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OCCUPATIONAL HEALTH AND SAFETY STATUS OF WORKERS IN THE GARMENT INDUSTRY IN GHANA

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ABSTRACT

The clothing manufacturing industry is generally perceived as a safe place to work. Compared to other industries, there are relatively few serious accidents in clothing plants. The major health risks in this industry do not arise from immediate, potentially fatal hazards. Instead, the risks that clothing workers face are the types whose effect accumulates over time. This paper describes health and safety compliance level in the Ghanaian garment manufacturing industry. Qualitative research method was used to examine the nature of prevailing conditions at the garment manufacturing workshop with particular reference to safety environmental compliance in the Kumasi, Accra and Tema Metropolis. Interview and observation were employed to obtain data from respondents. Grounded theory analysis was employed in the data analysis. The study revealed that, sewing machine operators at the local industry show little concern about safety and healthy environmental compliance. Workers at the clothing industry were not bothered about the long-term effects regarding safety lapses at their job places. It was recommended that fashion design institutions, government agencies and the local garment associations should collaborate to organise training workshops for garment workers on safety and its related hazards.

Keywords: Occupational health, safety, garment, garment manufacturing industry, workshops

1. INTRODUCTION

Workplace health and safety are important factors in any sewing industry either in hand sewing, using a sewing machine, both an electrical and a manual sewing machine. Subrata, Debashis, Saikat, Sriporna, & Shah, (2015) report that work related

injuries are a major public health problem resulting in serious socio-economic consequences. Individuals encounter several risk factors, such as awkward arm, neck, trunk, leg postures and back pains (Gunning, et al., 2001). Safety measures have to be taken seriously especially when sharp pointed objects are used such as, scissors, tacking pins, needles, and other equipment (Ahmed & Hossain, 2009). Generally, in Ghana, the garment workers suffer from vertigo, headache, low backache, joint pain, respiratory distress, anaemia, and eye related defects. Again, they suffer from needle prick injury, cut injury and burn injury (Drusilla, Deardorff, & Stern, 2011). In the world market, the competitiveness of the garment industry is much affected by the ill health of the workers, since ill health largely contribute to decrease in the labour productivity. Physical environmental factors have been found to be the main cause of the health problems that the garment workers suffer. Bheda (2004) argued that most of the health problems that the garment workers suffer arise from the occupational hazards including long working hours, absence of leave facilities, congested and overcrowded working conditions, absence of health facilities and safety measures, absence of staff amenities, lack of safe drinking water, low awareness level of workers and some others.

On the other hand, Jana (2008) observed that because of excessive workload and awkward postures, forceful exertions, repetitive motion, and heavy lifting workers may have exposure to undue physical stress, strain and overexertion, including vibration. Mostafizur (2011) found that workers in the clothing industry often suffer from different types of diseases and illness including headache, fainting, eye stain, cut injury, fatigue, frustration, heart disease and so on. Yufei, Youliang & Qiaoling (2012) found that some fabrics used from clothing might be affected by microorganisms resulting in odour, loss of colour and even mechanical degradation on clothing standards compliance assessment eventually having adverse effect on human health. The occupational health and safety condition of the clothing workers are gradually getting more critical and complicated. Often fire also destroys huge wealth of garment industry, which creates a great problem for producers, consumers and the national economy (Mostafizur & Sobuj, 2011). Moreover, most of the garment factories are located in the commercial areas of Ghana such as Accra, Takoradi, Tema, Kumasi, etc. Besides, many of the garment factories hardly comply with safety rules (Mostafizur & Sobuj, 2011) .The clothing workers in Ghana constitute a lion share of the total labour force, reducing unemployment and bringing most of the country's foreign currency. However, workers are exploited easily due to lack of technical knowledge and training. When appropriate measures are taken these problems can be prevented. Therefore, due to the importance of the occupational health this study was conducted to establish the occupational health and safety concerns among the workers in selected clothing industries in Ghana.

Uttal (1983) defines safety culture as consisting of shared values (what is important) and beliefs (how things work) that interact with an organisation's structure and control systems to produce behavioural standards (the way we do things round here). A poor health and safety culture is likely to lead to weaknesses due to problems at the person's work interface. A culture is a way of doing things that is shared, taught or copied. Everyone in a particular culture tends to do things in a similar way, which they would consider as the norm (Uttal, 1983).

A poor health and safety culture appears to endorse an atmosphere where not complying with safe working practices is acceptable. Such atmosphere does not help the organisation to take effective action to solve health and safety problems. Quite often, organisations that have a poor safety culture can have the same underlying attitude to all process and procedures resulting in poor product quality and financial control (Turner, Pidgeon, Blockley, & Toft, 1989).The health and safety culture of an organisation is an important factor in ensuring the effectiveness of risk control. The health and safety management system therefore is an important influence on the safety culture, which in turn affects the effectiveness of the health and safety management system (Mostafizur & Sobuj, 2011). Aspects of the safety culture therefore forms part of the overall process of measuring health and safety performance. The term 'health and safety climate' has been used to describe the tangible outputs of an organisation's health and safety culture as perceived by individuals or work groups at a point in time. The health and safety related behaviour of individuals at all levels of the organisation is influenced by the health and safety culture, and the behaviours in turn shape the culture. Behaviours, which support and promote a positive health and safety culture and an effective health and safety management system, need to be included within the measurement processes (Mostafizur & Sobuj, 2011). Researchers have been studying occupational safety since the 1930s and at least two trends have emerged (Alyssa & Lisa, 2010). Firstly, there is much greater emphasis on psychosocial factors affecting safety, for instance social exchange (Hofmann & Morgeson, 1999), communication (David & Adam, 1998) and safety climate (Zohar, 1980). Second is that proliferation of statistical methods to model multilevel organizational data has spurred an integration of contextual (organization and group-level) safety factors such as safety climate with individual-level safety factors such as employee knowledge, skill, cognition, and motivation to help understand worker safety (Hofmann & Morgeson, 2003; Zohar & Luria, 2005). Schneider proposed that different kinds of climates function within a given organization and those climate assessments should take on a particular strategic focus, such as customer service, quality, and safety (Zohar, 1980). With regard to safety climate, several researchers have concluded that positive safety

climates occurs when managers of organizations show commitment and are personally involved in safety activities, provide and support safety training programs, and emphasize safety issues within the organization and when investigations involving accident are oriented toward problem solving and counselling. Therefore, an organisation's safety culture consists of its shared working practices, its tendency to accept or tolerate risk, how it controls hazards and how it deals with accidents and near misses (Pidgeon, 1991).

Pidgeon (1991) notes that a positive safety culture has three key elements:

i. Working practices and rules for effectively controlling hazards ii. A positive attitude towards risk management and compliance with the control processes.

iii. The capacity to learn from accidents, near misses and safety performance indicators and bring about continual improvement.

Mostafizur & Sobuj (2011), opine that presently, most of the garment's industry show little concern about the basic safety issue of garments worker. In view of that, frequent unexpected accidents occur which eventually causes huge losses of both workers and to the owners.

The global garment industry is valued at three trillion dollars and is one of the most important sectors of the global economy creating jobs and clothes for people all over the world. It accounts for 2 percent of the world's Gross Domestic Product (Strijbos, 2016). The sector employs over 25 million workers in more than 100 countries. Many individual producers in this industry in the developing countries work long hours under strenuous conditions with very low income, far less than a living wage (Strijbos, 2016). The concerns raised by most garment workers are long working hours and forced overtime. Another bad working condition in the garment industry is the handling with the workers' health and safety. Eye strain, exhaustion and debilitating overuse injuries occur because of poor, long hours and constant pressure to meet production workload. The illnesses are often undiagnosed and untreated. If employees take some time to get medical care or to recover from an injury or illness, they may experience cuts in wages or also be fired. In many factories, workers do not receive clean drinking water nor are they allowed to use the toilet when they need to. The reproductive health may be harmed by exposure to noise, overwork and exhaustion. In Bangladesh, for example, around 200 workers died and many more were seriously injured in garment factories fires between June 2004 and June 2006 because of no emergency exits, people were trapped in the factories and most died in a mass panic (Jahan, 2011). In some garment factories, women who are applying for work are asked if they are married, the reason for it is that some employers only hire unmarried women with no children and sometimes women must sign an agreement not to get pregnant as long as she works at the

factory. Factories workers in most fashion industries often do not receive regular employment contracts. Therefore, they have no means of compensation if their employers fail to respect labour laws like minimum wages, working hours, overtime payment, health benefits and other ones. Especially immigrants do not get contracts and so they are not accepted as normal in the industry (Bheda, 2004). The worst treated are the casual workers, because they are hired with a temporary contract which is then renewed continuously to avoid legal responsibilities like health insurance. This is particularly common in Indonesia, Ghana and many countries across the world. In many of the firms, the management prevent workers from organizing unions and workers who are joining will be fired.

In 2005, the United Nations Secretary-General appointed a Special Representative on human rights and transnational corporations and other business enterprises. John Ruggie was nominated to this post and in 2008 he proposed a "Protect, Respect and Remedy" Framework on business and human rights (Office of the Commissioner for Human Rights, 2011). In 2011, he advocated, "Guiding Principles are not intended to create new international law obligations, but to establish guidance for companies on Business and Human Rights". The principles were endorsed by the United Nations Human Rights Council in order not to violate human rights in their activities, which include safety at the health and safety measures at the workplace (Office of the Commissioner for Human Rights, 2011). In the wake of the Rana Plaza tragedy that occurred in Bangladesh on 24 April 2013, two reports on the implementation of the Organisation for Economic Cooperation and Development (OECD) guidelines in the textile and clothing sector were issued in December 2013 by the French NCP and in June 2014 by the Italian NCP. The reports formulate practical recommendations to assist enterprises and their stakeholders in acting appropriately to strengthen application of the Guidelines to avoid disastrous accidents (NCP, December 2013).

Workers in the garment industry may be hired by large factories as core or contract workers, hired by small units, or work under subcontracts from their homes. There are also self-employed garment makers who produce for local customers or markets (Marilyn, Chen, & Tate, 2000). While some garment and textile workers are employed in factories or workshops, a large proportion are subcontracted home-workers who carry out paid work for firms/businesses or their intermediaries, typically on a piece-rate basis, within their own homes (Marilyn, Chen, & Tate, 2000). It is suggested that as much as 60 per cent of garment production, especially of children and women's clothing, is done at home (Martha, Sebstad, & O'Connell, 1999). Women constitute a significant majority of the homeworkers who construct clothing for the global apparel trade. In some countries, the garment industry stands

out as the largest employer in manufacturing. However, the workers in the industry are often informally employed and homebased making them invisible and rarely represented in national statistics (Chen, Sebstad, and O'Connell 1999).In the export garment sector, the use of contract labour, rather than employees, is mostly practiced

in a number of countries, including Bangladesh, India, Pakistan, Turkey and Ghana. Chan (2004), notes that contract labour occurs in first tier as well as lower tier factories. The purpose of this research was to gain in-depth understanding of the health and safety conditions of the garment-manufacturing workers in Ghana and to determine guidelines for creating proper safety environment at the local garments firms.

2. METHODOLOGY

In all, 30 respondents participated in an event on sustainable clothing were grouped into 4 categories for the interview. Target population for the study comprised lecturers and students from Kumasi Technical university (KsTU), University of Education, Kumasi Campus (UEW,K) and Kwame Nkrumah University of Science and Technology (KNUST) and garment producers in Kumasi, Accra and Tema. Purposive sampling method was used to select participants for the study (Creswell, 2012). One-on-one interview and observation were the tools executed in order to understand the occupational health and safety status of the workers in the garment industry. Qualitative research method was used in order to gather and analyse trend from the data obtained through interview and observation. The interview and observation used were not to make generalized deductions as in a mass survey, but to comprehend various persons' recognition of specific circumstances and experiences by targeting various range of experiences of respondents. Situational analysis of the data was performed based on the following criteria: present conditions of the garment workers in Ghana, aware level of the physical environmental factors that affect their health and of the recommendations that could overcome the health problems of the garment workers in Ghana. Table 1 offers the various categories of respondents engaged for data collection.

Table 1: One-on-one interview participants

Category	Population for the Study	Accessible Population
1	**Garment Producers**	
	Small-Scale Firm	
i.		
	Kumasi	4
	Accra	4
	Tema	4
ii.	***Large-Scale Firm***	
	Dignity TRTD limited (Accra)	2
	Kas Fashion (Kumasi)	2
	Unijay Limited (Kumasi)	2
2	**Institutions of Learning**	
	Kumasi Technical University	
	Fashion lecturers	2
	Fashion students	2
	University of Education	
	Fashion Lecturers	2
	Fashion students	2
4	**Governmental Agencies**	
	MOTI	2
	NBSSI	1
	Ghana Standards Authority	1
Total Participants for the Study		**30**

3. RESULTS AND DISCUSSIONS

The results of the study are presented and analysed descriptively, conclusions drawn and recommendations made toward improving on health and safety of workers in the garment manufacturing industry in Ghana.

For purposes of anonymity and confidentiality, names of respondents were not included with their responses. For example, respondents from small garment manufacturing firms were identified with SGP 1, 2, 3, in that order respectively, and those from the large garment firms were identified with LGP 1, 2 and 3 respectively. The respondents from government agencies were identified with GA 1, 2, 3, etc. respectively while respondents from educational institutions were identified with TU 1, 2, 3 in that order respectively.

3.1 Present Health and Safety awareness Level of the Garment Workers in Ghana

Respondents from small garment firms stated that there was no need to worry about emergencies since they do not normally occur. In view of that, there have never been any clear-cut emergency plans against such eventualities. The researchers note that

this kind of ignorance exhibited by the workers in the local garment industry points to the assumption that the local designers do not seem to anticipate any emergencies and if they happen at all, they are of low magnitude. The designers just ignore health and safety aspects of their job. When a question was asked on how they evaluate the safety conditions at the clothing industry, this was some of the responses:

> *I do not see the fashion industry as having such an occupational risks as those at the catering industry where they rely on gas for production. Accidents at the clothing industry are manageable.(SPG3: personal communication, 13th April, 2018)*.

The respondents assume that accident at the sewing workshop cannot be too damaging to worry about. It was observed that none of the local garment manufacturing firm contacted had installed fire extinguisher. However, the respondents had no knowledge about what to do in the event of eventualities such as fire outbreak or needle piercing the workshop. On that same question, other respondent expressed similar remarks by stating that the level of safety consciousness at among sewing operators is very low, the workers are not do not cares about how they eat and drink at the shop, look at the kind of chairs we are using (SGP1: personal communication, 13 August, 2018)".

"Fashion designers don't care about who is visiting them, and most of the time they don't have big space to install their equipment (SGP6: personal communication, 13th August, 2018).

Former regional chairperson of Ghana National Tailors and Dressmakers Association (GNTDA) in the Ashanti Region of Ghana also voiced that emergencies do not normally occur at the workshop and when there was any, they were minor, and a matter of pouring oil on it.

> *As for emergencies, they don't normally occur in the sewing workshop. If even it happens, what we know is that iron may burn you or needle may prick your hand. In that case, we only pour oil on it. The chairs we are using must have backrest so when you are tired you can relax for a while. Most of the designers are still using the very chairs they were using when they were on apprentice training (SGP4: personal communication, 13th August, 2018).*

The local garment makers never anticipate that some devastating disaster can occur and cause serious damage to their business. In view of that, the designers do not see any need to insure their business against eventually. The finding is in consonance with the assertion made by Ahmed & Raihan (2014) that knowledge about occupational diseases and the capacity to pursue legal authority is very limited among garment workers. However, the situation was quite different at the

large firms as the workers were educated to be conscious of workplace safety and handling of emergencies. The Learning and Development Officer of Dignity DTRT Limited stated that, “In every department, we have fire points. We also have local fire brigade in-house trained by the Ghana National Fire Service. The training sessions engaged everybody in the factory” (LGP1: personal communication, 17 April, 2018).

3.2 Awareness of Health Problems Related to Production Facilities

The researchers observed that most of the local garment manufacturers were operating in some small space, sometimes in containers or kiosks with small window on it, so it appears that most of the workers are not concerned about workplace safety compliance. On the issue of space for production, one of the respondents conceded that the safety condition of the small scale industry is not the best. *Most of the operators are occupying small space because they don't have money to rent bigger space for production. Sometimes in container or kiosk with small window on it, so it appears that we don't care about the safety aspect of the job we are doing” (TU1: personal communication, 20th August, 2018).*

With regard to the layout of tools and equipment at the local small garment firms, the findings established that the local designers are not too bothered about the health implications of the kind of some of the equipment they are using and the environment they are working in. For example, no respondents contacted saw the need to secure chair that is fitted with backrest. Responding to a question on that matter, the former regional chair of GNTDA made this statement when it was posed to him about how important the local garment makers treats the following at the workshop; lighting system, ventilation, and kind of chairs:

> *“We do not have backrest for our chairs when working because it is not important since we have to get up to press, cut and fuse stiff. I know ventilation and proper lighting are good but as for the chairs, our work doesn't allow us to sit all the time so there is no need for backrest and comfort chair” (SGP4: personal communication, 13th August, 2018).*

In response to the state of lighting, ventilation and kind of chairs used, one of the respondents in a small garment firm intimated that in general, the chairs they were using were not comfortable to use at the workshop. Space had been their problem and they could install only one table for cutting and doing all other things (SGP6: personal communication, 13 August, 2018). The researcher observed that the very

th table used by small garment designers for laying and cutting was used for doing ironing such that workers have to cue to do those works as shown in Plate 1.



Plate 1: Same table used for cutting and ironing by all workers at the small garment firms.

Those characteristics exhibited at the small garment industry shows that Ghanaian garment manufacturers are unable to maintain the health condition prescribed by the World Health Organisation "Health is a state of complete physical, mental and social wellbeing and not merely the absence of diseases or infirmity" (WHO, 1948). Responding to the same question, another respondent in the small garment firm (SGP7:personal communication, 15 April 2018) was of the view that the chairs they were using do not have th backrest and admitted that they intermittently experienced back pains during prolonged sitting. This suggestion reaffirms Jana (2008) who discovered that due to excessive workload and awkward postures, forceful exertions, repetitive motion, and heavy lifting workers may have exposure to undue physical stress, strain and overexertion. The study found that large garment industries on the other hand are much concerned about safety compliance for workers. On that note, the manager of Kas Fashion (LGP2: personal communication, 19 April 2018) gave his views about how his industry handles health and th safety related issues. The respondent expressed worry that the local does not seem to care about health of the worker. However if industries do not take good care of the people, it will adversely affect the entire output (Ahmed & Raihan (2014).

It could be inferred that provision of enabling environment for workers to get their comfort while working is paramount in the large garment industry unlike the small firms. Manager of Kas Fashion further explained that each sewing machine at the industry was fitted with a separate light and there is enough space for movement and storage. The researchers observed that the small manufacturers do not have place of convenience or wash room, place for eating and there is inadequate space for storage of tools and materials. The floors of the workshop are cluttered with electrical cables

and materials. Most of them are operating in small space, sometimes kiosks with little or no ventilation. They also do not have protective clothing and dress-code for both male and female workers. One can find machine operators with too long hair which could be entangled in the moving part of the machine causing injury the operator. It was also observed that some workers were found eating at the workshop while operating the sewing machine, an attitude which is quite unhygienic and could detract the worker's attention and cause damages and injuries at the workplace. Studies have shown that vertical installation of cables will facilitate free movement at the sewing laboratory thereby minimising accident.

As reported by Mostafizur (2011), Garment manufacturing, like other industrial processes, can be hazardous work. It is necessary for employers and workers to be aware of the hazards associated with garment manufacturing and take precautions to guard against work-related illnesses and injuries. Because of too much flammable materials such as cotton and other chemical in garments industry, there is a great probability of fire outbreak at any time if the maintenance is poor as happened in Bangladesh in the year 2000 where more than 5000 workers were killed (Mostafizur, 2011). Therefore, proper ventilation, respiratory protection and other personal protective equipment are important to protect workers during operation. In the case of Ghanaian small garment manufacturers, compliance to safety is mostly neglected even though some of the operators are aware of the occupational related health challenges. Plates 2 and 3 provide the conditions at the small and large garment manufacturing laboratories.



Plate 2: Inadequate space leading to poor ventilation at the small garment firm,
Source: Field research, 2018



Plate 3: Adequate space, good ventilation and lighting at large garment firm Source: Field research, 2018

Level of Training on Handling of Emergencies

With regard to insurance, all the respondents sampled from the garment industry were appreciative of the importance of insuring garment production firms against eventualities however, they were uncertain they could generate funds for the payment of premium consistently. They are afraid that the premium might be too high to bear. One of respondents voiced that he had inquired about insurance but was scared of the payment of the premium so he could not register the business with any insurance company.

> *"In fact, I've done one or two consultations on insurance but the problem is the premium which I don't know whether I can pay" (SGP7: personal communication, 15 th April 2018).*

> *"As for emergencies, they don't normally occur in the sewing workshop" (SGP4: personal communication, 13th August, 2018).*

The researchers observed that some of garment producers are not particular about their health at the workplace. Individuals encounter several risk factors at the workplace, such as awkward arm, neck, trunk, leg postures and back pains. Safety measures have to be taken seriously especially when sharp pointed objects are used such as, scissors, tacking pins, needles, and other equipment (Ahmed & Hossain, 2009). The awareness level at the large-scale industry is much higher compared to that at the small-scale subsector. In the sense that at the large-scale garment sub-sector, there is scheduled training on health and safety issues for worker. The Learning

and Development Officer of Dignity DTRT Limited made a statement, which suggests that management at the large garment however were more concerned about staff safety. He indicated that management organises talk shows and lectures aside the established fire brigade training at the industry. According to the officer, the demonstrations were done for every staff of the factory. In the event of fire outbreak, there were trained personnel at the factory who could act quickly to put out the fire. They were trained in such a way that if the situation goes beyond their control, they could also exit to save their lives (LGP1: personal communication, 17 April, 2018). It could be inferred th from the data that large firms are mainly concerned about proper ergonomic compliance at the workplace.

As the large-scale, industries do their best to comply with the International Labour Organisations' (ILO) rules on safety at the workplace, the small garment subsector seem to be adamant about health and safety situations at the workplace and do not have training on what to do in event of emergencies. Occupational Safety and Health (OSH), including compliance with the OSH requirements pursuant to national laws and regulations, are the responsibility and duty of the employer. The employer should show strong leadership and commitment to OSH activities in the organization, and make appropriate arrangements for the establishment of an OSH management system (ILO-OSH, 2009).

4. CONCLUSIONS AND RECOMMENDATIONS

Analysis from respondents inferred that there was low level of awareness on emergency responses at the small garment firms, which stem from the fact that workers do not seem to anticipate any serious emergencies. The designers just ignore health and safety concerns associated with their job based on the hope that serious emergencies cannot occur.

None of the respondents at the small garment firms had installed fire extinguishers, though they are aware of possible fire outbreak. Respondents had no knowledge of what to do in the event of fire outbreak or other emergencies at the workshop. It was noticed that workers do not cares about how they eat and drink at the shop, the kind of chairs being used are not comfortable and they do not have backrest. Respondents thought that emergencies do not normally occur at the sewing workshop except few minor injuries, which are minor. It also revealed that managers of the local garment firms have not insured the businesses due to anxiety of high premium payments. The awareness level at the large garment firms is much higher compared to that at the small firms. The reason is that there is scheduled training on health and safety management for worker at the garment factories. The

industries try as much as possible to comply with the ILO regulations, the small manufacturers appear adamant about health and safety situations at the workplace. With regard to equipment, the findings established that the local designers are ignorant about the health implications of the kind of equipment and environment they operate. It was observed that there was inappropriate height of work surface, which result in the workers straining themselves on work surface. Their working conditions create poor neck and back postures that are maintained for extended periods of time which increases stress on the neck, back, legs and feet. The study found that sewing tables being used are not easily adjustable. It was noticed that working tables that are too high cause workers to have elevated shoulder postures. Moreover, when the working tables are too low they cause the operator to wrongly lean forward and flex his or her neck. It was recommended that The Ministry of Trade and Industry in collaboration with Ghana Health Services should organise periodic education for sewing operators on common ergonomic problems association with each of the main departments of the garment industry: cutting, assembly, pressing and finishing. Such education should cover work practices that create hazards for workers and techniques that reduce the risk.

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