; Farahat et al., 2015; Neuwirth et al., 2020; Wafa et al., 2018). However, findings of the current study revealed that very few (4 out of 51) of these deathcare workers, who were mainly from

the public deathcare facilities, could meaningfully describe how two of the regulations (IPC policy guidelines and Labour Law) relate to their work. Meanwhile, it was realised that none of the deathcare workers had copies (either soft or hard) of any of the three workplace OHS regulations.

In reaction to a question on this, a 39-year-old male deathcare worker, MA93SH5M, said:

> *The IPC policy guideline is important to us (deathcare workers) because it talks about wearing headgears, nose masks, the coverall, apron, goggles, hand gloves, and boots while on duty. In addition, it talks about how to mix the chlorine for every procedure. This will help kill the organisms around the work environment and protect us.* (5 years 2 months as a deathcare worker).

Furthermore, a male deathcare worker (a 48-year-old male: MA84JH11M) described their responsibilities under the Labour Law as:

> *We are expected to adhere to the rules and regulations regarding our work, protect ourselves while working, and avoid behaviours that will expose and threaten our life and that of colleagues. In addition to that, we are expected to report all accidents to our boss (deathcare manager).* (11 years, 7 months as a deathcare worker).

Another worker (a 37-year-old female deathcare worker, FD73N8F), described the responsibilities of deathcare managers towards the workers thus:

> *It is their (deathcare managers) duty to provide us with all the logistics (PPE, water, soap, sinks, etc.) needed for our work, ensure our security and safety while we are at work, and take care of our medical bills when we are ill. . . . They must be interested in our general*

> *welfare, including how we feel. . . . Yes, of course!* (8 years as a deathcare worker).

However, some of the workers could not meaningfully say how the regulations relate to their work. For instance, a 40-year-old female deathcare worker, MA04SH10F, said:

> *According to the IPC policy guideline, we (workers) must always wash our hands and. . . . Sorry, but that is all I could remember. Yes, the Labour Law says that our bosses (managers) must pay us the allowances which they fail to pay.* (10 years as a deathcare worker).

This finding upholds those of the previous studies (Adamu & Lawani, 2018; Botha et al., 2022; Douglas & Peterside, 2016; Dumahasi, 2020; Nyaberi, 2014) that found poor knowledge of workers about policies that regulated mortuary work among mortuary workers in Africa. Fortunately, findings of the current study suggested that all (8) deathcare managers at the public facilities and two at the private facilities had copies of the policies and were familiar with their contents to regulate deathcare work in the region. For instance, a 48-year-old male deathcare manager, DM0184, explained the responsibilities of the managers under the industry policies:

> *It is my duty to provide all that the workers (deathcare workers) need in the performance of their duties, provide a safe, decent, and supportive work environment, and ensure regular training and supervision. But, remember that these responsibilities are also subject to the availability of resources. . . . I cannot do everything, you know . .* . (Over 10 years as a deathcare manager).

Meanwhile, findings of the current study show that personal beliefs of the workers could also be contributing to their poor knowledge about the industry

policies. The workers held beliefs (spirituality in the deathcare industry) that did not engender a strong desire for knowledge about the policies that protected them. A worker, MA43SH5M, remarked:

> *I have a strong prophetess that intercedes for me whenever things become unbearable at work. I suffered a couple of strange illnesses that the hospital could not treat. It took the intervention of my personal prophetess before I recovered from those attacks.*

Another, a 43-year-old female deathcare manager, SHF0134, explained:

> *. . . they may not be knowledgeable in these regulations but they can do the job better than those with all these degrees. That is not to say that the policies and education are not necessary, but my point is that, you cannot do this job if you do not have a natural passion for it . . . it is a calling, yes. . . . Some guys (graduates) from the university came around to learn this job but could not stay beyond one month.* (Over 10 years as a deathcare manager).

Moreover, other researchers (Dumahasi, 2020; Geest, 2006) believed that there was usage of magical powers (juju) in mortuary work, which also limited the attempt of the workers to acquire the needed knowledge of the regulatory policies and how to protect their health and well-being at work. Given the beliefs held by some of the deathcare managers (SHF0134) about the workers in the current study, it could be speculated that the level of formal education of the workers was not a priority during recruitment.

Furthermore, pre- and post-deployment training had been widely reported as strong determinants of knowledge among workers (Akinyemi et al., 2021; Kumari & Kapur, 2018; Malik & Kamran, 2020; Pal & Patel, 2021). Typically, apart from the relevant knowledge possessed by a job seeker,

recruiters were required to organise pre-deployment training aimed at introducing new recruits to all relevant industry policies, to mitigate any negative beliefs held about the job (Kumari & Kapur, 2020; Pal & Patel, 2021). After the employee is fully immersed and is stable on the job, there is the need for regular post-deployment training to help update the knowledge of the employee about current industry policies and best practices. Contrary to this, the current study suggested that deathcare managers failed to organise such important pre- and post-deployment training for the workers. Moreover, there were no facility systems in place to ensure effective dissemination of the knowledge gained from the MoWAG workshops among the deathcare workers. Though most (10 out of 12) of the managers were aware of their responsibilities under the industry policies, to organise pre- and post-deployment training for their workers, there seemed to be no consequences for not doing so. For instance, a manager, DM0184, explained:

> *It is my duty to provide regular training and supervision of the workers, but I have not been able to do so as at the moment. . . . I will discuss it with the training coordinator for a clear way forward.*

Another manager, DM0125, said:

> *. . . this is how they are! No matter how much training you give them they would still deny knowledge about everything. They are very difficult to manage. . . . I am serious!*

The evidence is that Adamu and Lawani (2018) (in Nigeria), Botha et al. (2022) (in Ghana), Douglas and Peterside (2016) (in Nigeria), and Nyaberi (2014) (in Kenya) also found that managers failed to organise pre- and post-deployment training for mortuary attendants. This situation did not only create

lack of knowledge of important work procedures including policies, it also limited workers' use of protective measures.

The generally low level of formal education and negative personal beliefs of the workers could be contributory factors to the insufficient awareness and poor knowledge demonstrated by these deathcare workers. Additionally, factors such as lack of pre- and post-deployment training, unclear procedures for recruitment, and ineffective in-service training and workshops could be contributing to such inadequate knowledge levels.

Therefore, considering the insufficient awareness and generally poor knowledge about the IPC and OHS policy guidelines of the MoH and Ghana's Labour Law found in the current study, it could be speculated that deathcare managers in the Western Region, maybe failing in their obligations towards the deathcare workers. The implications of these findings on safety practices and general work conditions of the deathcare workers are dire. First, the workers may not be able to demand their right to protection and insist that such rights be upheld under the regulations. Unfortunately, this would encourage the managers to further renege on their responsibilities towards the protection of the workers. Thus, key responsibilities such as the supply of PPE, provision of pre- and post-deployment training, payment of risk allowance, supportive monitoring and supervision, and psycho-medical screening for the workers would suffer. Secondly, the workers may have no option other than to rely on their personal discretion in the performance of their duties which could result in poor safety practices and increase their level of exposure to hazards with associated injuries and illnesses. Figure 6 provides details of the coding structure for knowledge about deathcare industry regulations.

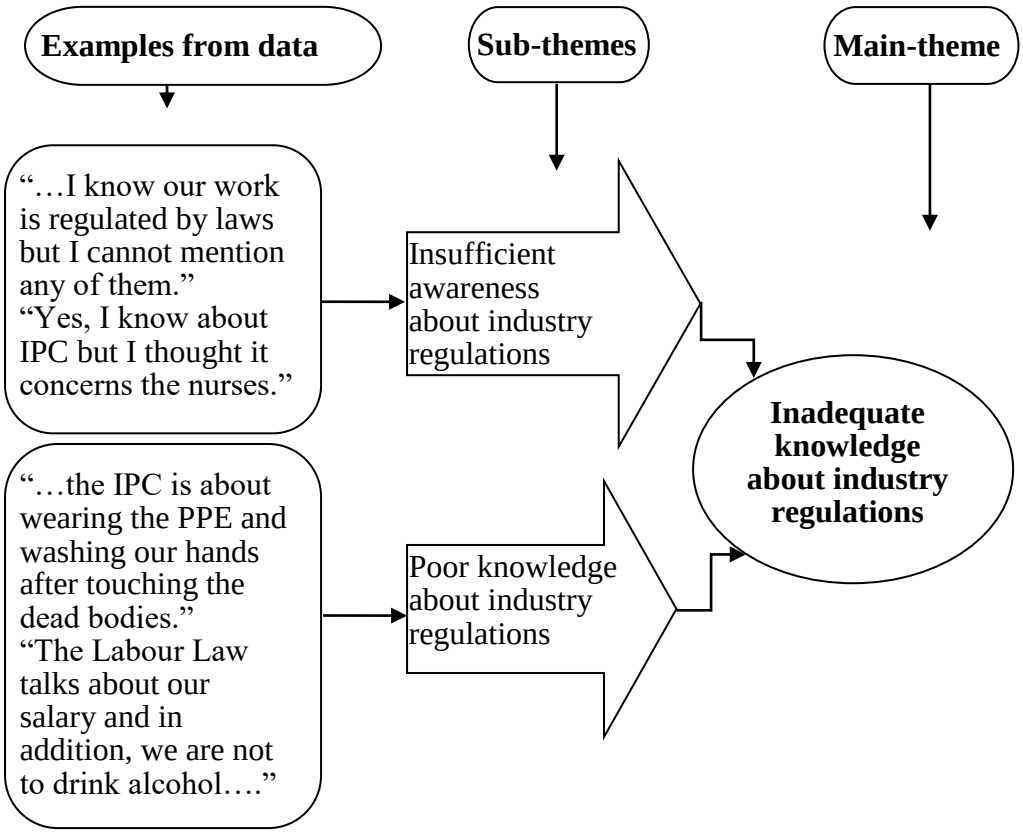

Figure 6: Coding Structure for Knowledge about Deathcare Industry Regulations

Research Question 2: What are the On-Site Safety Practices of Deathcare Workers in the Western Region?

This research question aimed at examining the on-site safety practices of deathcare workers in the Western Region, based on the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law. Consequently, observations were made of the work practices of these 51 deathcare workers from 12 functional deathcare facilities or mortuaries. Follow up interviews were conducted with all the workers and 12 of their managers based on the observations made.

The analysis produced one main theme and five sub-themes. The main theme was poor on-site safety practices, and the sub-themes were i) poor adherence to PPE use; ii) poor hand and personal hygiene practices; iii) unsafe manipulation of dead bodies; iv) increasing temperature and changing work

schedules; and v) involvement of informal deathcare workers. (Figure 7 provides details on words used by deathcare workers during interview on on-site safety practices.)

Meanwhile, personal factors such as knowledge about safety practices, PPE use, and chemical hazards were suggested as prerequisites for deathcare workers' safety practices and worker-manager responsibilities under regulations such as the MoH's IPC and OHS policies and Ghana's Labour Law. Additionally, institutional level factors included heavy workload, inadequate work space, inadequate supply of PPE, and lack of supportive monitoring and supervision.

Main theme: Poor on-site safety practices

The MoH's IPC and OHS policies and Ghana's Labour Law prescribed standards of practice for deathcare workers to prevent adverse work events and ensure adequate safety and protection for the workers. Therefore, deathcare workers in the Western Region were expected to uphold the safety protective measures in these policies in their work practices to mitigate the effects of work and workplace associated hazards on their health and well-being. According to the ILO (2020d; 2019) and WHO (2018), the essence of OHS policy is to guarantee adequate protection for all workers from hazards/stressors present within the work environment. To this end, employees were also expected to take personal responsibility for their own health through the adoption of healthy work practices that mitigate the impact of workplace hazards/stressors on their health and safety (ILO, 2019a; WHO, 2018).

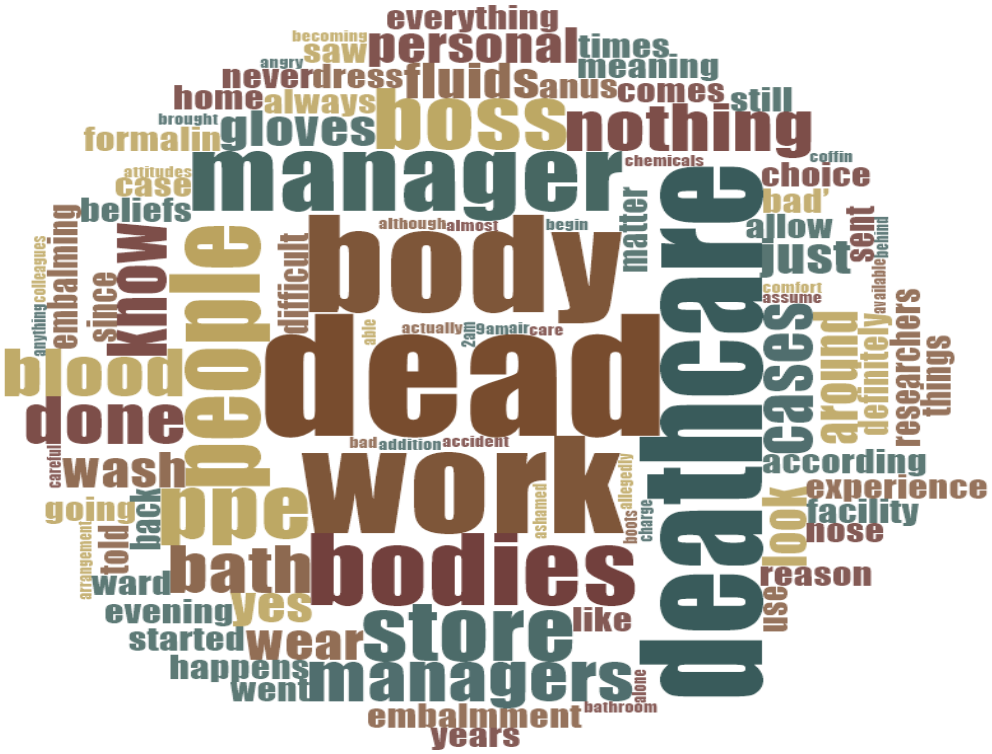

Figure 7: Words used by Deathcare Workers during Interview on On-Site Safety Practices

Source: Word Cloud generated from the qualitative computerised data software, NVivo version 14 Plus

Evidence suggests poor on-site safety practices among mortuary workers (Adamu & Lawani, 2018; Akinyemi et al., 2021; Botha et al., 2022; Kaledzi, 2020; Mridula & Ganesh, 2016). Affirming this, the current study found that the on-site safety practices of deathcare workers in the Western Region were generally poor, which predisposed the workers to multiple OHS hazards/stressors. Similarly, several previous studies (Aljerian & BaHammam, 2020; Dijkhuizen, Gelderman, & Duijst, 2020; ILO, 2020c; Eziagu et al., 2022; James et al., 2015; Malik & Kamran, 2020; Yardley et al., 2018) speculated that deathcare managers could help improve on-site safety practices of workers by intensifying supportive monitoring and supervision in areas such as PPE use, and hand and personal hygiene.

Sub-theme one: Poor adherence to PPE use: The importance of PPE use to deathcare work is widely reported (Akinyemi et al., 2021; Mridula & Ganesh, 2016; Ringane et al., 2019). Similarly, O'Keeffe (2021), Sugata et al. (2016), and Vidua et al. (2020) argued that proper use of PPE was an effective barrier to the exposure and transmission of deathcare-based infections, including hazards from chemical exposure. However, and contrary to the provisions of the MoH's IPC and OHS Policy Guidelines and Labour Law on PPE use, these deathcare workers failed to use the full complement of PPEs during work, especially when handling dead bodies and applying chemicals. Observation also revealed that many deathcare workers used their personal attire when picking dead bodies from the hospital wards, receiving dead bodies brought from outside the hospitals, when decorating dead bodies to be laid in state, embalming dead bodies, and mixing chemicals (formaldehyde and chlorine) to apply on the dead bodies.

During the interview, a 41-year-old female deathcare worker, MA14SH8M, remarked:

> *We have always done the work this way for years and I do not think we are in danger. Each of these dead bodies you see here comes from a community and family with unique beliefs, traditions and norms. Look, university education does not give you any special knowledge about this work, but rather your beliefs, faith, and experience.* (8 years as a deathcare worker).

However, a senior deathcare worker, MA15MS10M, assured:

> *. . . I do not allow that here . . . that any of my colleagues would handle the bodies or use chemicals without wearing PPE? I would not allow*

that as the in-charge. That could be how things are done elsewhere but not here . . .

Unfortunately, this senior worker was observed examining a dead body while wearing only personal attire and disposable gloves. He, MA15MS10M, exclaimed when confronted:

How did you know? Oh, so you people (researchers) were there with the relatives that evening? Meaning, you saw everything? I am sorry for what I did, but sometimes it is the pressure of work oo. . . . Honestly, I never knew you people (researchers) were there that evening. I am really ashamed of what I did!!! (He dropped his head to show a sign of shame.)

It was also found that some deathcare workers actually washed and reused disposable gloves when working on dead bodies, a situation blamed on the attitudes of other workers. A deathcare worker, MA64SH5M, fumed during the interview:

. . . I went to the store to request for gloves and I was refused because, according to the store people (personnel at the store), we (deathcare workers) were wasting the gloves. They (personal at the store) are very wicked people . . . nothing will improve here if this man (store keeper) is not posted out of this hospital.

This narrative upholds the finding from Adamu and Lawani (2018), Botha et al. (2022), Dartey et al. (2021), Douglas and Peterside (2016), and Litana and Kapambwe (2017) who also hypothesised that mortuary attendants in many parts of Africa failed to adhere to proper use of PPE during work. Thus, it was normal for these workers to handle dead bodies with their bare hands and walk around the morgue bare footed.

Furthermore, the current study shows that deathcare workers in the Western Region either did not have sufficient knowledge about donning and doffing PPE, or did not know the importance of wearing PPE while working on the dead bodies. Though some facilities had protocols on donning and doffing which could be seen posted on the walls for reference of the workers, adherence to proper donning and doffing was sub-optimal. This affirms findings from previous studies (Douglas & Peterside, 2016; Litana & Kapambwe, 2017) who reported improper donning and doffing of PPE among mortuary attendants. The reaction of the deathcare managers in the current study to the findings from the observations were mixed: while some of them accused the workers for being difficult and irresponsible, others attributed the situation to failure to recruit the right calibre of workers.

A manager, DM0125, said:

> *. . . they (deathcare workers) have an attitude that is difficult to deal with. We queried them severally for failing to wear PPE while handling the cases (dead bodies), but there is no change in their attitudes. They (deathcare workers) believed they are immune to diseases and nothing will happen to them . . .*

Another, manager, DM0125, remarked:

> *There is very little we can do to change their attitudes to safety given their educational backgrounds. They (deathcare workers) are not using the PPE because they do not understand the concept of safety . . . that is it. I mean . . . we need to start recruiting the right calibre of people, a minimum of a diploma will be ok.*

Consistent with findings by Adamu and Lawani (2018), Botha et al. (2022), Douglas and Peterside (2016), Mwangi (2019), and Nyaberi (2014), the above

narrative showed that the poor educational backgrounds of deathcare workers in the Western Region could have been influencing their poor adherence to PPE use during work. However, El-Sokkary et al. (2021), Esaah (2023), and Neuwirth et al. (2020) reported inadequate adherence to PPE use among medical officers, nurses, and other health workers who were considered well-educated workers and who had adequate knowledge of PPE use. Meanwhile, previous studies (Burch & Bunt, 2020; Davey, Lee, Robbins, Randeva, & Thake, 2020; Ford, 2021; Li, Pan, Yang, Zhou, & Wang, 2023) found an association between adherence to PPE use and heat. For instance, PPE were reported (Davey et al., 2020; Li et al., 2023) to trap heat and increase the burden of heat load on the body. Therefore, given the fact that poor adherence to PPE use had been reported among both the highly educated (Adamu & Lawani, 2018; Botha et al., 2022; Mwangi, 2019) and minimally educated (El-Sokkary et al., 2021; Esaah, 2023; Neuwirth et al., 2020), the role of heat in PPE adherence cannot be discounted (Burch & Bunt, 2020; Ford, 2021).

Sub-theme two: Poor hand and personal hygiene practices: Deathcare workers are required to strictly adhere to hand and personal hygiene practices at the workplace, because doing so prevents contact of the body with chemicals, dust, sweat, blood spills and other fluids, infections particles, and other elements could be picked up from the work environment (Dijkhuizen et al., 2020; ILO, 2020a; Kichloo et al., 2021; Malik & Kamran, 2020). Therefore, facilities such as sinks for hand washing and bathrooms must be available and functional at the mortuaries and other deathcare spaces. In addition, there must be regular flow of water, and adequate supply of soap and hand sanitizers.

Contrary to this, deathcare workers in the Western Region failed to practice good hand and personal hygiene at work. For instance, most deathcare workers practised social hand hygiene instead of antiseptic or surgical hand hygiene after handling dead bodies and chemicals. Moreover, most of the workers had visibly dirty finger nails (though not long) which might have been harbouring microorganisms. Meanwhile, the MoH's IPC and OHS Policy Guidelines strongly advocated a culture of good hand and personal hygiene practices among deathcare workers as effective protective practices against biological agents, dust, odour, and chemicals. However, it seems these essential facilities were not adequately provided and available at the deathcare facilities studied. A worker, MA84JH11M, explained:

> *. . . please, we do not have a bathroom here so we bath behind the morgue. Actually, this is the reason why we do not always bath after managing the cases (dead bodies) . . . although I know nothing would be done about this, I suggest you speak to our boss (deathcare manager) directly.*

Observation indicated that most of the workers did not bath after handling dead bodies, prior to going home, which could expose not only the workers to infections, but their families and members of the community as well. Moreover, some deathcare workers kept and wore personal attires at work but failed to wash them regularly. These attires did have strong odour of formaldehyde. Besides, such attires were seen hanging at various points within and outside the facilities. In reaction to this, a deathcare worker, FD73N8F, remarked:

> *. . . yes, it is my personal dress I brought from home which I used for work. The nature of the case (dead body) would determine whether I*

wash or bath. If it is a bad case (decomposing, accident, exhumed, or infectious dead body), then I would wash the dress and bath very well before going home.

These narratives agree with findings of previous studies (Adamu & Lawani, 2018; Botha et al., 2022; Dartey et al., 2021; Douglas & Peterside, 2016; Litana & Kapambwe; 2017) that observed that mortuary attendants in Africa did not bath after handling dead bodies. This is because most mortuaries in Africa lacked the facilities that supported and promoted proper adherence to hand and personal hygiene. Consistent with this, observational assessment of deathcare installations in the Western Region revealed that very few (3) have adequate facilities to support and promote proper hand and personal hygiene practices among the workers. Generally, sinks for washing the hands and bathrooms were either lacking, non-functional, or woefully inadequate. Even at deathcare installations where sinks for hand washing were provided, none of them had elbow operated taps recommended by the MoH's OHS and IPC Policy Guidelines. Unfortunately, available veronica buckets were observed to have broken down. A 28year-old female deathcare worker, FD82JH7F, said:

. . . what have I to say again? You (researcher) saw everything yourself. . . . We are expected to wash our hands under running water, but what do you do if the taps are not flowing? Look, I have lost count of the number of times we reported our problems to our boss (deathcare manager) yet nothing has been done . . . and I know they will never do anything about it. I can predict that their (managers) attitudes toward us will be worse should they get to hear of the things we told you. (7 years as a deathcare worker).

This sounded like a hopeless situation faced by these workers. Interestingly, about an hour after making this remark, the worker, FD82JH7F, was summoned by the manager to give details of the interview granted the researcher. Describing to the researcher her experience with the manager, FD82JH7F, she explained:

> *. . . my boss (manager) invited me to debrief her on what went on during your (researcher) interaction with us (deathcare workers) . . . and she was not happy about the feedback she had from you (researcher). I wished you had not disclosed to her (manager) some of the things we told you (researcher). . . . She accused us (deathcare workers) of painting her black . . .*

In reaction to the poor hand and personal hygiene practices of the workers and the generally poor state of hygiene facilities, a deathcare manager, DM0184, exclaimed with both hands flying in the air:

> *It is unfortunate . . . I would see what I can do about it. While I admit that management owes it a duty to provide them with the facilities, they (workers) must also be responsible for their own personal safety and protection . . . if for nothing at all, Covid should have taught them a lesson or two about hygiene. I will meet them together with the IPC Coordinator for a way forward on your (researcher) findings and recommendations.*

Though availability of functional hand and personal hygiene facilities and materials (soap, sanitizers, detergents, and disinfectants) are prerequisites for good hand and personal hygiene practice, adherence among workers at deathcare installations was not any different. This finding agrees with that of Botha et al. (2022) who found that though private morgues had adequate

number of functional hand and personal hygiene facilities and other supporting materials, hand and personal hygiene practices of the attendants were sub-optimal. Such situation did not only increase the infection rate among the workers, they might be sources of infection of others.

Sub-theme three: Unsafe manipulation of dead bodies: Generally, deathcare workers are at risk of exposure to body fluids and blood-borne elements ejected from the oral, nasal and other orifices of dead bodies, especially during embalmment and autopsy (Ringane et al., 2019; Sugata, Miyaso, & Osaka, 2016; WHO, 2021b). Findings from previous studies (O'Keeffe, 2021; Vidua et al., 2020) suggested that, typically, the nose, skin, mouth, and anus were the orifices from which fluids and blood-borne elements emerged when the dead bodies were being handled. Thus, it was recommended that those parts of the dead body be properly plugged with cotton seals and other suitable materials during processing. Therefore, Akinyemi et al. (2021) and Ringane et al. (2019) described drugging, pulling, pushing, and improper lifting of fresh dead bodies as high-risk activities and should be avoided by the workers.

Another finding of the current study was that deathcare workers in the Western Region failed to observe precautions when handling dead bodies, resulting in the splashing of body fluids and blood into their faces and other parts of their body. There were instances where cottons seals used to plug the orifices were occasionally forced out due to the pressure that built up within the dead bodies, resulting in the discharge of faecal matter and blood-borne elements. These incidents normally occurred during embalmment, when lifting and placing the bodies on the shelf, and also during decoration of the dead bodies to be laid in state. This affirms findings by Adamu and Lawani (2018) (in Nigeria), Botha et al. (2022) (in Ghana), Douglas and Peterside (2016) (in

Nigeria), and Nyaberi (2014) (in Kenya) who reported that mortuary attendants failed to observe standard precaution during embalmment resulting in exposure to body fluids, including blood, from the dead bodies. Unfortunately, such exposures could be very infectious and detrimental to the health and well-being of the worker (Sugata et al., 2016; WHO, 2021b). However, to some deathcare workers, direct exposure to body fluids and blood-borne elements of the dead were considered part of their work and could not be avoided. A deathcare worker, MA14SH8M, indicated how normal this situation was considered when he remarked:

> *Splashes are unavoidable in this job (deathcare work) . . . no matter how careful you are, you will still experience it. I have been exposed to body fluids and blood several times since I started this work. This normally happens when I had to lift the dead body all alone unto the shelf . . . the blood and body fluids will definitely drip on you. When we suggested to our boss (manager) that we needed an elevator, he got angry and said we were looking for comfort. So, what does that mean? He (manager) definitely does not care about what we are going through . . . our protection comes from God, yes!*

The mind-set held by both the workers and managers in this narrative may negatively influence the attitude of the workers to standard precaution when manipulating dead bodies. Accepting splashes of body fluids from dead bodies as a normal part of deathcare work goes against the safety precautions recommended by the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law. Furthermore, it was observed that procedures involved in decorating and positioning of dead bodies before laying them in state could

increase direct body contact and thereby risking exposure to body elements. To this, a 30-year-old male deathcare worker, FD03JH4M, said:

> *Manipulating the dead body to assume a particular posture for public viewing can be difficult and usually results in the ejection of fluids, blood, and faecal matter from the nose, mouth and anus. The last one we did was to position the dead body as a footballer, and by the time the body was to be placed in the coffin, blood started coming from its nose and anus.* (4 years as a deathcare worker).

In reaction to the observations made and remarks of the workers, a 52-year-old male deathcare manager, DM0125, explained:

> *. . . I accept that we have to train them (the workers) how to manipulate the dead bodies without experiencing splashes. Since it has become very fashionable for families in Ghana to have their dead relatives decorated and positioned in a particular way during lying in state, there is need to protect our workers against diseases. I am committed to that . . .* (Over 10 years as a deathcare manager).

This narrative affirms previous studies by Kumari (2021) and Vidua et al. (2020) who reported that certain diseases such as SARS-CoV-2 could be active in sputum, faeces, and eye fluids of infected dead bodies. Therefore, direct contact with such body elements must be avoided because such exposures would compromise the health, safety and well-being of the worker and the society, and denigrate the deathcare industry.

Sub-theme four: Increasing temperature and changing work schedules: Increasing temperatures (NFWM, 2021; Pal & Patel, 2021; Smith, 2019) are influencing work capabilities and productivity of workers globally. According to de Lima et al. (2021), Kim et al. (2019), and Kjellstrom (2016), increasing

ambient heat and humidity were compelling workers to embrace more favourable working schedules as effective mitigation strategies. Meanwhile, the ILO's decent work for all agenda (ILO, 2020b), the MoH's IPC and OHS policy guidelines and Ghana's Labour Law provide that work should be done under conditions that uphold freedom, efficiency, and human dignity. Fortunately, findings of the current study suggest that deathcare workers in the Western Region were adopting more favourable working schedules in response to the increasing ambient heat and formaldehyde use and related effects on the health and safety of the workers.

Although the facilities still provided 24-hour service, the workers had rescheduled some deathcare procedures, including embalming, from the previous 0830 (8:30 a.m.) to 1700hrs (5:00 p.m.) to now 0200hrs (2:00 a.m.) to 0900hrs (9:00 a.m.). This was after the managers had failed to respond favourably to the request for air conditioners to be fixed in the embalming rooms. Meanwhile, as a result of increasing ambient temperature, it became very difficult for the workers to adhere to proper PPE use because of increased heat, thereby leaving them exposed to both biological and chemical hazards. Furthermore, it emerged that due to the volatile nature of formaldehyde, the main chemical used during embalmment, it was difficult to process the dead bodies under high temperatures. A 43-year-old male deathcare worker, MA34PS8M, explained:

> *It was becoming almost impossible for us to embalm the cases (dead bodies) during the day because of the heat, in addition to the strong vapour from the formalin we use. This is part of the reason we do not wear the PPE when doing the embalmment. . . . I completely understand that the PPE would protect us from the formalin and other*

diseases but it was just difficult for us to wear them. (8 years, 4 months as a deathcare worker).

Another worker, MA14SH6M, said:

. . . for the past five years I have been pleading with our boss (manager) to fix air conditioner in the embalming room but he ignored me. Since they (managers) have decided not to show any concern about our work conditions, we took the decision to rearrange the timing for embalming the cases (dead bodies). By the new arrangement, we begin embalmment around 2a.m. and stop around 9a.m . . . today, we are able to process far more cases (dead bodies) than we did previously.

Meanwhile, this change in the work schedule was not officially communicated to the deathcare managers for their input and approval. Given that the new arrangement could have implications for the safety and security of the workers, it would have been better for the managers to official sanction and take responsibility for it. There might be the need for providing security for the workers since they, at the time, carried out some of their services at night. At this time, there were no systems in place for providing emergency medical care for the workers in case of a serious accident between 0200hrs and 0700hrs. Moreover, the possibility of physical attack on the workers was also real since the deathcare facilities did not have security. In reaction, a manager, DM0184, said:

They have complained about the heat but did not mention to me that they had introduced changes to their work schedules . . . they should have sought permission to do that. I will meet them (the workers) to discuss a way forward on this . . . even if it means fixing an air conditioner in the embalming room, we would consider it. I am not

happy about this development because we (management) need to be sure of what they do at work and ensure discipline at the place. . . . I know what I am talking about. These guys (deathcare workers) can be clandestine in their operations and by the time we know it, something bad would have happened.

Unfortunately, it looked as though the manager was concerned about their authority, so the manager blamed the workers more for not respecting their authority instead of concern for the health and safety of the workers. While the above-narrative seems to be lacking in the literature on deathcare workers, the findings cohere with previous studies (de Lima et al. (2021) (in Africa) and Frimpong et al. (2020) (in Ghana) who found that farmers were rearranging and adopting more favourable work schedules due to increasing heat. Other previous studies that reported similar findings, include Pal and Patel (2021) (across the globe), Smith (2019) (in the United States of America), Pogačar et al. (2017) (in Slovenia), and Spencer et al. (2022) (in Gambia). However, consistent with other previous studies (Grayson & Oza, 2023; Guenel & Leger, 2023; Silva & Costa, 2023), while the new work schedule maybe an effective heat mitigation strategy adopted by deathcare workers, their natural biological rhythms could be disturbed with potential risk of digestive and psychological disorders. According to Guenel and Leger, the human body has been naturally set on a 24-hour path that allows for adequate rest around a certain period. Therefore, as these deathcare workers work at odd hours without rest, the natural biological rhythms of their bodies will be disoriented, depriving their bodies of sufficient rest, which could trigger exhaustion and burnout, indigestion, stress, lower cortisol secretion, and increased blood pressure and heart rate. Thus, if not properly managed, this

could lead to short-to-long-term adverse health consequences to the deathcare workers affecting work productivity and even family unity (Guenel & Leger, 2023).

Sub-theme five: Involvement informal deathcare workers: International labour regulations (ILO, 2020b; ILO, 2022; ILO, 2020d; ILO, 2019b) provide for the full protection of all working people, regardless of the nature of their recruitment. Therefore, there are moral and legal obligations on managers to ensure that all workers are properly recruited and their activities fully sanctioned (ILO, 2020b; ILO, 2022). Meanwhile, there is a global surge in the number of unauthorised volunteer workers in many industries (Barrett & Sargeant, 2016; Bretones, 2020; Henslin, 2023; Sherratt, Crapper, Foster-Smith, & Walsh, 2015). Similarly, the deathcare industry in Africa is replete with volunteer workers whose operations are not sanctioned or recognised by the deathcare facility managers (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Litana & Kapambwe; 2017).

The current study found many informal deathcare workers who have become an integral part of the deathcare industry in the Western Region. There were three different categories of this group. The first group comprised persons employed as cleaners or scavengers who worked at various departments of the hospitals, but who were later deployed to the morgues as punishment for committing some offenses. The second group had persons employed as cleaners or scavengers who worked at various departments of the hospitals, but on their own volition offered to help at the deathcare facilities. The third group comprised persons from within the community who were not staff of the hospital, but had decided to learn the deathcare trade. The first-two groups were found in only public deathcare facilities while the third group was

found in both public and private facilities. These persons (the second and third groups) were known in the deathcare industry as "helpers". These persons were observed undertaking various duties, including assisting during embalmment and decoration of dead bodies without adequate protection against hazards. It emerged that while some of these workers (first group) were very bitter about being redeployed to the deathcare facilities, others felt it was better than their previous duty post. For instance, a 39-year-old male deathcare worker, MA83JH93M, exclaimed, almost crying:

> *I was sent here (deathcare facility) as punishment for allegedly insulting a nurse in the ward. After spending two weeks here, I went back to our boss (nurse manager) and pleaded to be sent back to the ward, but he told me to resign if I was not prepared to work here (deathcare facility). I have no choice so I am still here . . . though I am not happy about it.* (3 years 8 months as a deathcare worker).

Another, a 46-year-old male deathcare worker, MA80PS64M, said:

> *. . . so, this place is like a refuse dump where they send 'bad' people, according to them (deathcare managers). Meaning, the rest of us here are 'bad' people too. Just imagine the kind of mind-set they (deathcare managers) have about us.* (8 years as a deathcare worker).

The punishment to become a mortuary attendant was one issue that bothered the workers as they thought it was disrespectful, discriminatory, and deepened a long-held stigma against deathcare work and the workers. Unfortunately, the managers who were supposed to be promoting and protecting the best interests of the workers were the very people labelling deathcare work as a punishment. This had created a sense of mistrust and loss of confidence in the managers by the workers. Clearly, the workers appeared

to be left on their own since there seemed to be no trustworthy person to champion their course.

This narrative affirms findings of previous studies (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Litana & Kapambwe; 2017) who also reported informal mortuary attendants in both public and private morgues. Moreover, consistent with Adamu and Lawani (2018) and Litana and Kapambwe (2017), findings of the current study showed that these workers (second and third groups) ignored caution as they tried to impress the officers-in-charge of deathcare facilities and demonstrate that they were not afraid of doing the job. As a result, these groups of workers have become highly susceptible to various hazards as they undertake tasks without observing standard precautions.

In reaction to the observations, a manager, DM0125, explained:

> *We (management) have not reassigned them (first group) to the morgue as punishment, but rather to change their duty post for a while; it is not a punishment, no! I do understand that mortuary workers are human beings too, and so, whoever (first group) is assigned there should not complain.*

Contrary to the MoH's IPC and OHS policy guidelines and Ghana's Labour Law and international labour regulations (ILO, 2020b; ILO, 2022; ILO, 2020d), findings of the current study revealed that these informal deathcare workers shared reusable PPE with the main deathcare workers, risking exposure to infections. Regarding this, again, MA83JH93M, explained:

> *I do not have my personal PPE. . . . I just look around and wear the available boots, coverall, and utility gloves that fit me. Yes, I know I*

can contract a disease from using the PPE of others, but I have no choice. But, we pray nothing like that should happen.

Though the presence of these informal deathcare workers would augment the number of personnel available for work and reduce the workload, their activities could expose them and others to health-threatening hazards. Given the fact that management did not officially know about their presence (second and third groups), no provision was made for their PPE and safety. The situation left the workers vulnerable to physiological and psychological hazards. Also, they could be tempted to engage in illegal activities such as extortion and become potential traders in human body parts.

The inadequacy of knowledge about safety practices, including PPE usage, and chemical hazards, heavy workload, inadequate work space, inadequate supply of PPE, and lack of supportive monitoring and supervision are factors that could contribute to the general poor on-site safety practices of deathcare workers in the Western Region. Given the poor adherence to PPE usage, poor hand and personal hygiene practices, unsafe manipulation of dead bodies, changing work schedules due to heat, and role of informal deathcare workers found in the current study, it could be suggested that the workers and their managers had failed in their collective worker-manager responsibilities provided under the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law towards the protection of the health and safety of the workers.

Findings of this study have implications for the health, safety and well-being of the deathcare workers. For instance, the workers could be exposed to multiple psycho-physical hazards with short-to-long term implications for their health and well-being. This possibility is real, given that there are no sustainable mitigation strategies in place for these adverse findings in the

short-to-long term. Additionally, the apparent lack of supportive monitoring and supervision at the deathcare facilities resulting in a wide application of discretion by the workers in the discharge of their duties could create a negative safety culture which may influence the attitudes and practices of even new recruits. Therefore, it is important that graduates with backgrounds in Mortuary Science and Funeral Studies are recruited and assigned to supervise deathcare facilities in the Region. This would ensure better oversight for all activities at the deathcare facilities and reduce the wide discretion applied by the workers. Moreover, deathcare managers should encourage and grant study leave to workers who qualify to pursue programmes in Mortuary Science and Funeral Studies. This would help promote professionalism in the operations of the workers and reduce the incidence of exposure to hazards. Additionally, MoFFA, MoWAG and GHS need to extend their training to cover all deathcare workers in the Western Region. Also, MoFFA needs to perform quarterly assessments of deathcare facilities with the view to improving the work environment of the deathcare workers. Figure 8 provides details on coding structure for on-site safety practices of deathcare workers.

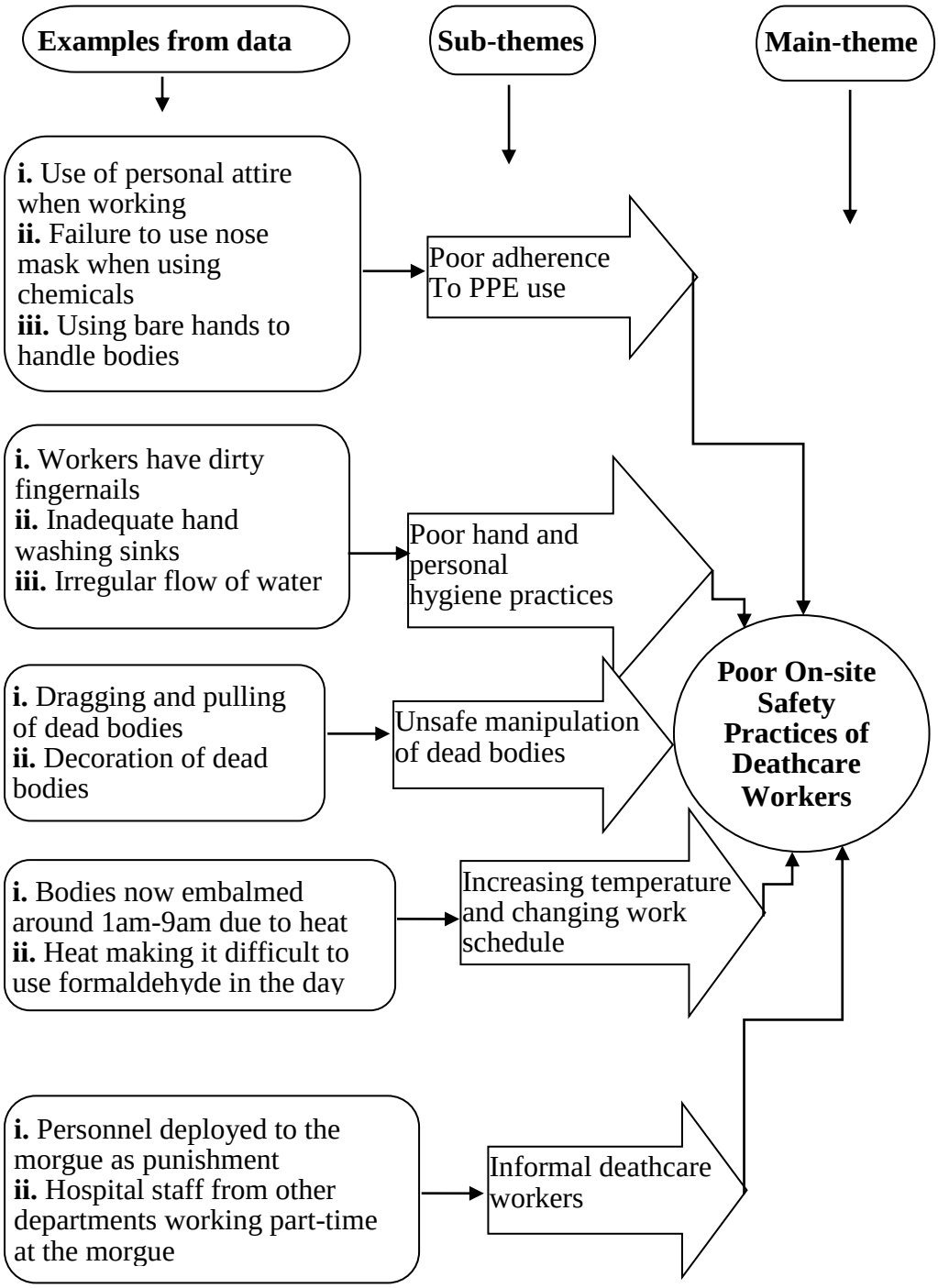

Figure 8: Coding structure for On-Site Safety Practices of Deathcare Workers

Research Question 3: How are Infectious Bodies Managed by Deathcare Workers in the Western Region?

The goal of this research question was to explore how infectious dead bodies were managed by deathcare workers in the Western Region, and whether their management was in line with regulations such as the MoH's IPC

and OHS Policy Guidelines and Ghana's Labour Law). Towards this end, 51 deathcare workers and 12 deathcare managers from 12 functional deathcare facilities were interviewed. In addition, all deathcare facilities were assessed to determine their suitability for managing infectious disease dead bodies. Using the thematic analysis approach, data were analysed using six steps: data organisation and familiarisation, developing relevant codes, developing relevant themes, review of themes, defining themes and running thematic analysis using the qualitative computerised data software, NVivo version 14, and developing a report.

Two main themes and six sub-themes emerged from the data analysis. Theme one was ill-preparedness in handling infectious bodies. The sub-themes were: i) lack of facilities for infectious bodies, and ii) inadequate training for deathcare workers to handle infectious dead bodies. Theme two was inadequate measures towards protection against infectious diseases. The sub-themes were: i) inadequate supply of PPE; ii) inadequate and non-functional hand and personal hygiene facilities; iii) inadequate psycho-medical screening; and, iv) inadequate supportive monitoring and supervision. Figure 9 provides details of words used by deathcare workers during interview on management of infectious dead bodies.

Additionally, personal factors such as knowledge about infectious diseases, PPE use, and biological and chemicals hazards prerequisites for the safe management of infectious dead bodies by deathcare workers and collective worker-manager responsibilities under the deathcare regulations (the MoH's IPC and OHS Policies Guidelines and Ghana's Labour Law) were implicated. Moreover, other influencing factors at the institutional level included pre- and post-deployment trainings, supply of PPE, availability of

hygiene facilities, availability of facilities for holding infectious dead bodies, psycho-medical screening, and supportive monitoring and supervision.

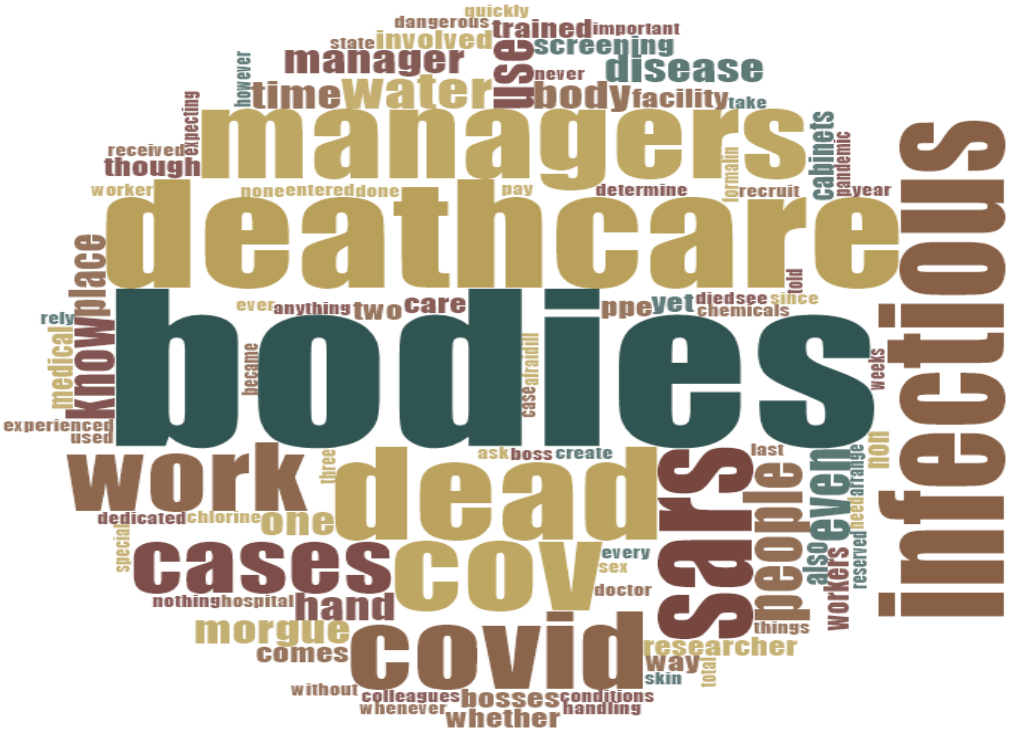

Figure 9: Words used by Deathcare Workers During Interview on Managmet of Infectious Dead Bodies

Source: Word Cloud generated from the qualitative computerised data software, NVivo version 14 Plus

Theme one: Ill-preparedness in handling infectious bodies

The MoH's IPC and OHS Policy Guidelines provide that deathcare workers must be adequately prepared for safe handling of infectious dead bodies, to protect the workers from contracting the infections. Therefore, deathcare workers in the Western Region were expected to be adequately prepared to safely handle infectious disease dead bodies and be protected against contracting diseases from such dead bodies. According to PAO and WHO (2020) and Yaacoub et al. (2020), procedures for managing infectious dead bodies differ significantly from those for non-infectious dead bodies. Typically, personnel responsible for handling infectious dead bodies must be deliberately trained and oriented (including psychological orientation) and

adequately resourced with PPE and that facilities that guarantee adequate protection for the workers against infections.

Unfortunately, previous studies (James et al., 2015; Molewa et al., 2021) found that mortuary workers in Africa were generally ill-prepared to safely handle infectious dead bodies because there were no systems in place to protect the workers from contracting infections. Compared with deathcare workers in the advanced countries (PAO & WHO, 2020; Yaacoub et al., 2020), deathcare workers in Africa were disproportionately at higher risk of contracting infections (such as Cholera, Sars-CoV-2, Ebola, Lassa, and Dengue fevers) from infectious dead bodies (James et al., 2015; Molewa et al., 2021). This implies that mortuary workers in Africa need adequate knowledge and resources for safe handling of infectious dead bodies. In consonance with this, the current study found that deathcare workers in the Western Region were not properly trained, oriented and resourced to safely manage infectious dead bodies. This theme produced two sub-themes: i) lack of facilities for infectious bodies, and ii) inadequate training for deathcare workers.

Sub-theme one: Lack of facilities for infectious bodies: Typically, deathcare installations are expected to have dedicated facilities that separate and hold infectious dead bodies from non-infectious ones (PAO & WHO, 2020; Yaacoub et al., 2020). These storage facilities must be uniquely designed to reduce exposure of the workers to the blood and other body fluids from the dead bodies. For instance, shelves in the holding area must be easily accessible and within shoulder level (about 4 feet) to prevent body fluids and other blood elements from the dead bodies dripping on the workers (James et al., 2015; Molewa et al., 2021). This is consistent with what pertains in the developed countries where mortuaries have been designed with dedicated facilities to

separate and hold infectious dead bodies (Akinyemi et al., 2021; Mridula & Ganesh, 2016; Ringane et al., 2019).

The recommendations from the MoH's IPC and OHS Policy Guidelines are that infectious dead bodies should be separated from the non-infectious ones to reduce cross-infection which could pose a significant threat to the health and safety of the workers and others who may work on the dead body. However, inconsistent with these requirements, previous studies (Adamu & Lawani, 2018; Botha et al., 2022; Douglas & Peterside, 2016; Litana & Kapambwe, 2017) reported that mortuaries in Africa had no facilities for holding and clearly separating infectious dead bodies from the non-infectious ones. Affirming this, the current study also found that deathcare installations in the Western Region had no facilities for holding and separating infectious dead bodies. Therefore, the workers were compelled to use the same holding facility for both infectious and non-infectious dead bodies, a situation that could escalate the risk of cross-infection in the holding area. In response to this, a 53-year-old male deathcare worker, MA28MS53M, said:

> *Though there is no dedicated cabinet or slot for such bodies (infectious bodies) we are able to re-arrange the bodies (non-infectious) to create space for them (infectious bodies). For instance, whenever we received information that such a dead body was coming, we quickly re-arrange the other dead bodies (non-infectious) and reserved some cabinets for it . . . we do not mix such bodies (infectious bodies) with the general ones (non-infectious). (8 years, 2 months as a deathcare worker).*

Another respondent, a 43-yr-old male deathcare worker, MA60JH34M, disclosed:

> *. . . so let me use the Covid (Sars-Cov-2) as an example. So, look at these cabinets, those four on the extreme right were reserved and used for the Covid (Sars-Cov-2) bodies. Though we were told that the Covid (Sars-Cov-2) bodies would not be kept at the morgue, we did hold some . . . for three weeks and even more in some cases.* (6 years as a deathcare worker).

The above narratives clearly revealed that the deathcare workers in the Western Region used their own discretion in creating space for holding infectious dead bodies, a situation that goes against prescriptions of the MoH's IPC and OHS Policy Guidelines and increases the risk to health and safety of the workers. For instance, a previous study (Douglas & Peterside, 2016) suggested that morgues in Nigeria had no dedicated facilities for holding infectious dead bodies. Therefore, mortuary attendants used their discretion in deciding how infectious dead bodies were stored until they were ready for burial. Meanwhile, according to the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law, deathcare managers were ultimately responsible for ensuring that deathcare installations had dedicated facilities for holding infectious dead bodies. Unfortunately, deathcare managers in the Western Region failed in their obligations to provide facilities for separating infectious dead bodies from the non-infectious ones. In reaction, a 41year-old male deathcare worker, MA44JH14M, observed:

> *No, we have no dedicated facility for holding infectious dead bodies such as Cholera and Covid (Sars-Cov-2) bodies. However, what we do whenever such a case (infectious body) comes is to quickly empty some of the slots (cabinets) for use. That is the only way for now. . . . I know this is not the ideal, but what do we do when the facilities are there? By*

the way, we hardly receive such cases here. (4 years, 4 months as a deathcare worker).

Another respondent, a deathcare manager, MA83JH93M, explained:

Although we do not have a separate facility for storing infectious cases (dead bodies), the workers have a way such cases are preserved until we dispose of them. This facility has been in use for over 60 years now and yet we have no record of any worker contracting infectious disease from the cases (dead bodies). Management is thinking of renovating the facility and we would factor infectious cases (dead bodies) in the design. You (researcher) would see major changes on your next visit to this place (deathcare facility).

These narratives are consistent with Adamu and Lawani (2018) (in Nigeria), Botha et al. (2022) (in Ghana), Douglas and Peterside (2016) (in Nigeria), and Nyaberi (2014) (in Kenya) who reported that morgues across the African continent were designed without provision for infectious dead bodies. Unfortunately, the current study found that both the workers and their managers did not seem to realise the seriousness of the gap in the design of the facilities and how that threatened the health and safety of the workers. Here is the reaction of a deathcare worker, MA84JH11M:

. . . is that the case? We handled all manner of cases (dead bodies) here and none of us has contracted any disease. Even during the time of Covid (Sars-Cov-2) when everyone was afraid of the disease, we received and stored Covid cases (Sars-Cov-2 fatalities), and yet none of us became ill or died from the disease. Whether our boss (manager) create a special place for such cases (infectious dead bodies) or not, I

can say that we are capable of handling such cases (infectious bodies) without any problem . . . this is our job, so we know what to do.

Clearly, both the managers and workers need to be trained on the provisions in the MoH's IPC and OHS Policy Guidelines regarding the management of infectious dead bodies. This would help correct some misconceptions the managers and their subordinates held about the handling of infectious dead bodies. Meanwhile, there are records of medical screenings conducted for the workers to establish whether any of them contracted a disease from the dead bodies. Therefore, it is difficult to accept the claims by the managers and their workers that no worker became ill from a disease contracted from a dead body.

Sub-theme two: Inadequate training for deathcare workers: The MoH's IPC and OHS Policy Guidelines strongly recommend regular training of deathcare workers in the management of infectious dead bodies. Similarly, Kumari and Kapur (2018), Malik and Kamran (2020), and Pal and Patel (2021) suggested that such training should be done beforehand and must cover areas such as proper use of PPE, preparation of Chlorine and Sodium solutions, handling of infectious dead bodies (from Cholera, Ebola, Lassa, Dengue, and Sars-Cov-2), hand and personal hygiene, and effective coping strategies. However, findings of the current study revealed that these deathcare workers were not trained to effectively manage infectious dead bodies. Therefore, the workers lacked the knowledge required to safely handle infectious dead bodies without compromising their health and safety. The current finding aligns with findings of previous studies (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Nyaberi, 2014) that reported similar findings among mortuary workers in Africa.

Although MoWAG organised IPC training for senior deathcare workers of public facilities, these training sessions were not specific to handling infectious dead bodies. Unfortunately, deathcare workers in private facilities had been excluded from the MoWAG training sessions. Additionally, there were no systems in place to ensure effective dissemination of lessons learnt at the MoWAG training sessions among the generality of the deathcare workers. It was further observed that while IPC training sessions were organised for workers in public hospitals during peer-review meetings, there were no deliberate and comprehensive training sessions targeting deathcare workers alone. Meanwhile, the job description of deathcare workers were specifically different compared with other units at hospitals (De Jesus & Barnhill, 2023; Goodwin University, 2022). This affirms findings of previous studies (Douglas & Peterside, 2016; Litana & Kapambwe, 2017; Mittal & Wakschlag, 2017) that though some mortuary attendants in Africa went through some form of training in IPC, these training sessions were inadequate because they were not specific to managing infectious dead bodies. In reaction, a respondent, a worker, FD73N8F, explained:

> *We were trained in hand hygiene, the use of PPE, and how to prepare and use Chlorine solution. This was during the pandemic (Sars-Cov-2) . . . and this was only once…that was all.*

Another respondent, a 27yr-old male deathcare worker, FD72JH2M, said:

> *I was not given any special training on how to handle infectious bodies since my recruitment. Those who were here before the pandemic said they were trained. Maybe we would also be trained when there is another outbreak.* (2 and half years as a deathcare worker).

Moreover, due to gaps in their preparedness and lack of knowledge in handling infectious dead bodies, most deathcare workers relied largely on their own discretion to manage infectious bodies. Reacting to this, a 30-year-old male deathcare worker, FD03JH4M, noted:

> *Apart from the cause of death report by the Doctor, we also consider the state of the dead body to determine the level of concentration of the chemicals (formalin, phenol, chlorine, and sodium solutions) to use. Sometimes, we rely on the nature of the skin, especially the skin colour, to determine whether the person died from a dangerous (infectious) disease . . . such dead bodies normally looked dark or decomposing.* (4 years as a deathcare worker).

These narratives are consistent with findings of a previous study (Litana & Kapambwe, 2017) (from Zambia) which revealed that mortuary attendants used their discretion when handling infectious dead bodies. Meanwhile, most deathcare managers (mainly from the public facilities) in the current study indicated that they relied on the MoH's IPC and OHS Policy Guidelines in the training of deathcare workers on the management of infectious dead bodies. However, none of the managers could show evidence of a training schedule for deathcare workers or show proof of any training specifically on how to handle infectious dead bodies. A manager, DM0184, explained:

> *. . . we may not have a training schedule specifically for the workers, but they have always been part of the trainings organised for all staff, especially for those working in infectious environments.*

Another respondent, a 45yr-old female deathcare manager, SHF7064, explained:

> *. . . I do not know about these documents but I have the practical experience and capable of training my workers without relying on any document.* (7 years as a deathcare manager).

When asked about whether it was adequate to rely on personal experience alone in training workers, SHF7064, explained further:

> *. . . I am not saying that this is the best, but none of my workers was ever confirmed to have contracted a disease from dead bodies. Meaning, we are doing well in protecting them (the workers). After all, I am personally involved in the work so why would I take things for granted?*

From the narratives above, it is suggested that as the deathcare workers relied on their own discretion in handling infectious dead bodies, overtime, these workers and their managers may not see the need for training. Unfortunately, it is assumed also that workers must be diagnosed or show signs and symptoms of infections for the management to believe and take measures at protecting the workers. Therefore, MoWAG may have to design a special training regime for deathcare managers to use as guide in training the workers in handling infectious dead bodies.

Theme two: Inadequate measures for protection against infectious diseases

Ensuring adequate protection for deathcare workers against infectious diseases is a top priority during the management of infectious dead bodies (PAO & WHO, 2020; Yaacoub et al., 2020). Therefore, deathcare managers are obligated to ensure adequate supply of PPE and make sure that hand and personal hygiene facilities are functional and adequate (O'Keeffe, 2021; Sugata et al., 2016; Vidua et al., 2020). In addition, the managers should conduct regular pre- and post-psycho-medical screening for the workers, and

provide supportive monitoring and supervision throughout the period of managing the infectious dead bodies. This coheres well with the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law that mandate the managers to put adequate structures in place to protect the workers from contracting infections from the dead bodies. However, affirming findings of previous studies from Africa (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Litana & Kapambwe, 2017), the current study showed that there are no well-defined structures to guarantee satisfactory protection for deathcare workers in the Western Region.

Although in the current study, the measures for the protection against infectious diseases were generally sub-optimal, it was found that private deathcare facilities had better safety systems in place. For instance, it was observed that the private facilities had functional hygiene facilities, reliable water supply systems, and supply of PPE was better. Unfortunately, pre- and post-psycho-medical screening and supportive monitoring and supervising were lacking at all facilities in the Western Region. Therefore, multiple institutional gaps were individually and collectively undermining the needed protection for the deathcare workers against infectious disease.

Sub-theme one: Inadequate supply of PPE: Several studies (Adamu & Lawani, 2018; Akinyemi et al., 2021; Litana & Kapambwe, 2017; Mridula & Ganesh, 2016; Ringane et al., 2019) have affirmed the efficacy of PPE in the fight against infections in the deathcare industry. Therefore, deathcare workers must be provided with adequate number and mix of PPE, especially when dealing with infectious dead bodies (O'Keeffe, 2021; Sugata et al., 2016). Moreover, exposure to PPE-preventable diseases among deathcare workers is very high as they regularly come into contact with blood and other body fluids

of dead bodies (Botha et al., 2022; Litana & Kapambwe, 2027). In view of this, the MoH's IPC and OHS Policy Guidelines provide that deathcare workers should be provided with adequate PPE when managing dead bodies, especially infectious dead bodies. However, findings of the current study show that deathcare workers in the Western Region are not adequately supplied with PPE to enable them safely manage such dead bodies. The situation has created room for dangerous improvisations that increased the likelihood of exposure to infectious diseases among the workers. For instance, rather than N95 respirator masks for protection against aerosolised bacteria, these workers were provided with ordinary nose masks; unfortunately, even these were being rationed at most of the facilities. These deathcare workers were also observed moving in-and-out of the storage areas in personal clothing. In reaction, a 46-year-old male deathcare worker, MA64SH5M, fuming with anger, remarked:

> *. . . who cares about our conditions of work? Our bosses (managers) have no regard for us . . . they think we are 'condemned' (worthless) and do not deserve to be protected. Yes, I will say it, I do not care, they can take me anywhere and I will repeat the same thing. But why must we beg for things we need to work with? Why? Are we not human beings too?* (5 years as a deathcare worker).

Most deathcare workers, especially those in public facilities openly expressed anger, frustration, bitterness, and disappointment for the disproportionate discrimination experienced from their managers over the years. A 43-year-old male deathcare worker, MA34JH9M, exclaimed:

> *Can any of them (managers) work under this condition? Everybody is accusing us of not wearing the PPE and that we are very stubborn (indiscipline) people. But, I ask a very simple question and please*

> *(researcher) be honest with me. Imagine that you (researcher) are fully donned, from head-to-toe, and embalming a dead body using formaldehyde under this heat and without an air conditioner. Can you (researcher) survive?* (9 years, 2 months as a deathcare worker).

The above narratives aligned with findings from previous studies (Agbobli, 2020; Botha et al., 2022; Kaledzi, 2020) that mortuary attendants were livid about the failure of their managers to provide enough PPE during the Sars-Cov-2 global outbreak. For instance, mortuary attendants in Ghana and other African countries went on strike over the shortage of PPE during the global pandemic (Agbobli, 2020; Akinyemi et al., 2021; Botha et al., 2022; Cohen & Rodgers, 2020; Kaledzi, 2020).

Furthermore, findings of the current study have revealed that besides the inadequate supply of PPE to the deathcare workers, increasing temperature was also making it unbearable to adhere to proper PPE use. Regarding this, a manager, SHF0134, reacted:

> *. . . I agree with them (workers) to some extent, but we are talking about their own health and safety here. You (workers) are complaining about inadequate PPE and yet you have refused to use the ones provided. At least, use the ones provided while you asked for more . . . that is the right thing to do. We are all managing . . .*

Considering the attitude of deathcare managers to PPE supply uncovered in the current study and the fact that this was a post-pandemic study, the presumption is that the managers had not learnt much from the Sars-Cov-2 global pandemic concerning protection against infectious diseases. Moreover, according to findings of previous studies (PAO & WHO, 2020; Yaacoub et al., 2020), given the fact that PPE are very important and basic

resources required for the safe management of infectious dead bodies, their short supply meant that workers were regularly exposed to infections from the dead bodies. The implication is that, apart from the workers contracting infections from the dead bodies, the immediate families of the workers and the general public were also at risk of contracting these diseases from the workers.

Sub-theme two: Inadequate/non-functional hand and personal hygiene facilities: According to Aljerian and BaHammam (2020), Dijkhuizen et al. (2020), ILO (2020a), Kichloo et al. (2021), hand and personal hygiene facilities are very essential to break the chain of transmission of diseases, especially for workers involved in the management of infectious dead bodies. Several studies (Loibner et al., 2019; Malik & Kamran, 2020; Ringane et al., 2019) suggest that while availability of hygiene facilities alone may not guarantee full protection against infectious diseases, they are key parts of the first-line interventions for IPC. Therefore, given the fact that deathcare workers regularly came into contact with body fluids and blood elements of dead bodies, the MoH's IPC and OHS Policy Guidelines strongly recommend that deathcare facilities be fully equipped with adequate and functional hygiene facilities to aid safe handling of infectious dead bodies.

Findings, however, of the current study have revealed that hand and personal hygiene facilities at mortuaries in the Western Region were either inadequate or non-functional. Specifically, most of these facilities did not have regular supply of water, and the workers had to fetch water in gallons (from elsewhere) for use. This situation seemed to have undermined the utilisation of hygiene facilities and increase the risk of transmission of diseases from the dead bodies to the workers. In reaction to the observations, a worker, FD73N8F, explained:

> *One of the most important resources we need for this work is water, and yet our taps flow only once in every two weeks. Therefore, we had to depend on the services of private water tanker dealers, which is too expensive for us. My boss (manager) is always complaining about the frequent shortage of water, meanwhile, this work is all about water . . . on days that the pumping machine breaks down, we fetched water with gallons.*

Another worker, MA15MS10M, exclaimed:

> *I can say that over 90% of the total IGF (internally generated funds) of this hospital comes from here (the deathcare facility). However, our bosses (managers) are not prepared to improve our work conditions...in total we have three sinks for hand washing but two have broken down and nothing has been done about them. Even during the Covid (Sars-Cov-2), only one sink was functional, yes only one. . . These people (the managers) do not care. The issue is that, because they do not enter the morgue to see things for themselves, they have no idea how seriously bad the place is. All they know is to mount CCTV (closed-circuit television) cameras all over to monitor us . . . they say we are thieves.*

Many previous studies (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Litana & Kapambwe, 2017) also found that mortuary facilities in Africa were inadequately equipped with hygiene facilities needed for the safe management of infectious dead bodies. Moreover, it was an abuse for the managers to describe the workers as thieves and also offensive to install CCTV cameras to monitor their activities as suggested by "MA15MS10M" above, without the consent of the workers. Furthermore, the current study

revealed that in some facilities, the workers connected water, using water hose, to the embalming areas contrary to the MoH's IPC and OHS Policy Guidelines. Moreover, some deathcare managers failed to realise the risks posed to the workers by the poor state of hygiene facilities. For example, a manager, DF8083, said:

> *I totally agree with you (researcher) that hand washing must be done under running water, therefore, we need to provide additional hand washing sinks and ensure that water is running through the taps. But my concern is that, we are constrained by funds and so we expect the workers to manage with what is available now. These people (workers) have been handling all sort of cases (dead bodies), including infectious cases (dead bodies) for years without issues . . . even Covid (Sars-Cov-2) was successfully managed without issues. Yes, I know water is not flowing at the place (deathcare facility) but that is not our fault, Ghana Water Company is yet to connect us to their lines . . .*

Additionally, it was observed that none of the facilities had elbow operated taps on the hand washing sinks, contrary to the recommendations by the MoH's IPC and OHS Policy Guidelines. This compares favourably with findings of previous studies (Adamu & Lawani, 2018; Douglas & Peterside, 2016; Dumahasi, 2020; Litana & Kapambwe, 2017) which reported that hand washing sinks in mortuary facilities in Africa lacked elbow operated taps. Unfortunately, this was blamed on funding. One reaction was: "We are constrained by funds and so we expect the workers to manage with what is available now." Also, the attitude to the handling of dead bodies was that it was normal, and that "workers have been handling including infectious dead bodies for years without issues." Such attitude towards worker protection is

not only a contravention of both national and international health and safety protocols, it raises a dire public health concern since such can lead to or escalate infectious disease outbreaks.

Sub-theme three: Lack of psycho-medical screening: Deathcare workers who were involved in the management of infectious dead bodies were required to go through psycho-medical screening before and after managing such cases, especially during epidemics and pandemics (Al-Kandari et al., 2019; Hamed & Mohammed, 2020). Therefore, to ensure early detection and intervention for exposures to infections, the IPC and OHS Policy Guidelines provide that deathcare workers go through psycho-medical screening. Additionally, there must be provision for continuous psychological assessment for all such workers throughout the period of managing infectious dead bodies, and or immediately after a significant event. In addition, the MoH's IPC and OHS Policy Guidelines provide that post-exposure prophylaxis systems must be activated for deathcare workers to help prevent and control the spread of infections. The findings of the current study, however, reveal that deathcare workers in the Western Region were not provided with psycho-medical screening, before and or after significant events such as the handling of Sars-Cov-2 or Cholera fatalities. To confirm this, a 42year-old male deathcare worker, MA24N6M, explained:

> *After nearly 4yrs of handling the Covid (Sars-Cov-2) dead bodies, our bosses (managers) failed in organising medical screening for us. This was a time when even the Doctors were afraid and PPE were not available, yet we risked our lives and managed the Covid cases (Sars-Cov-2 dead bodies). No screening (psycho-medical screening), no allowance, not even a thank you from them (managers) for managing*

> *the Covid cases (Sars-Cov-2 dead bodies). These people (managers) . . . !!! As I said earlier, our protection comes from God, not these people (the managers).* (6 years, 4 months as a deathcare worker).

Another worker, MA93SH5M, retorted:

> *For me, knowing the dangers involved in this work, I took a personal decision to have me screened once every year, which I pay for. Because, to rely on these people (managers) means that nothing will ever be done for you. Our health is not important to them (managers). But you see, not all of us (workers) can afford the cost of such medical screenings, so I am not expecting my colleagues (workers) to also pay while the hospital could take care of that.*

The evidence is that mortuary workers in Africa, including those in Ghana, Nigeria, Kenya, and South Africa are not taken through psycho-medical screening, even after managing infectious dead bodies or after experiencing significant exposures (Adamu & Lawani, 2018; Douglas & Peterside, 2016, Dumahasi, 2020; Nyaberi, 2014). The current study shows that the deathcare workers in the Western Region felt that the failure or rather refusal of their managers to conduct psycho-medical screening for the workers was a lack of concern for their health and safety. This is an unfortunate perception (if that is not true) about the managers since workers protection is a collective effort from both managers and the workers. The implications are that the workers may no longer report OHS hazards and accidents to their superiors, a situation that has the potential to result in poor safety participation. This would complicate the health and safety conditions of the workers and even the public. Furthermore, the situation could result in cross

infection of dead bodies which may expose the families of the bodies to diseases.

For instance, apart from hepatitis B screenings conducted for all staff, including the deathcare workers which was normally done during the peer-review meetings of public healthcare facilities, no comprehensive psycho-medical screening was conducted for the deathcare workers. Confirming this, a manager, DF8083, explained:

> *We may not have conducted any comprehensive medical screening for them (the workers) due to resource limitations, but we screen them for hepatitis B every year. At least, we are doing something and I hope that going forward the screening may cover other areas like HIV/AIDS and TB. I will discuss this further with management and see what comes out of it . . .*

Meanwhile, EPA, Ghana, mandates deathcare managers to promote information dissemination about HIV/AIDS at work by ensuring necessary precautions, through the provision of condoms, to lessen probability of transmission of infection. However, findings of the current study reveal that both the deathcare managers and their workers were not aware of this provision of the EPA. In fact, some deathcare managers were really surprised at the provision and wondered why the EPA was concerned about provision of condoms to the deathcare workers. To this, a 47-year-old female deathcare manager, SHF5074, exclaimed:

> *What? You mean condoms for the workers (workers)? What for? This is my first time of hearing this. . . . I am really surprised at this . . . what would these people (workers) be needing condoms for in the morgue? What do they (EPA) mean?* (5 years as a deathcare manager).

A worker, FD73N8F, equally wondered:

> *Condoms are meant to be used during sex . . . so were they (EPA) expecting us to be having sex at this place (deathcare facility)? With who, the dead bodies? I have never heard about this before . . . it sounds very strange?*

Meanwhile, Addadzi-Koom (2021), reported that the provision of condoms to deathcare workers was meant to protect the workers who may be having sex with the dead bodies from sexually transmitted diseases. However, the Western Regional Office of the EPA sounded a bit evasive on the issue as they disclaimed having any knowledge of an act of necrophilia (desire or sex with dead bodies). A senior officer from EPA explained:

> *This provision is in compliance with Ghana's National HIV/AIDS Policy Guideline and has absolutely nothing to do with sexual desire or intercourse with dead bodies. Rather, the provision is a general standard requirement for all work environments involving humans, and not specific to deathcare workers alone.*

The argument is that there is no provision of safety without reason, and the reason in this case is to protect the workers from sexually transmitted infections, either from having sex with the dead bodies or colleagues (Myers, 2015; Palmer, 2022; Waterson, 2019). Therefore, the provision envisaged that the workers may engage in sexual activity, either with each other or with the dead bodies, within the deathcare facility. However, it was found that the deathcare managers, the workers, and EPA officials were not prepared to open-up and discuss the issue, but their body language revealed that they have something more to share. Meanwhile, according to Addadzi-Koom (2021), though the discussion on workers having sex with the dead remains a very

sensitive subject in the Ghanaian society and in most African countries, there are three reported incidents among deathcare workers in Ghana. Similarly, findings of previous studies (Alramadan, 2024; Imron, Wicaksana, & Santoso, 2024; West & Resnick, 2016) revealed incidents of necrophilia among deathcare workers in other parts of the world. Thus, necrophilic acts could be happening among these workers for which provision of condoms is needed for their protection.

Sub-theme four: Lack of supportive monitoring and supervision: Health and safety systems of deathcare installations can be effective and efficient with a robust monitoring and supervision infrastructure (HSE, 2018). Deathcare workers may be adequately trained and oriented on their duties and specific tasks to possess safety-supportive personal attributes, be risk averse, and provided with the needed PPE for the safe handling of infectious dead bodies. However, these may still not translate into proper adherence to safety practices if a robust supportive monitoring and supervision regime is not in place (Moreaux et al., 2018; Seidu, 2020). For these reasons, the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law mandate deathcare managers to conduct regular supportive monitoring and supervision at deathcare facilities to ascertain whether the workers engage in safe and healthy work practices. However, findings of the current study revealed that deathcare managers in the Western Region failed to conduct proper and regular supportive monitoring and supervision at deathcare facilities. Therefore, infectious dead bodies were managed by the workers without supervision from their managers, leading to the application of discretion by the workers. On this, a 33-year-old male deathcare worker, MA33TU4M, bitterly exclaimed:

> *Who will do the supervision? The last time he (manager) came here, he stood very far away and never entered the morgue to check anything before leaving. Ask him whether he (manager) has ever entered the morgue to assess the state of the place? We supervise ourselves here. . . . I do not know about my colleagues, but speaking for myself, I would be very happy to have these people (managers) actively involved in the work we do. This way, they would experience at first-hand the challenges involved in this work which would hopefully change their attitudes towards our needs.* (4 years as a deathcare worker).

Given the fact that the deathcare managers have failed to conduct supportive monitoring and supervision of the deathcare facilities, senior (experienced) deathcare workers provide some form of supervision of all activities, including the handling of infectious dead bodies at many of these facilities. Another, FD35SH17F, explained:

> *So, the arrangement we have here is that, newly recruited workers are not allowed to do anything on their own. An old hand (experienced deathcare worker) would have to guide the recruit until such a time that the worker becomes experienced. The duration for this guidance depends on how fast the new recruit learns. . . . this (mentorship) could last between six months to one year.*

Contrary to this narrative, it was found, especially at the public facilities, that dead bodies were sometimes received and treated without the knowledge of the officer-in-charge (senior deathcare worker) of the facility; this was work which was likely done by inexperienced workers, without supervision. This situation creates significant gaps in monitoring and supervision and goes against the spirit and letter of the MoH's IPC and OHS

Policy Guidelines and Ghana's Labour Law regarding the supervisory role of deathcare managers. Previous studies (Douglas & Peterside, 2016; Litana & Kapambwe, 2017; Nyaberi, 2014) also found and reported that the work practices of mortuary attendants in Africa were not properly supervised resulting in the workers applying wide discretion in their actions.

Reacting to this, a 35-year-old female deathcare manager, DF0553, said:

> *Usually, the in-charge (senior deathcare worker) of the place (deathcare facility) is responsible for everything that goes on there. Though I have oversight for that place (deathcare facility) and do go there at least once every week, I cannot monitor and supervise them while they handled the dead bodies. That is their job for which they were recruited and so I do not have to be there before they do what is expected of them. I know they (workers) can very difficult people but I cannot be standing on them to work. Of course, I go there and whenever I saw any of them working without appropriate PPE, I reprimanded and sometimes give queries. I do not hesitate at all to punish them for not wearing proper PPE . . . yeah . . . !* (5½ years as a deathcare manager).

The assertion is that the deathcare managers in the Western Region had failed in discharging their supervisory duties as defined under the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law. Moreover, the senior deathcare workers seemed not to be competent enough to provide supportive monitoring and supervision consistent with the standard regulations. The implications are that these workers may not be managing the infectious dead bodies safely, and this omission on their part could increase the risk of

transmission of infections at the deathcare facilities (Litana & Kapambwe, 2017; Nyaberi, 2014).

Findings of the current study reveal major gaps in the management of infectious dead bodies by deathcare workers in the Western Region, Ghana. Clearly, the findings do have implications for the health, safety, and well-being of the workers, their immediate families, and on public health. This is plausible, given how an act of omission or commission in a laboratory in Wuhan City, Hubei Province, China, could result in the spread of a disease (Sars-Cov-2) causing a global pandemic that impacted all countries, far and near (PAO & WHO, 2020; Yaacoub et al., 2020). Therefore, deathcare workers in the Western Region could pick up infections from the workplaces and spread same to members of the general public and their families. The deathcare facilities in the Western Region are becoming potential sources of outbreak of infectious diseases. Moreover, the workers could be leaving with psycho-medical health conditions with short- to long-term implications for their health and general quality of life. Besides, the non-infectious dead bodies may become infected due to their being placed in proximity to the infectious ones. That also poses a threat to families that may come into direct contact with such dead bodies. Figure 10 provides details on Coding structure on how Infectious Bodies are Managed.

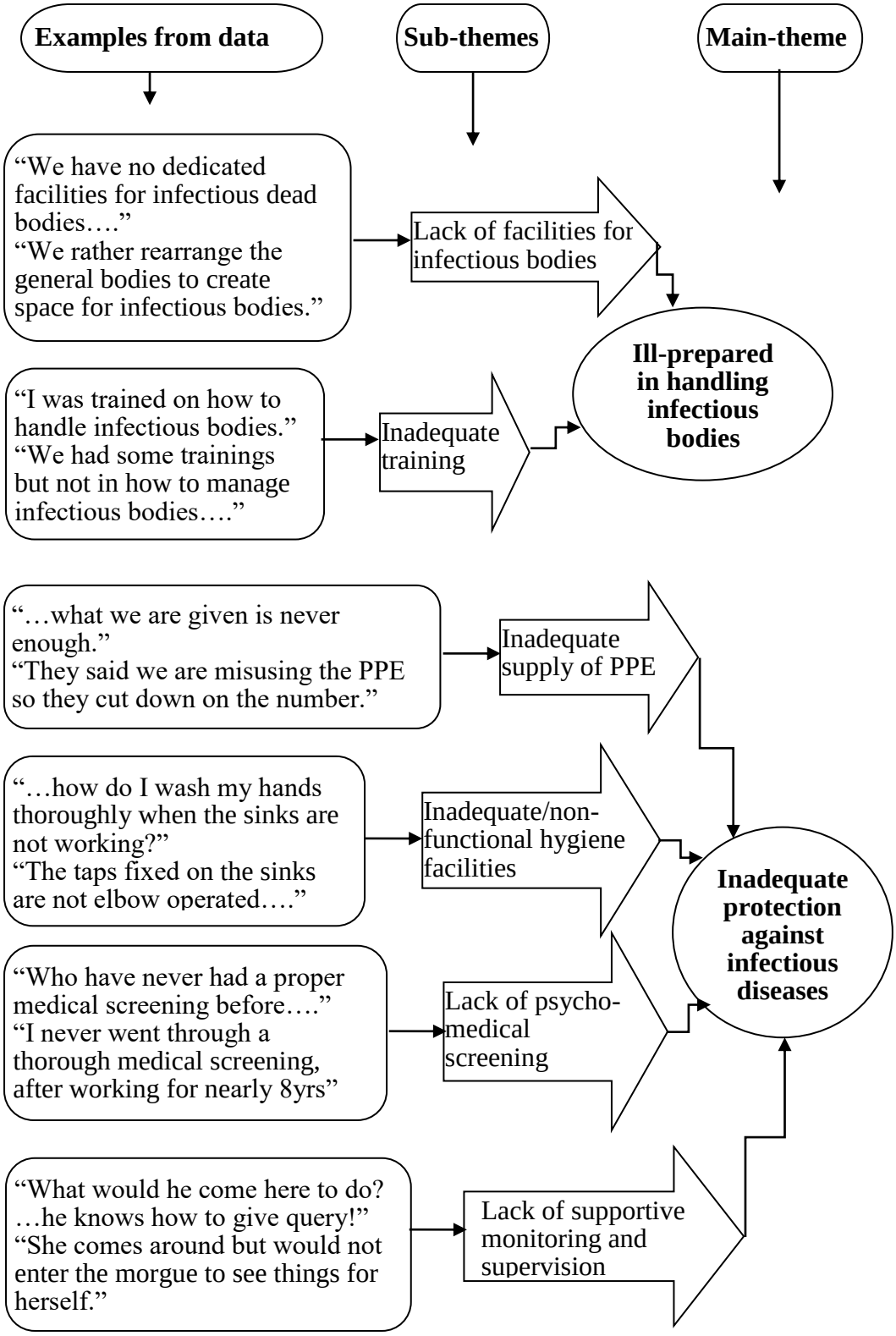

Figure 10: Coding structure on how Infectious Bodies are Managed

Research Question 4: What are the On-Site Psycho-Physical Safety Hazards experienced by Deathcare Workers in the Western Region?

This research question sought to explore on-site psycho-physical safety hazards experienced by deathcare workers in the Western Region. Fifty-one (51) deathcare workers and their managers were interviewed, while 12 functional deathcare facilities were assessed to determine the presence of psycho-physical safety hazards. Using the discourse analysis approach, data were analysed using four steps: data organisation and familiarisation, developing relevant codes, developing and reviewing relevant themes, running thematic analysis using the qualitative computerised data software, NVivo version 14, and developing a report.

Two main themes and eight sub-themes emerged from the data analysis. Theme one was common on-site physical safety hazards. The sub-themes were: i) chemical hazards, ii) biological hazards, and iii) ergonomic hazards. Theme two was common on-site psychosocial safety hazards. Its sub-themes were: i) heavy workload, ii) deplorable physical work environment and stigmatisation, iii) poor remuneration and lack of carrier progression, iv) continuous exposure to death, and v) lack of psychosocial support systems for healthy coping.

Personal factors such as poor adherence to PPE use, inadequate knowledge about the use of PPE and effects of chemicals on worker health, inadequate knowledge about biological hazards, low level of formal education and negative personal beliefs, and inadequate knowledge about ergonomic hazards were contributing to the physical safety hazards found among these workers. Additionally, institutional level factors such as inadequate and irregular supply of PPE, inadequate training about the use and effects of

chemicals on health, inadequate training about biological hazards, inadequate storage space, poor ventilation, irregular supply of water, and inadequate hand and personal hygiene facilities could compromise the health and safety of these workers. Furthermore, low level of formal education, increasing number of dead bodies received, inadequate number of deathcare workers, lack of elevators, inadequate work space, dirty and unpleasant odour-full environment, torn window nets, and poor ventilation account for the psychological safety hazards to these workers. Unfortunately, lack of worker restrooms, lack of standards for recruitment, lack of psycho-medical screening, and lack of supportive monitoring and supervision were compromising the health of the workers. Figure 11 provides details of words used by deathcare workers during on-site psycho-physical.

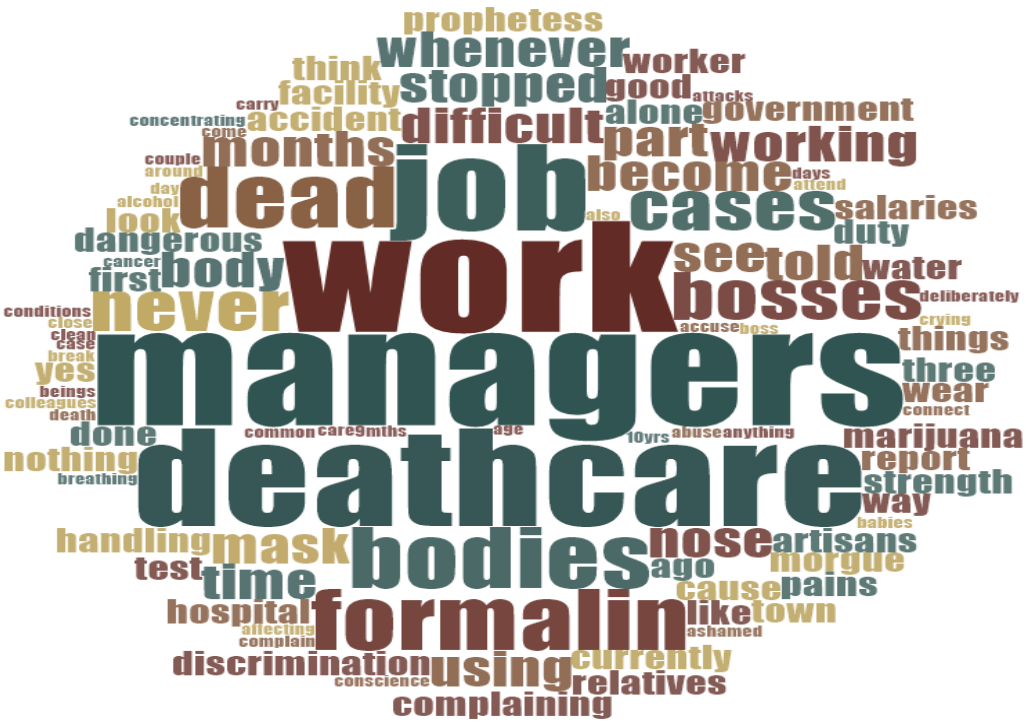

Figure 11: Words used by deathcare workers during on-site psycho-physical safety hazards

Source: Word Cloud generated from the qualitative computerised data software, NVivo version 14 Plus

Theme one: Common on-site physical safety hazards

Physical safety hazards, including chemical, biological, and ergonomic hazards are arguably the most common exposures in the deathcare industry. Several previous studies (Akinyemi et al., 2021; CSTS, 2020; Gabbriellia et al., 2021; Overmeire & Bilsen, 2020; USG, 2020) reported that the work environment of deathcare workers had multiple physical hazards that posed a substantial threat to the physiological well-being of the workers. Similarly, Eziagu et al. (2022) and Molewa et al. (2021) reported that the most prevalent physical hazards associated with the work of deathcare workers included exposure to a chemical like formaldehyde, detergents, and fixatives. The current study reveals that deathcare workers in the Western Region are faced with various forms of physical safety hazards in the course of their work.

Sub-theme one: Chemical hazards: The deathcare industry makes use of various chemicals, some for preserving the dead body which may include formaldehyde, phenol, and alcohol; others like chlorine and sodium are used as disinfectants (Chika, 2021; USG, 2020; Waschke et al., 2019). Sadly, regular exposure to these chemicals is high among deathcare workers (Akinyemi et al., 2021; O'Keeffe, 2021; Vidua et al., 2020). Perhaps, this is due to poor adherence to PPE use. Therefore, the MoH's IPC and OHS Policy Guidelines provide for adequate training in the use and effects of chemicals on human health, training in donning and doffing of PPE, adequate and regular supply of PPE, strict adherence to PPE use, proper storage of chemicals, and adequate ventilation as effective protection and prevention strategies against chemical exposures to workers. Unfortunately, the current finding is that many of the workers reported various injuries and illnesses. In confirmation, a 46-year-old female deathcare worker, FD64SH13F, explained:

> *I became very ill two years ago and the doctor told me that there were issues with my lungs which may be due to the inhalation of some dangerous chemicals . . . and I know it is the formalin. I have tried to wear the nose mask, though it can be uncomfortable, and since then I become more careful.* (13½ years as a deathcare worker).

Another deathcare worker, FD72JH2M, said:

> *. . . if you wear nose mask while using formalin, the nose mask quickly soaks the formalin vapour which makes breathing difficult. Therefore, we prefer not to wear the nose mask while using the formalin during embalmment . . .*

The narrative of "FD72JH2M" affirms findings from previous studies (Akinyemi et al., 2021; Government of Canada, 2020; Ringane et al., 2019) suggesting that respirators be worn when using formaldehyde. This is because respirators offer better protection than ordinary nose masks because respirators have the ability to filter formaldehyde vapour. Moreover, the remarks by "FD64SH13F" and "FD72JH2M" affirm the findings of previous studies (Botha et al., 2022; Dartey et al., 2021; Litana & Kapambwe, 2017) that mortuary attendants in Africa were not adequately protected from formaldehyde and other chemicals used at the mortuaries which were causing health issues to the workers.

Though deathcare workers in the Western Region were aware that the chemicals they used were dangerous to their health, they did not know that these chemicals were typically carcinogenic. A deathcare worker, MA14SH6M, confirms this:

> *. . . I know formaldehyde is dangerous to our health, but never knew that it could cause cancer. I am very worried about this information*

> *because, this same formalin is also affecting our eyes. Most of our retired colleagues (workers) are currently living with eye problems due to the formalin.*

In reaction to this, a manager, DM0184, explained:

> *They (workers) have been cautioned severally against using chemicals, especially the formaldehyde, without wearing appropriate PPE. But these people (workers) are something else . . . it is difficult dealing with them.*

Unfortunately, the comment from the manager (DM0184) suggests an act of victim blaming, which could explain why the workers were less protected.

Sub-theme two: Biological hazards: According to O'Keeffe (2021) and Vidua et al. (2020), deathcare workers confront biological hazards frequently when handling dead bodies. Typically, the nose, skin, mouth, and anus are orifices from which body fluids and blood-borne elements emerge (Kumari, 2021; Ringane et al., 2019). Moreover, previous studies (Akinyemi et al., 2021; Vidua et al., 2020) suggested that infectious diseases such as the SARS-CoV-2 could be active in the sputum, faeces, and eye fluids of infected dead bodies. Therefore, the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law provide for the protection of these workers from exposure to these fluids. These workers could continuously be trained about biological hazards and PPE use, couple with adequate and regular supply of PPE, strict adherence to PPE use, regular supply of water, adequate hand and personal hygiene facilities, and regular supportive monitoring and supervision of the deathcare workers.

Nonetheless, the managers and the workers are failing to discharge their responsibilities provided under the MoH's IPC and OHS Policy

Guidelines and Ghana's Labour Law. For instance, the workers handled dead bodies without observing basic precaution resulting in the splashing of blood and body fluids, sometimes into the faces of the workers. In addition, due to improper donning and doffing of PPE, several instances of contamination were observed during the work practices of the workers. A worker, FD82JH7F, said:

> *. . . as I said earlier, splashes are common experiences in this work. Unfortunately, as you can see, our sinks are not working and we have to connect water from the pipe outside using this water hose. . .*

Additionally, some of these workers lacked knowledge about the dangers posed by biological hazards and rather rely on their personal beliefs about the dead. Therefore, a worker, FD64SH13F, said:

> *. . . unless the cause of death report says the person died from a dangerous disease, I do not think there is anything to fear. . . . one thing you need in this job is to keep a clean conscience and nothing negative will happen to you. . .*

Meanwhile, contrary to the duties imposed by the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law, the managers had failed to carry out continuous supportive monitoring and supervision of the workers on duty. Additionally, broken down hygiene facilities had not been fixed and water supply was irregular. A manager, DM0125, reacted thus:

> *We do our best to provide them (workers) with enough PPE but they do not wear them. I personally saw some of them using personal clothing while handling the dead bodies. I queried them severally for that but they still do the wrong things.*

Meanwhile, queries alone cannot promote safety behaviour and the managers could have explored other measures to exact adherence to PPE use by the workers. Typically, the managers need to first establish the factors accounting for the poor adherence and move on to develop interventions to address them. For instance, training workers to understand why they need to wear PPE, awarding workers who are exemplary in adhering to PPE use, improving conditions that discourage adherence, and also providing supportive monitoring and supervision can be essential.

Sub-theme three: Ergonomic hazards: According to Pal and Patel (2021), the high incidence of musculoskeletal disorders reported among deathcare workers was because of the high level of physical activity involved in their work. For instance, a study by Chika (2021) found that the deathcare work environment predisposed the workers to multiple ergonomic health hazards, especially, musculoskeletal disorders. Meanwhile, deathcare facilities in Africa were reported to be antiquated and neglected (Adamu & Lawani, 2018; Litana & Kapambwe, 2017). Therefore, the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law recommended decent and adequate workspaces for workers. Nonetheless, the findings of the current study show that deathcare workers in the Western Region were routinely exposed to ergonomic hazards such as poor work posture, noise, physical attacks, slips, trips and falls, body scratches, extreme temperature variations, cuts, and needle stick injures. Due to the lack of elevators, these workers apply a lot of physical effort in carrying dead bodies leading to trips and falls. Thus, some of the workers complained of waist, back, and neck pain due to the heavy workload and physical effort involved in their work. A 34-year-old male worker, MA43SH5M, explained:

> *. . . hardly a week passes without us killing either a snake or scorpion in the morgue. How would you be happy working in an environment like this? Are we not human beings?* (5 years as a deathcare worker).

Another respondent, MA14SH8M, lamented:

> *There were days I could be on duty alone and have to handle all the cases (dead bodies). . . . I have stopped complaining about body pains because it is part of the work. Whom would I complain to?*

The narratives of "MA43SH5M" and "MA14SH8M" signify hopelessness felt by the workers, a situation that could make such workers to take their health and safety loosely. The narratives also affirm findings of previous studies (Litana & Kapambwe, 2017; Nyaberi, 2014) which reported that some mortuary facilities in Africa were infested with rodents. Furthermore, findings of the current study show that deathcare managers failed to conduct continuous supportive monitoring and supervision of deathcare facilities, leaving the workers to apply their own discretion. A 44-year-old male manager, DM03144, reacted:

> *We (managers) met and explained to them (workers) that the new facility would be ready in no time, therefore, they should just manage for now.* (Over 10 years as a deathcare manager).

Unfortunately, protecting the health, safety and well-being of these workers cannot and should not be postponed until the new facilities are completed and put to use. This could have both short-term and long-term health and safety implications to the workers, their families and the general public. For instance, the regular exposure to chemical, biological, and ergonomic hazards may lead to health conditions such as musculoskeletal pains, eye disorders, and cancer.

Also, the workers may contract and spread infectious diseases to their immediate family members and the general public.

Theme two: Common on-site psychosocial safety hazards:

It is complicated to establish how psychosocial safety hazards emerge and negatively impact deathcare workers (Breinegaard et al., 2017; Lunau, Wahrendorf, Müller, Wright, & Dragano, 2018; Rugulies, 2019). According to Mridula and Ganesh (2016) and Van Bortel et al. (2016), psychosocial safety hazards were often ignored by safety actors in the deathcare industry. As a result, the MoH's IPC and OHS Policy Guidelines charged deathcare managers to protect the workers form these hazards. However, findings of the current study reveal that these deathcare workers were regularly exposed to various forms of psychosocial safety hazards at work. Moreover, the deathcare managers had no clear structures in place to identify and address these hazards.

Sub-theme one: Heavy workload: Heavy workload was widely reported (Guidetti et al., 2021; Mridula & Ganesh, 2016; Pal & Patel, 2021; WHO/ILO, 2021) as a major stressor within the deathcare industry globally. However, deathcare workers in Africa were disproportionately exposed to heavy workload due to inadequate number of personnel, inadequate workspace, lack of elevators, and increasing temperatures (Douglas & Peterside, 2016; Nyaberi, 2014). Moreover, the high spate of road traffic accidents, flooding, rise in communicable and non-communicable diseases, rise in epidemics/pandemics (Ebola, COVID-19, Lassa, and Dengue) account for the increasing rate of mortality (Bertuccio & Runion, 2020; Durand-Moreau & Galarneau, 2021). Thus, the increasing rate of mortality means high and heavy workload on the workers. Meanwhile, the MoH's IPC and OHS Policy

Guidelines recommend that deathcare facilities should be designed and equipped to facilitate and make work less burdensome. Unfortunately, findings of the current study suggest that the workers were regularly confronted with heavy workload without any ameliorating measures. The number of deathcare workers operating in the industry in the Western Region was woefully inadequate to safely manage the increasing number of dead bodies admitted. This had resulted in high levels of fatigue, waist and general body pains, weakness, loss of appetite, and interrupted sleeps among the workers. A worker, MA33TU4M, lamented:

> *I am currently the only employee (deathcare worker) working here (deathcare facility), since it was opened 14 months ago. How can I carry the cases (dead bodies) alone? . . . I cannot go on leave or take a break from work to even attend to family issues. I become very tired and exhausted with general body pains and headache all the time . . .*

Another, a 45-year-old male, MA54SH11M, explained:

> *. . . I have done this job for over 10 years and do not have the strength for lifting these heavy cases (dead bodies) any longer. This work has made me look older than my age . . . all my strength is gone.* (11 years, 5 months as a deathcare worker).

These remarks (MA33TU4M and MA54SH11M) signify high levels of frustration among the workers. Unfortunately, such conditions, such as overload of work were widespread among deathcare workers in Africa (Adamu & Lawani, 2018; Litana & Kapambwe, 2017; Nyaberi, 2014). Sadly, most deathcare managers in the current study failed to recognise the OHS threats posed by heavy workload to the workers. In reaction to this, a 42-year-old male manager, DM0724, said:

> *. . . but that is what the work (deathcare work) is all about. You cannot do it (deathcare work) if you are not physically fit . . . it is the reason why we prefer the younger ones (workers). Yes, elevators would have been ideal but we do not have the funds for that.* (7 years, 6 months as a deathcare manager).

Sub-theme two: Deplorable physical work environment and stigmatisation: Globally, deathcare work is perceived as dirty and unpleasant, which induces a sense of repugnance and rejection (USG, 2020). There is also an association between poor physical work environment and psychosocial health among deathcare workers (Guidetti et al., 2021; Litana & Kapambwe, 2017; Nyaberi, 2014). For example, previous studies (Agyapa, 2022; Douglas & Peterside, 2016) revealed that physical work environment of deathcare facilities in Africa was very dehumanising which threatens the mental health of such workers, even their families. Therefore, the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law called for decent and supportive work environments for this category of workers. Nonetheless, findings of the current study show that deathcare workers in the Western Region constantly suffered abuse and stigmatisation, due to the general poor and deplorable physical work environment. Most of these deathcare facilities looked abandoned, dirty, had strong foul odour and high-level smell of formaldehyde. Sadly, these workers also constantly faced family members who were very sad and looked dejected because of the loss of their loved ones. Unfortunately, these facilities received very little attention from their managers, especially regarding logistical supplies, repair and maintenance of the work environment, supportive monitoring and supervision. A 36-year-old male worker, MA63PS7M, lamented:

> *. . . oh yes, our bosses (managers) sometimes come around but have never entered the morgue to see things for themselves. Moreover, artisans at the Estate Unit of the hospital repeatedly fail to honour our request for their services. As a result of this, we rely on artisans from town whenever we needed to repair something. We reported this to our bosses (managers) but nothing was done about it . . .* (7 years, 4 months as a deathcare worker).

Another respondent, MA14SH6M, fumed:

> *. . . if our own bosses (managers) are not willing to entre here (the inner facility) to see the poor conditions under which we work, then what does that tell you (researcher) about how they (managers) perceive us? The humiliation and discrimination are too much! I am not ashamed of doing this job, but the way our bosses (managers) are treating us is very demeaning.*

These (MA63PS7M and MA14SH6M) expressions of frustration are loud and have the tendency to compromise the mental health of the workers. Additionally, findings from previous studies (Adamu & Lawani, 2018; Litana & Kapambwe, 2017) suggested that mortuary facilities in Africa were congested, full of poor smell, maggot infested, dirty, and looked antiquated. Moreover, the evidence is that improved physical work environment promotes adherence to safety practices among workers (Levkovich & Shinan-Altman, 2021; Trabelsi, 2021, USG, 2020). A respondent, a 41-year-old male manager, DM7014, explained:

> *Of course, a clean physical work environment puts the worker in positive mood for work . . . so I understand that point. . . . We (management) are doing everything possible to improve their*

> *(workers) physical work conditions. But I would not accept that we have neglected them (workers), no, that is not the case . . .* (7 years as a deathcare manager).

This narrative (DM7014) reflects the attitude of a manager who may not be prepared to take responsibility for the poor work conditions of the workers. This could also be reflective of a manager who may not be easily approachable and someone before whom the workers may find difficult to lay their complaints. Thus, the workers may have to endure their frustrations at work and device their own means of dealing with such depressing work conditions.

Sub-theme three: Poor remuneration and lack of carrier progression: Several studies (Breinegaard et al., 2017; Jood et al., 2017; Madsen et al., 2016; Mridula & Ganesh, 2016) suggested that remuneration and a clear path for career progression were work conditions that influenced the psychosocial work environment in most organisations. While this may differ across the organisational structures (the upper, middle, and lower levels), remuneration and career progression matter a lot for the lower and middle level workers (Jood et al., 2017). However, findings of the current study revealed that these deathcare workers were very poorly remunerated and had limited or no opportunities for career progression. Even though the MoH had since 2015 approved a number of allowances (including risk allowance) (Afful, 2023) for deathcare workers, but most of the workers were yet to be paid. In reaction, a 29-year-old male worker, MA92SH3M, lamented:

> *. . . I think our bosses (managers) and the government have deliberately kept our salaries low as a way to supress and render us powerless. I have the same level of education as some labourers and*

> *security men in other government institutions in town, yet they received more pay than I do. Meanwhile, the work we do (deathcare work) is far more difficult and risk-prone. . . . I feel like crying each time I looked at my payslip.* (3 years as a deathcare worker).

Another respondent, FD73N8F, remarked:

> *Instead of concentrating on improving our salaries, they (the managers) rather accuse us of extorting money from relatives of the dead. Look, they (managers) do not care about our welfare. I was queried thrice for receiving gifts from relatives.*

These narratives could mean that the workers had lost trust and confidence in their managers and their employers, i.e. the government. This situation could be distressing to the workers and could lead to poor adherence to safety practices. Moreover, the workers may also decide to look for additional jobs elsewhere as a way of supplementing their incomes, including salaries which could lead to absenteeism. This supports findings previous studies (Adamu & Lawani, 2018; Botha et al., 2022; Litana & Kapambwe, 2017) that deathcare workers in Africa work under very distressing conditions of work while receiving very low remunerations. In confirmation, a 46-year-old male manager, DM0164, explained:

> *. . . of course, we (managers) know their (workers) salaries are low, but it is not our doing. Government determines the salary of every worker, myself included . . . so, the way forward is to start recruiting people (workers) with higher qualifications. For now, there is hardly anything I could do about their low salaries . . . their allowances would be paid when we (management) have funds.* (Over 10 years as a deathcare manager).

The above remarks showed a lack of commitment from the manager to the concerns raised by the workers regarding their poor conditions of work. This means that the workers would be left to their own fate till such a time when management has funds to pay the allowances and government also improves their salaries. Clearly, this can be very depressing to the workers which could interfere with their concentration at work and compromise safety behaviour.

Sub-theme four: Continuous exposure to death: Studies have suggested that deathcare facilities symbolise death while the workers are considered the custodians of same (USG, 2020; Guidetti et al., 2021; Vidua et al., 2020). The continuous exposure to death triggers stress and anxiety among these workers and result in depression and loneliness (CSTS, 2020; Colombo et al., 2019; Cotrim et al., 2020). For instance, evidence suggested that deathcare workers suffered long term depression because they handled dead bodies and related noxious substances on daily bases (Kisely et al., 2020; Makhubela, 2018; Mridula & Ganesh, 2016). The finding of the current study is that deathcare workers in the Western Region were experiencing multiple psychosocial safety hazards due to continuous exposure to dead bodies and associated situations. Decomposing dead bodies, exhumed bodies, dead bodies of infants and pregnant women, seriously mutilated bodies from road traffic accidents, and bodies of close relatives and friends were the main triggers of such hazards. A worker, FD73N8F, cried out:

> *. . . I become emotional whenever I worked on the body of a close relative or friend . . . so I have stopped.*

Another respondent, a 42-year-old male worker, MA24JH4M, remarked:

> *The first three months into this job (as a worker) was traumatising. . . . My sleeps were interrupted with fearful dreams involving dead bodies that I handled.* (4 years as a deathcare worker).

Another, a 37-year-old male worker, MA73JH3M, lamented:

> *. . . the most difficult part of this job is handling accident cases, exhumed bodies, pregnant women, and babies. I have stopped eating meat. 9 months ago, after handling my first accident case . . .* (3 years, 10 months as a deathcare worker).

The above experiences are traumatic to the workers and may lead to long-term post-traumatic stress disorders if not treated timely. Clearly, the normal way of life of the workers may be altered leading to poor quality of life. Therefore, the workers would benefit from psychological assessment and treatment to help them recover from the trauma. These narratives exemplify those from some previous studies (Litana & Kapambwe, 2017; Nyaberi, 2014).

Findings of this study have implications for the psychosocial health and well-being of the deathcare workers. For instance, the workers may be adapting and coping wrongly to the psychosocial hazards, with potential adverse effects on their health and well-being. It is also possible for the workers to yield to the temptation of elicit practices such as trading in body fluids and parts of dead bodies as a way of making extra income to supplement the meagre salary.

Sub-theme five: Lack of psychosocial support systems for healthy adaptation/coping: Workers of deathcare industry are arguably the most exposed to a complex mix of psychosocial safety hazards (Breinegaard et al., 2017; Lunau et al., 2018; Rugulies, 2019). According to Greenberg et al. (2020), ILO (2020a), and Kisely et al. (2020), though psychosocial safety

hazards seriously threaten the health and well-being of the workers, deathcare managers hardly paid any serious attention to these hazards. Moreover, several studies have suggested that it is difficult to fully unravel the types and impact of psychosocial stressors present in deathcare work (Guidetti et al., 2021; Mridula & Ganesh, 2016; Van Bortel et al., 2016). Therefore, the MoH's OHS Policy Guideline mandates deathcare managers to provide psychosocial support to deathcare workers. However, the current finding is that deathcare managers in the Western Region had failed to provide psychosocial support to the workers. This has resulted in the workers adapting wrongly to the hazards and adopting coping strategies that might harm their health and general well-being. Unfortunately, the training organised by MoWAG for senior deathcare workers of public deathcare facilities did not touch on psychosocial health and safety (Boateng, 2023). Related to this issue, a 40-year-old female worker, MA04SH10F, lamented:

> *. . . we were just told to report at the laboratory for medical screening during the peer-review meetings, which we did but you were never told what tests we were being subjected to. The most provocative part is that, three good months following the test, they (managers) have failed to disclose the test results to us . . .* (10 years as a deathcare worker).

Another respondent, FD23JH2F, complained:

> *My life has never been the same from the day I started this job (deathcare work). I suffer discrimination, abuse, insults, and marginalisation all the time. . . . I remember complaining to my boss (manager) about some of the frightening experiences during my night duties, but he told me to resign if I could not do the job . . .*

A manager, DF8083, said:

> *. . . some of them (workers) think they can intimidate us with those things (magical powers). . . . Someone cautioned me against punishing them (workers) when they go wrong because there is this perception out there that they (workers) have 'magical powers'. . .*

In such a hazardous work environment, the workers felt highly neglected by their managers, who also demonstrated some level of frustration and thus, failing to take the appropriate steps to protect the safety of the workers. The narratives above align with findings of previous studies (Litana & Kapambwe, 2017; Nyaberi, 2014) which reported that mortuary facilities in Africa did not have adequate systems in place for psychosocial support for the workers.

Furthermore, findings of the current study show that due to the lack of psychosocial support systems, the workers had adopted personal adaptation/coping strategies that might be injurious to their health and general well-being. As a result of lack of respirators for protection against dangerous chemicals and odour, some of the workers ignored the smell of formaldehyde and other chemicals, and went about their work as though these hazards did not exist or were not carcinogenic. Unfortunately, such conditions could lead to developing sensory adaptation, a condition where the workers could no longer perceive the smell or odour of chemicals due to long exposure. However, inhalation of these chemicals could irritate the airway, pulmonary edema, bronchospasm, systemic toxicity, metabolic acidosis, tissue and cause organ damage, and cancer (O'Keeffe, 2021; Sugata et al., 2016; Vidua et al., 2020; Waschke et al., 2019).

Coping became the common strategy for the workers in such situation of health and safety neglect. However, some of the workers abused substances

(tramadol, alcohol, cannabis, and cigarette) as a way of coping with the psychosocial safety hazards at work. In addition, a few of these workers rely on the prayers from pastors as protection, which also exposes some of the workers to fraudulent acts and manipulation by these religious leaders. In response, a worker, FD73N8F, remarked:

> *. . . yes, I smoke marijuana but not on duty. . . . Alcohol is not good for my system so I do not drink it. . . . Yeah! Marijuana helps me to eat and sleep well . . .*

Another respondent, MA43SH5M, retorted:

> *I have a strong prophetess that intercedes for me whenever things become unbearable at work. I suffered a couple of strange illnesses that the hospital could not treat. But it took the intervention of my personal prophetess before I recovered from those attacks.*

These experiences or coping measures, though maladjusted, have also been reported by previous studies (Adamu & Lawani, 2018; Litana & Kapambwe, 2017). Although the workers in the current study denied drinking alcohol on duty, the smell of alcohol could be perceived on some of them. Additionally, bottles of alcohol were found around the work environment, which the workers explained were gifts from relatives of the dead bodies they handled. Unfortunately, many of these workers may be having very compromised health and well-being. Figure 12 provides details of coding structure for on-site psycho-physical safety experiences.

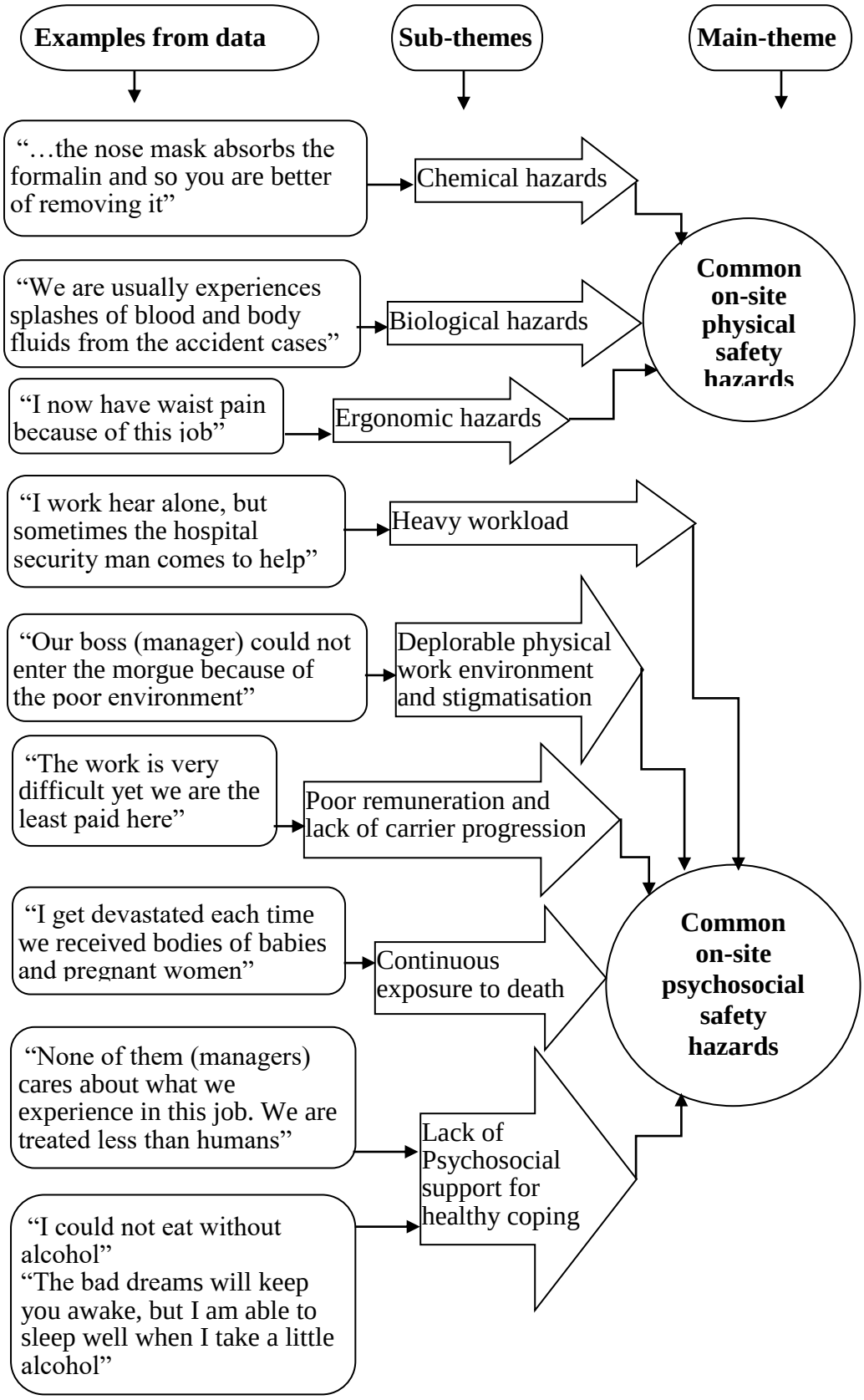

Figure 12: Coding structure for On-Site Psycho-Physical Safety Experiences

Our Field Experiences (The Research Team)

This section aims at providing a vivid account of experiences of the research team (researcher and assistants) during data collection for the research which sought to explore on-site safety practices and related health issues affecting deathcare workers in the Western Region of Ghana. This would help future researchers to have an idea of the nature of the study and be guided regarding the potential hazards involved in embarking on this kind of study. Additionally, this would help future researchers to adopt effective mitigation strategies against such hazards.

Since the inception of scientific research, research protocols have always prioritised the risk, safety, and protection for the research participants to the neglect of the researchers (Arlinda, 2022; Chriswell & Wheeler, 2016; Coles, Astbury, Dartnall, & Limjerwala, 2014; Conway, 2021). While it is ethically appropriate to protect and uphold the best interest of research participants, it is morally reprehensible to ignore the potential vulnerabilities and hazards posed by research and the processes of research to researchers (Eigi, Velbaum, Lohkivi, Simm, & Kokkov, 2018; Fenge, Oakley, Taylor, & Beer, 2019). Several previous studies (Kiyimba & O'reilly, 2016; Kulnik, Egbunike, & Francois, 2020) revealed that exposure in some research environments could be physically or psychologically safe to the health, safety and well-being of researchers, others could be very serious and life threatening to the research team. Therefore, Mattheis and Kingdon (2021) and Raheim et al. (2016) recommended that while the researcher takes steps to guarantee adequate protection for the research participants from the immediate and long-term effects of the research, equally, steps must be taken to ensure full protection from researcher-risks in the course of research.

Pre-field preparations

Being an experienced health services administrator, the researcher had a reasonably good idea about the nature and demands of researching mortuary attendants. Given this background, the researcher anticipated that the research team would confront certain hazards (mainly physical and psychological hazards) during data collection. In view of this, a two-week pre-field orientation was organised for the research team in preparation for what to expect in the field and the protective and coping strategies to apply. This included proper PPE use, good hand and personal hygiene, good nutrition, appropriate coping strategies. The orientation was facilitated by the researcher and a clinical psychologist who was also part of the team. In total, there were seven members of the team including the researcher, the clinical psychologist, and five research assistants. The role of the clinical psychologist was to offer psychological assistance to the research team (that is the researcher and five research assistants) and the deathcare workers. A male research assistant intimated: "*The orientation has given me a good idea about what to expect. . . . I completely underestimated my role as a research assistant before the orientation*." As part of the preparation, the team participated in the pre-testing exercise involving four deathcare facilities and 32 deathcare workers. A male research assistant remarked: "*It is one thing being told about something and another experiencing the thing yourself. I now understand why they (workers) drink alcohol (allegedly). I nearly vomited the first day we entered the morgue . . .*"

Research assistant attrition

Given the experience in the previous study, the researcher anticipated research assistant attrition. Therefore, though two research assistants were

estimated to be adequate for the data collection, five were recruited making room for dropouts. As anticipated, three research assistants dropped out midway through the data collection leaving only two who ended the data collection. This aligns with previous studies (Jamal, 2024; Mattheis & Kingdon, 2021; Silverrio et al., 2022) that established that researchers abandoned studies that were risky and life-threatening.

Exposures during data collection

The researcher and five research assistants (this included the three research assistants that dropped out of during the data collection), shared their field experiences through a focus group discussion after the data collection. The discussions did not only offer an avenue for the research team to share their field experiences, but also created opportunity for psychosocial support and healing.

In the current study, the research team was confronted with various psycho-physical safety hazards while data collection was ongoing. These included the threat of scorpion sting, insect bites, exposure to dead bodies that were in a bad state (mainly accident cases and bodies of infants), exposure to piles of dead bodies, dirty and odour-full facilities, the wailing of grieving families, and listening to the stressful lived experiences of the workers.

These physical hazards vary, in form and intensity, and included sight of road traffic accidents, physical attacks (knife and gun attacks), verbal abuses, threats of death, intimidation, animal and insect attacks, and several others. Though some of these experiences were serious to the team, they seemed not new to this kind of studies because previous studies (Fenge et al., 2019; Mattheis & Kingdon, 2021; Raheim et al., 2016; Silverrio et al., 2022; Simpson & Wilson-Smith, 2017) showed that while some exposures were very

minor, others resulted in long-term incapacitation to some researchers. For example, a male research assistant said:

> *I had several insect bites while we were going around to assess the exterior of the facilities. Look at the spots on my skin . . . these are from the insect bites. I thought about wearing long sleeves but I could not because of the heat . . .*

Another assistant exclaimed:

> *I was bitten by mosquitos during the evenings when we were observing the work practices of the undertakers (funeral directors). I became a bit feverish two weeks after we ended the exercise, so I decided to report at the hospital for check-up . . . yeah. . . . I tested positive for malaria and currently on treatment.*

The lead researcher explained:

> *I was a bit alarmed when the workers complained about killing snakes and scorpions in the morgue. So, seeing a live scorpion actually climbing my footwear was like facing death itself . . . I almost lost my balance after I jumped. I would have been stung if not for the boots I wore. At that point, I felt I made a mistake in deciding on this research . . .*

The team was also exposed to high levels of noise that caused the health of many of the team members. A male research assistant said:

> *. . . I experienced headache each time we visited the morgues on Fridays . . . the noise from the motor bikes coupled with the drumming and wailing by the relatives were too much for me. So, this is what the workers go through . . .*

Furthermore, many of the team members faced psychological hazards which, arguably, were the most common forms of hazards confronted by qualitative researchers worldwide (Arlinda, 2022; Chriswell & Wheeler, 2016; Coles et al., 2014; Conway, 2021). While the impact of such hazards on the health and well-being of researchers were yet to be explored, some studies (Mattheis & Kingdon, 2021; Raheim et al., 2016; Silverrio et al., 2022) hypothesised that investigators could suffer long-term psychological health issues related to such research journey. For example, many of the team members saw dead bodies that were in a very bad state (mainly accident cases and dead bodies of infants), piles of dead bodies, were exposed to very dirty and odour-full work environments, wailing from grieving families, and heart-breaking lived experiences of the workers; these were situations many of the team members had never witnessed. One member reported:

> *Recounting the experiences alone is frightening enough to me. From the day we witnessed those accident cases, I have been experiencing nightmares till date, though it is better now. . . . I even lost appetite for a whole month as a result. I could not imagine going back to witness anything of the sort . . . that was why I left you guys . . . this has nothing to do with being brave, "bro" (brother)*!

Another noted:

> *I could not concentrate after seeing the lifeless body of a 2-year-old child that afternoon . . . my first time of seeing such. I kept reflecting over the experience that whole night and asked myself what is the essence of life. I am not sure I would volunteer in such a study again, no matter the offer. What! Just imagine that this is what people do as work!*

Another male research assistant explained:

> *I could watch stuff like this in movies but to have in front me a pile of lifeless bodies of human beings was too much for me. In fact, I just felt I could not continue with you guys after witnessing over 40 dead bodies packed at one place. That explains why most of them (workers) abuse substances . . . (allegedly), I would have done same if I was one of them (worker).*

Beyond these, the researcher was devastated and psychologically put down just after the data collection. Fortunately, the mentor, though not a clinical psychologist, was a psychosocial safety climate expert, had called the researcher, and getting to know of the ordeal, provided some encouragement. This interaction tremendously helped the research to get back into writing the research. The mentor then advised that the researcher document these experiences to help other researcher in the near future.

These findings have practical implications for researchers who may carry out similar studies in the future and the current research team. For instance, members of our team may live with the effects of the psychological hazards for a longer period than envisaged. This was the reason the main researcher brought in a psychologist once to assist the team members. Unfortunately, the one section of psychological assistance may not effectively work for all the members, but the lead researcher could not engage more psychologists because of financial constraints. Moreover, given the many psycho-physical safety hazards confronted by the current research team, future researchers who intend to study likewise research area may have to recruit research assistants with health background (nurses and laboratory technicians) and even recruit more of these assistants. This is because the two research

assistants who stayed on till the end of the data collection were those with health backgrounds. The belief is that such assistants can exhibit resilience and complete the data collection, because they have been trained in the area and may have witnessed many of such incidents. Moreover, it is important that a psychologist is employed to prepare the team before embarking on the collection, during data collection and after data collection.

CHAPTER FIVE

SUMMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of the study was to examine the on-site safety practices and health experiences of deathcare workers in the Western Region of Ghana, using descriptive phenomenological designs with observation. In this last chapter, I present a summary of the entire research process, the main findings, conclusions, recommendations, and suggestions for further research.

Summary

Deathcare workers are directly and regularly exposed to dead bodies. They, lift or carry dead bodies, use hazardous chemicals in preserving these dead bodies, while working under very deplorable conditions, they are less educated, and poorly remunerated (Botha et al., 2022; De Jesus & Barnhill, 2023; Goodwin University, 2022; Simone, 2022). Typically, deathcare workers are exposed to various occupational hazards that compromise their physiological and psychological well-being (Eziagu et al., 2022; ILO, 2020a; WHO, 2021a) and psychosocial safety while they work on the dead bodies (Guidetti et al., 2021; (USG, 2020; Yardley et al., 2018). Meanwhile, OHS is conceived as a science of anticipation, recognition, evaluation, and control of hazards associated with work that negatively affect the health and general well-being of employees, immediate families, and the general public (ILO, 2020b; 2020d; WHO).

Generally, deathcare workers in the developed countries possess the requisite qualifications for the work they do, they are well trained and regulated, furnished with adequate resources and equipment, well remunerated and supervised, protecting them from undue exposure to dead bodies while at work (De Jesus & Barnhill, 2023; Goodwin University, 2022; Simone, 2022).

However, the situation in the developing countries, especially Africa, differ disproportionately (Adamu & Lawani, 2018; Litana & Kapambwe; 2017). In Africa, the deathcare industry has no clear standards for recruiting the workers, the workers are under-educated and poorly trained, poorly regulated, poorly resourced and equipped, poorly remunerated and supervised, and that make the workers disproportionately suffer more adverse events at work (Botha et al., 2022). In addition, deathcare facilities in Africa are poorly maintained, neglected, full of foul smell from decomposing dead bodies and formaldehyde, compromising the health and well-being of the workers.

In Ghana, the deathcare facilities are replete with multiple workplace hazards that endanger the health and well-being of deathcare workers (Asare-Donkor et al., 2020; Botha et al., 2022; Nkrumah et al., 2021). These facilities (morgues and funeral homes) lacked adequate hand and personal hygiene facilities, poorly ventilated and illuminated, do not have adequate supply of water, and the work environment is generally nontherapeutic and inhumane (Botha et al., 2022; Nkrumah et al., 2021). Thus, a typical deathcare worker endures a complex mix of work-induced hazards than the average worker in Ghana (Asare-Donkor et al., 2020; Dartey et al., 2021). For instance, weaknesses in the management of infectious dead bodies at the mortuaries were seriously exposed during the Sars-Cov-2 outbreak in Ghana, because the workers were not adequately prepared and resourced during the pandemic (Agbobli, 2020; Eziagu et al., 2022). Meanwhile, the ILO's decent work for all agenda provides that employees must work under conditions that ensure freedom, security, justice, and human dignity (ILO, 2020b). Unfortunately, Ghana lacks a robust and effective national health and safety policy for all working (Ansah et al., 2018; Botha et al., 2022). As a result, the deathcare

industry currently relies on three guidelines, including the MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law in managing deathcare practice in Ghana.

To realise the purpose of this study, five research questions were explored: (1) What is the Knowledge of Deathcare Workers in Western Region on the MoH's OHS and IPC Policy Guidelines and Ghana's Labour Law?, (2) What are the On-Site Safety Practices of Deathcare Workers in the Western Region?, (3) How are Infectious Bodies Managed by Deathcare Workers in the Western Region?, (4) What are the On-Site Psycho-Physical Safety Hazards experienced by Deathcare Workers in the Western Region? and (5) What are the field experiences of the researcher (team) while studying occupational health and safety experiences and concerns of deathcare workers in the Western Region of Ghana?

To answer these research questions, qualitative research approach, using descriptive phenomenological designs with observation was applied (Cudjoe, 2023; Englander & Morley, 2023; Sinfield et al., 2023). This design entails the collection of data through interviews from the deathcare workers and observation of both the on-site safety practices of the workers and the physical work environment of the deathcare facilities (Cudjoe, 2023; Englander & Morley, 2023; Sinfield et al., 2023). Purposive, census, and convenient sampling techniques were used to recruit the participants (Andrade, 2021; Hagaman & Wutich, 2017; Hennink, Kaiser, & Marconi, 2017; Ogah, 2013; Setia, 2016). Purposive and convenient sampling techniques were utilised to recruit all 51 deathcare workers and 12 deathcare managers from 12 functional deathcare facilities. Therefore, data was

collected from 12 functional deathcare facilities (both public and private) in the Western Region, Ghana.

Data were collected using two instruments; interview guide and observation checklists. The interview guide for deathcare workers contained five items and 18 prompts and solicited demographic data such as age, gender, level of formal education, and work experience from the workers. The interview guide also explored the knowledge of the deathcare workers about the MoH's IPC and OHS Policy Guidelines and Ghana's Law, management of infectious dead bodies, and the on-site psycho-physical safety hazards experienced by the deathcare workers. Furthermore, the physical work environments of the 12 deathcare facilities and on-site safety practices of the deathcare workers were observed to determine their compliance with the MoH's IPC and OHS Policy Guidelines and Ghana's Law. Data transcription, organisation and familiarisation, coding, and development of relevant themes were conducted manually and electronically. The qualitative computerised data software, NVivo version 14, was utilised in organising themes.

Key Findings

Based on the results of the study the following findings were developed:

1. Overall, only few (12 out of 51) of the deathcare workers in the Western Region were aware of the existence of MoH's IPC Policy Guideline and Ghana's Labour Law. Additionally, very few (4 out of 51) of the workers could meaningfully describe how two of the regulations (MoH's IPC Policy Guideline and Ghana's Labour Law) relate to their work. Furthermore, the deathcare managers fail to organise pre and post-deployment training for the workers and that, there were no avenues to

effectively disseminate knowledge acquired from the MoWAG workshops among the workers.

2. The on-site safety practices of the workers were generally poor and predispose them to multiple OHS hazards, including informal workers whose safety behaviours were unacceptably poor. Moreover, increasing temperature has forced the workers to change their work schedules to more favourable periods of the day, that is from the previous 0830 (8:30am) to 1700hrs (5pm) to now 0200hrs (2am) to 0900hrs (9am).
3. The workers are inadequately trained and oriented and resourced to safely manage infectious dead bodies. Moreover, the industry lacks appropriate facilities to safely hold and separate infectious dead bodies which could lead to the risk of cross-infection. Furthermore, supply of PPE was both irregular and inadequate for the safe management of infectious dead bodies resulting in dangerous improvisations that increased the risk of exposure to infectious diseases among the workers. Additionally, hand and personal hygiene facilities are either inadequate or non-functional, and the workers were also not provided with psycho-medical screening, before and after significant events such as the handling of Sars-Cov-2 or Cholera fatalities.
4. The workers were routinely exposed to ergonomic hazards such as poor work posture, noise, physical attacks, slips, trips and falls, body scratches, extreme temperature variations, etcetera. Additionally, the workers regularly confront heavy workload due to inadequate personnel and increasing number of dead bodies admitted. Fatigue, waist and general body pains, weakness, loss of appetite, and interrupted sleeps were common signs and symptoms reported. Furthermore, the workers

experienced multiple psychosocial safety hazards due to continuous exposure to death, yet the managers have failed to provide psychosocial support to the workers resulting in unhealthy adaptation and coping strategies.

5. Some research assistant (3 out of 5) dropped out midway through the data collection due to the psycho-physical safety hazards confronted in the field. The research team confronted several psycho-physical safety hazards including the threat of scorpion sting, insect bites, exposure to dead bodies that were in bad state (mainly accident cases and bodies of infants), and exposure to piles of dead bodies. Others included dirty and odour-full facilities, the wailing of grieving families, and listening to the stressful lived experiences of the workers.

Conclusions

The following conclusions were drawn based on the findings of the study:

1. Deathcare workers in the Western Region are not knowledgeable in the policies (MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law) that regulate their work. This is expected, given the poor educational backgrounds of the workers and failure of the managers to organise pre and post-deployment trainings.
2. The on-site safety practices of the workers are unacceptably poor and inconsistent with the MoH's IPC and OHS Policy Guidelines. This could be explained by the generally poor educational backgrounds of the workers, inadequate hand and personal hygiene facilities, and failure of the managers to organise pre and post-deployment trainings and provide supportive monitoring and supervision. Also, increasing

temperature is adversely impacting adherence to on-site safety practices.

3. The workers lacked the knowledge and skills needed to safely manage infectious dead bodies. This was expected given the generally poor educational backgrounds of the workers, failure of the managers to organise pre and post-deployment trainings and provide supportive monitoring and supervision, and inadequate hand and personal hygiene facilities.
4. The workers routinely confront multiple psycho-physical health and safety hazards that threaten their health and well-being. However, the managers have failed to put systems in place to mitigate these exposures and ensure healthy adaptation and coping strategies by the workers.
5. The several psycho-physical safety hazards experienced by the research team members could have short-to-long term effects on their health and well-being. Perhaps, the recruitment and orientation processes for the research assistants were not thorough enough. This resulted in the high attrition (3 out of 5 research assistants) recorded during the data collection.

Recommendations

The following recommendations are stated based on the conclusions of the study:

1. Mortuaries and Funeral Facilities Agency must collaborate with MoWAG and GHS to train all deathcare workers (public and private alike) on the industry regulations (MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law). This is envisaged to significantly improve their knowledge

and confidence needed for effective and efficient work. Moreover, the knowledge gained from these trainings would enable the workers demand for their rights from the managers.

2. Deathcare managers could consider recruiting workers with backgrounds in Mortuary Science and Funeral Studies. This would help improve the knowledge about the implications of on-site safety practices and improve the skills and confidence of the workers in carrying out their duties. Additionally, the managers must provide regular supportive monitoring and supervision of on-site practices of the workers. This would provide opportunity to identify areas for training and also serve as a check on the wide application of discretion by the workers.
3. Mortuaries and Funeral Facilities Agency must collaborate with MoWAG and GHS to design a special training in the management of infectious dead bodies for both the workers and their managers. This would help improve the knowledge about infectious disease and how to prevent them and also improve the skills and confidence of the workers in managing infectious dead bodies. Moreover, such trainings would provide the managers with the knowledge needed in providing effective and efficient supportive monitoring and supervision for the workers and also draw their attention to the safety structures needed.
4. Mortuaries and Funeral Facilities Agency must collaborate with MoWAG and GHS to carry out quarterly assessment of deathcare facilities to ensure they comply with the industry policies (MoH's IPC and OHS Policy Guidelines and Ghana's Labour Law). Thus, the managers would be expected to focus attention on the deathcare facilities to ensure early identification, mitigation, and prevention of hazards.

5. Researchers intending to embark on studies such as this must develop clear-cut criteria for recruiting the research assistants. This would help ensure that the right calibre of research assistants with the relevant backgrounds are recruited for the study. Moreover, the pre-field orientation for the research team must be organised before and after the pretesting of the research instrument. This would help improve the knowledge and confidence of the research team members and help them adopt appropriate coping strategies. Therefore, the rate of attrition by the research assistants would significantly reduce. Moreover, the researcher must budget for the cost of psycho-medical treatment for the research assistants during and after the study. This would help lessen the burden of impact of the psycho-physical hazards confronted during and after the data collection.

Suggestions for Further Research

1. Further studies are needed to explore the effects of psychosocial hazards on the health, safety and well-being of deathcare workers.
2. Investigating the health and well-being of the retired deathcare workers in country is necessary.
3. Replicating the current study across the other regions of the country is warranted.

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APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND RECREATION

PARTICIPANT INFORMATION SHEET

Dear Participant,

I am Godwin Dumahasi, A PhD Candidate at the Department of HPER, UCC. I am studying "On-site Safety Practices and Health Experiences of Deathcare Workers in Western Region, Ghana." This research is a requirement for the award of a Doctor of Philosophy degree in Health Promotion (Environmental and Occupational Health). I am contacting you because you have experiences that are relevant to the outcome of this research, which is purely for academic use. This will take about 30 – 45 minutes of your time. I assure you that your responses to the ussies below will be handled with the utmost confidentiality. Therefore, I will appreciate your honest and complete responses. However, if you wish to discontinue this engagement at any point, even after consenting to participate, you are free to do so. I also assure you that the study will not endanger your health and work, and all information provided is meant for academic use only.

If you agree to participate in this study, please sign in the space provided below.

Signature: ……..……

Date: …….…….

For further information on this study, please contact my supervisors, Dr Edward Wilson Ansah at 024 770 3379, Dr Jacob Owusu Sarfo at 024 648 5735, or myself (Godwin) at 024 276 6087.

APPENDIX B

INTERVIEW GUIDE FOR DEATHCARE WORKERS

Demographic characteristics of Deathcare Workers:
Age: ……..
Sex: ……..
Level of formal education: ……..
Years of experience: ……..

1. What do you know about the policies that protect you at work?
Prompts:
i. What does the Infection Prevention and Control Policy Guide require of you?
ii. How does the Occupational Health and Safety Policy Guide protect you as a deathcare worker?
iii. What does the Labour Law say about your responsibilities and that of your employers?

2. How do you manage Infectious Dead Bodies (SARS-CoV-2, Cholera, etc.)?
Prompts:
i. How did your employer prepare you for this role?
ii. What measures are in place to protect you from infectious diseases?

3. What safety hazards do you experience during work?
Prompts:
i. What physical safety hazards do you experience during work?
ii. What psychosocial safety hazards do you experience during work?

4. What is the relevance of personal and work-based factors to your work?
Prompts:
i. In what ways does formal education contribute to your work?
ii. In what ways do perceptions contribute to your work?
iii. In what ways does personal belief/philosophy of work contribute to your work?
iv. In what ways do policies contribute to your work?
v. In what ways do awareness and knowledge contribute to your work?
vi. In what ways do resources/logistics contribute to your work?
vii. In what ways do OHS facilities contribute to your work?
viii. In what ways does workload contribute to your work?
ix. In what ways does training/orientation contribute to your work?
x. In what ways do monitoring and supervision contribute to your work?
xi. In what ways does medical screening contribute to your work?

5. Is there any additional information you would like to provide?

Thank you very much for your time and participation in this study.

APPENDIX C

INTERVIEW GUIDE FOR DEATHCARE MANAGERS

Demographic characteristics of Deathcare Managers:

Designation: ……..

1. What are your responsibilities for the Deathcare Workers?

Prompt:

i. How do you recruit and manage your Deathcare Workers?

2. How does your facility manage Infectious Dead Bodies (SARS-CoV-2, Cholera, etc.)?

Prompts:

i. Which guideline(s) do you rely on?

ii. Do you have a copy of these guidelines?

iii. How do you prepare your deathcare workers for this role?

iv. What measures do you have in place to protect them from infectious disease?

3. What is the relevance of personal and work-based factors to the work of your deathcare workers?

Prompts:

i. In what ways does formal education contribute to your work?

ii. In what ways do perceptions contribute to your work?

iii. In what ways does personal belief/philosophy of work contribute to your work?

iv. Do you have a copy of the Infection Prevention and Control Policy Guide?

v. Do you have a copy of the Occupational Health and Safety Policy Guide?

vi. Do you have a copy of the Labour Law?

vii. In what ways do policies contribute to your work?

viii. In what ways do awareness and knowledge contribute to your work?

ix. In what ways do resources/logistics contribute to your work?

x. In what ways do OHS facilities contribute to your work?

xi. In what ways does workload contribute to your work?

xii. In what ways does training/orientation contribute to your work?

xiii. In what ways do monitoring and supervision contribute to your work?

xiv. In what ways does medical screening contribute to your work?

4. Is there any additional information you would like to provide?

Thank you very much for your time and participation in this study.

APPENDIX D

OBSERVATION CHECKLIST I	
ON-SITE SAFETY PRACTICES AND USE OF PERSONAL PROTECTION EQUIPMENT	
On-site safety practices	
Practices	**Observations**
Hand/personal hygiene	
Handling of dead bodies	
Management of equipment	
Availability and use of PPE	

OBSERVATION CHECKLIST II		
WORKING ENVIRONMENT AND OTHER SAFETY REQUIREMENTS		
Some essential safety features		
Feature	**Description**	**Observations**
Floor	Hard and durable	
	Moisture resistant and easily cleaned	
	Floor ducts and trenches absent	
	Junction between walls and floors well sealed	
Walls	Thick, durable and permanent	
	Fitted with pale blue colour tiles up to the ceiling	
Doors	Wide sliding and fly proof	
Corridors	Wide (not less than 8ft)	
Water supply	Regular (hot and cold)	
	Adequate number of sinks	
	All taps with working area elbow operated	

Other safety requirements

Item		**Available**		**Functional**		**Remarks**
		Yes	**No**	**Yes**	**No**	
Air condition						
Fire extinguishers						
Electrical wires/fittings						
Waste bins	Black					
	Brown					
	Yellow					
Lumination						
Rest room						
Bathroom						

APENDIX E

ETHICAL CLEARANC

Institutional Review Board
37 Military Hospital
Neghelli Barracks
ACCRA

Tel: 059 1759506
Email: irbmilhosp@gmail.com

07 February 2024

ETHICAL CLEARANCE

37MH-IRB/PhD/IPN/817/23

On 07 February 2024 the 37 Military Hospital (37MH) Institutional Review Board (IRB) approved your protocol.

TITLE OF PROTOCOL: On-site Safety Practices and Health Experiences of Deathcare Workers in Western Region, Ghana.

PRINCIPAL INVESTIGATOR(s): Godwin Dumahasi

Please note that a final review report must be submitted to the Board at the completion of the study.

Please report all serious adverse events related to this study to 37MH-IRB within seven (7) days verbally and fourteen (14) days in writing.

This certificate is valid till 06 February 2025

DR EDWARD ASUMANU
(37MH-IRB, Vice Chairman)

INSTITUTIONAL REVIEW BOARD
07 FEB 2024
37 MILITARY HOSPITAL ACCRA

Cc: Brig Gen PK Ayibor (Jr)
Commander, 37 Military Hospital

APENDIX F

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES

TELEPHONE: +233 - (0)508387041 / (0)530788233
EMAIL: hper@ucc.edu.gh

Department of HPER

UNIVERSITY, CAPE COAST

Our Ref: **ET/HTP/21/0010**

15th November, 2023

The Commanding Officer
Institutional Review Board
37 Military Hospital
Neghelli Barracks
Accra

INTRODUCTORY LETTER: GODWIN DUMAHASI (ET/HTP/21/0010)

The above named person is a student of the Department of Health, Physical Education and Recreation of the University of Cape Coast. He is pursuing a Doctor of Philosophy degree in Health Promotion. In partial fulfilment of the requirements for the programme, he is conducting a research for his thesis titled **"On-Site Safety Practices and Health Experiences of Deathcare Workers in Western Region, Ghana."**

He has defended his thesis proposal and has passed. I therefore kindly request that your office assists him to acquire Ethical Clearance to enable him conduct the research.

Counting on your usual co-operation.

Thank you.

Edward Wilson Ansah (Ph.D)
(Head of Department)
Tel.: +233 (0)247703379
Email: edward.ansah@ucc.edu.gh

C/o Department of Health, Physical Education and Recreation
University of Cape Coast
CAPE COAST

November 21, 2023

The Chairman
Institutional Review Board
37 Military Hospital
Neghelli Barracks
ACCRA

Dear Sir,

APPLICATION FOR ETHICAL CLEARANCE

I am humbly applying for Ethical Clearance from the Institutional Review Board, 37 Military Hospital (37 MH-IRB), to enable me collect data for my research.

I am a Doctoral Candidate studying "On-site Safety Practices and Health Experiences of Deathcare Workers in Western Region, Ghana." I have successfully defended my "Thesis Proposal" and wish to commence data collection.

Enclosed, please find my proposal based on the 37 MH-IRB guideline on proposal submission for your consideration.

Respectfully submitted for consideration, Sir.

GODWIN DUMAHASI