Health and Safety Issues for Women Working in the Ready-Made Garment Industry in Bangladesh

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ABSTRACT

In the 1980s, Bangladesh entered the global market by establishing export-oriented industries, the largest of which was the ready-made garment (RMG) industry. This industry has recruited a mainly female workforce consisting of millions of poor women with little formal education. Coming from mainly rural areas, they are drawn to the cities to work in the RMG factories there. This group of women has normally assumed the traditional roles of stay-at-home wife, mother or daughter, hence their engagement in paid work as migrant labourers presents a new challenge in the form of their having to fulfill ‘dual roles’. Combined with workplace health and safety issues associated with the RMG industry, this can have significant implications for their physical health and mental wellbeing. Yet, it was not until the 2013 Rana Plaza incident, which killed over a thousand workers, that the world’s attention focused on the issues of health and safety of female garment workers in Bangladesh.

Although the RMG industry contributes significantly to Bangladesh’s economic development, helping to raise it to the status of lower-middle-income nation, the benefits to the nation have come at a considerable cost to these women, with consequences for their physical and mental wellbeing. Regrettably, these consequences have not been adequately investigated and little data is available to fully understand their health needs and working conditions.

This research aims to fill this gap by offering a more in-depth exploration of the health and safety issues as they are experienced by the women in the RMG industry in Bangladesh. It will do so by focusing on understanding their work, including the tasks, work environment, and the treatment they receive at work. It will also present and discuss women’s voices about their experience at work, incorporating key stakeholders’ views and the researcher’s own observations, in order to examine the health and safety issues of these workers through a
gender lens.

Using qualitative research methods, the study was conducted in four factories in two industrial areas of Dhaka district during the eight months from December 2015 to July 2016. Data collection included a literature review, 20 in-depth interviews and four focus-group discussions with female garment workers, as well as worksite and household observations. Further, 14 key-informant interviews were conducted with officials from the Ministry of Labour and Employment, health-service providers within the garment factories, factory managers, and representatives of the Bangladesh Garment Manufacturers and Exporters Association. The data collected were analyzed using a framework analysis approach.

The women reported that paid work creates an opportunity for them to earn their own income, and hence improve their families’ living standards and education. However, they also reported mental and physical health issues due to the stressful nature of the work (e.g., long work hours with few breaks and sitting in one position for long hours); and the work environment (e.g., heat and dust, noise, plus poor lighting and ventilation) They are also under constant threat of losing their jobs because of their ‘slow’ work habits and in more serious cases, separation from their children, pregnancy, the double burden of work and domestic expectations, as well as the threat of physical and verbal violence in the workplace.

Factories provide health services through their clinics, but these lack the proper medical facilities required to manage work-related injuries and other health conditions, especially the workers’ mental health problems caused by stress and anxiety. Workers generally do not access these limited services. In particular, pregnant workers are less likely to do so, for fear that revealing their pregnancy to their supervisors will result in a loss of employment. Further, the workers cannot easily access government hospital services, due to their long work hours. Similarly, they are blocked from using private health services because of the high costs entailed.
Their employers seem focused primarily on profit and on meeting quotas in a buyer-driven market, such that the health of workers appears to be a low priority. Furthermore, this study found that the government, despite its obligations under international conventions, lacks the resources and capacity to monitor working conditions or to ensure compliance with existing labour regulations.

This study found that female workers participating in paid work in the RMG industry are vulnerable to significant short- and long-term physical and mental health problems. It concludes with three sets of recommendations to (a) address the health and safety of workers, (b) build the capacity of the government’s Occupational Health and Safety (OHS) system, and (c) enlist the support of global buyers in supporting proper OHS in the RMG industry. This is important not only for the government and the industry itself, but for the whole society to recognise the important role that the female garment workers play in the national economy. As such, this study takes the position that there is an urgent necessity to improve these women’s health and safety, not just for their own sake, but also for the sustainable development of the nation.
STATEMENT OF ORIGINALITY

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Signed

________________________
Sadika Akhter
Date: 9th March 2018
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LIST OF PUBLICATIONS

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The following papers have been submitted for publication and are currently under review:


LIST OF ABBREVIATIONS

AIG: Assistant Inspectors General
ANC: Antenatal Care
BBS: Bangladesh Bureau of Statistics
BGMEA: Bangladesh Garments Manufacturers and Exporters Association
BEPB: Bangladesh Export Promotion Bureau
CEPH: Centre for Environment and Population Health (Griffith University)
DIFE: Department of Inspections for Factories and Establishments
DIG: Deputy Inspector General
EPZ: Export Processing Zone
EU: European Union
FDG: Focus Group Discussion
FDI: Foreign Direct Investment
GDP: Gross Domestic Product
GNI: Gross National Income
HDI: Human Development Index
HREC: Human Research Ethics Committee
ICCP: International Covenant on Civil and Political Rights
ICDD: International Centre for Diarrhoeal Disease Research Bangladesh
ICESCR: International Covenant on Economic, Social and Cultural Rights
IDIs: In-depth Interviews
ILO: International Labor Organization
IMF: International Monetary Fund
IPV: Intimate-partner Violence
KIIs: Key Informant Interviews
LFS: Labour Force Survey
LMIC: Low-Middle-Income Country
MDG: Millennium Development Goal
M&E: Monitoring and Evaluation
MFA: Multi-Fiber Agreement
MMR: Maternal Mortality Ratio
MNCs: Multinational Corporations
MOLE: Ministry of Labour and Employment
MSDs: Musculoskeletal Disorders (MSDs)
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<td>Non-Communicable Disease</td>
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<tr>
<td>NGO</td>
<td>Non-Government Organization</td>
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<td>OHS</td>
<td>Occupational Health and Safety</td>
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<td>RMG</td>
<td>Ready-made Garments</td>
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<td>SAPs</td>
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PART I
1.1 Introduction

Millions of workers in Asian developing countries work in the ready-made garment (RMG) industry, but there is still little in the literature on how their health and safety are affected by their work, and on how they struggle with the burden of both paid and domestic work (Mezzadri 2017; Nathan, Tewari and Sarkar 2016). For example, in 2013, more than 300 Cambodian workers in a garment factory fainted on the job. The reasons included long working hours, heat, and dehydration (Makurat et al. 2016; McMullen 2013).

Some illustrations of the hazardous work conditions faced by factory workers in Asian developing countries are as follows:

In September 2012, a fire in a textile factory in Karachi, Pakistan, killed nearly 300 workers and injured several hundred more because the exits were locked. This incident is recognised as the deadliest industrial fire in the country’s history (Rehman, Walsh and Masood 2012).

In 2016, in a suburb of Delhi, India, a fire broke out at a garment factory and 13 workers died while asleep. Investigations revealed that the reasons for the fire were either faulty wiring or the smoking of cigarettes (Al Jazeera News 2016).

In November 2012, on the periphery of Dhaka, the Tazreen garment factory burned down, resulting in the deaths of more than 120 workers (mainly women) (Bajaj 2012). A report found that their deaths, mainly from burns, were caused by gaps in safety measures, including a lack of fire exits and fire extinguishers, the illegal construction of the building, poor wiring, and exit doorways blocked by piles of clothing. The factory did not have a fire-safety certificate (Bajaj 2012). It was further reported that when the fire alarms started to ring, female workers
attempted to exit the building, but were ordered by their supervisors to keep working. The supervisors informed the women that it was not a real fire alarm, only a test, though the women reported that they felt they were suffocating due to smoke inhalation (Bajaj 2012).

Just a few months after the Tazreen fire incident, on the morning of April 2013, the collapse of the nine-story Rana Plaza building became the world’s worst industrial accident, causing the death of 1136 workers and injuries to more than 2500 workers, most of them women (Greenwood, Scott, Walker, Stoker and Mary 2003; ILO 2016c; Jacobs and Singhal 2017; Manik and Yardley 2013).

These incidents are just some examples of the dangerous work environments and lack of Occupational Health and Safety considerations (OHS) faced by workers in these industries. This suggests that the economic improvements brought by industrialization in certain Asian countries has been at the cost of the lives, health, and wellbeing of the predominantly female workers (Lopez-Acevedo 2016; Jacobs and Singhal 2017). As a result of these incidents, the media, NGOs, and researchers have started to pay attention to selected safety issues such as building and fire safety, but rarely have they focused on the health issues faced by women workers in RMG factories (Prentice and De Neve 2017; Siegle 2017). This study proposes to investigate the health and safety issues of female workers in the RMG industry in Bangladesh, focusing on the women’s own experiences and their stories.

The current chapter provides an overview of this dissertation on women’s health and safety issues in the RMG industry in Bangladesh. It will briefly present the background, rationale, methodology and scope of the research. Finally, it will explain the structure of this thesis.
1.2 Background

Work, both paid and unpaid, plays a crucial role in the lives of women and men all over the world (ILO 2009). The total global workforce (both the formal and informal sectors) is 3 billion, of which women constitute 1.2 billion (ILO 2016b). Although the participation of women in paid work is increasing, the world of work is gender-segregated (Anker 1998; European Agency for Safety and Health at Work 2016). Most women work in the health, social, or retail sectors, followed by the manufacturing sector, particularly in developing countries (European Agency for Safety and Health at Work 2016).

Since the 1980s, the global adoption of an open-market economic policy has increased the level of industrialization in Asian developing countries (Qureshi 1996; Smith 1996). One of the major industries that have developed due to restructuring in this region is the RMG industry (Smith 1996). This industry has become the pillar of economic growth in many Asian countries in the last three decades (ILO 2015). In 2014, the Asia-Pacific region accounted for US$601 billion (59.5 percent) of global exports of garments and textiles (ILO 2015). This region features three of the world’s top five garment exporters and 10 of the top 20 (ILO 2015).

The RMG industry not only plays a key role in the Asian developing countries’ economic development but is also a major provider of employment, particularly for women (Rai and Waylen 2013). From 1970 to 1990, in Asian developing countries there was a noticeable change in women’s participation in industrial work, as it increased from 25 percent to 44 percent of the workforce (Mehra and Gammage 1999). An estimate suggests that more than 40 million people are working in this industry (ILO 2015). China and India have most of the workers - almost three-fifths - and Bangladesh, Indonesia and Pakistan each have more than 3 million workers in this sector, by far the majority. Yet again, most of these employees are women (ILO 2015). In
Bangladesh, it is estimated that over 80 percent of workers in the RMG industry are women (Hossain, Rana and Ahmed 2016; ILO 2016d).

Bangladesh was formed as an independent country in 1971. Subsequent to this, the country faced serious economic challenges due to famine and an import-oriented economic policy (Feldman and McCarthy 1984; Kabeer 1991a). However, in the early 1980s, Bangladesh initiated a series of economic reforms under the supervision of the International Monetary Fund (IMF) and the World Bank (WB) and announced a new industrial policy to move towards an export-led economy (Bhattacharya 1998). In that period, an export-oriented RMG industry was established in Bangladesh (Kabeer 1991a, 1991b). It has made a significant contribution to the country’s economic development, helping Bangladesh to become a lower-middle-income country and the second largest exporter of RMG, after China (WB 2015). The RMG industry is the largest export industry in Bangladesh, with earnings of US$34.85 billion in 2017; it now constitutes the backbone of the economy (BGMEA 2017; Hossain Ovi 2017).

The economic transition brought by the RMG industry has created significant employment opportunities in Bangladesh. Out of a total population of 160 million, 56.7 million people (95.3 percent of the available working-age population) are employed, 49 percent of whom are in the RMG industry (BBS 2017). Of the industrial workforce, 4 million are currently employed in 5000 RMG factories, the majority again being women (BGMEA 2016, 2017).

There are several reasons why this industry employs so many female workers. In short, foreign investors and employers hire unskilled female workers with a lower level of education to work in the RMG industry because they are deemed to have naturally nimble fingers (Elson 1999; Elson and Pearson 1981). Furthermore, these women are considered more docile, more likely to do tedious, repetitive work by accepting long hours at low levels of pay, and are seen as less likely to join a union or resist exploitation (Elson 1999; Elson and Pearson 1981; Kabeer and Mahmud 2004b).
Scholars have raised concern that these gender stereotypes regarding the recruitment of women for industrial work have adversely affected the health and safety of the female workers (Attanapola 2003, 2004, 2005; Hewamanne 2016; Nash and Fernández Kelly 1983).

According to an estimate by the International Labour Organization (ILO), globally every year, 374 million people suffer from occupational accidents and work-related diseases, with over 2.28 million deaths taking place (ILO 2017). It is also worth noting that annually, approximately 4 percent of the world’s gross domestic product (GDP) is lost in direct and indirect costs of occupational accidents and work-related diseases (ILO 2014b, 2017). In developed countries, data related to workplace health and injury is collected from various sources such as physicians’ reports, employer records, death records, hospital records, and workers’ compensation claims (Leigh, Macaskill, Kuosma and Mandryk 1999; Stieb, Boot and Turner 2017). However, developing countries face significant challenges in collecting reliable data on occupational health and safety issues, hence data on workers’ health and safety problems are limited (Khoury and Ioannidis 2014; Leigh et al. 1999). Thus, the true scope of the problem in developing countries is largely unknown.

The literature from other countries, especially those in Asia, reports a number of issues to do with the health of female industrial workers, especially those in the RMG industry. Concerning physical health and safety, the literature reports that the women who participate in unskilled work are at risk of adverse effects on their health and wellbeing, due to their work environment (Karim, Emmelin, Lindberg and Wamala 2016). Many studies about the effects of the physical health problems of industrial workers focus on musculoskeletal injuries and pain, especially neck, back and shoulder pain, and headaches among female garment workers (ADB 2016; Lacey, Lewis and Sim 2007; McCurdy, Samuels, Carroll, Beaumont and Morrin 2003; Toupin, LeBel, Dubeau, Imbeau and Bouthillier 2007; Wang et al. 2005). Some studies report only neck, back and shoulder pain (Messing, Tissot, Couture and Bernstein

Although musculoskeletal disorders (MSDs) have received the main attention in research in the field of OHS, the issue of mental health at work is less explored, especially in developing countries (ILO 2016c). Stress in the work environment can have a significant impact on employees, making this issue a major public health problem (Hassard et al. 2014; Hyde, Singh Chungkham and Ladusingh 2018; WHO 2017).

According to a global estimate by the World Health Organization (WHO 2017), the most common mental health problems at work are depression and anxiety, with more than 300 million people suffering from depression and 260 million people suffering from anxiety. These problems have significant economic costs, estimated at US$1 trillion each year in lost productivity (WHO 2017). Studies have found that industrial work is stressful, with issues of workload, type of work, and the behaviour of supervisors affecting workers’ mental health and wellbeing (WHO 2017). Further, women play a double role in paid (factory) and unpaid (home) work, which has an additional impact on their mental health, with symptoms of stress, depression, and fatigue (ILO 2012, 2016a, 2016c). The International Labour Organization (2012) suggests that low income, social expectations of the gender roles at home and work, and vulnerability to physical, verbal, and sexual harassment at work significantly affect the mental health of female workers.

Research in developing countries indicates that many women in the RMG industry experience physical and verbal abuse during work, which directly affects their mental health (Asia Floor Wage Alliance 2016; Attanapola 2003, 2004; La Botz 1994; Samarasinghe and
Ismail 2000). However, for these women, who have few skills and little education, working in the RMG industry offers the opportunity to earn cash income, but there are significant costs in terms of health and safety consequences (Kabeer 2014; Kabeer, Mahmud and Tasneem 2011; Nazneen, Hossain and Sultan 2011). Unfortunately, data related to the prevalence of health problems — including mental health at work — are not available in many Asian countries, including Bangladesh (Islam and Biswas 2015; WHO 2014, 2015).

As Bangladesh moves further towards an industrialized economy, occupational health problems have emerged as a concern, due to the unhealthy working conditions in some of its industries (WB 2015). The ship-breaking, RMG, and construction industries are known as the most dangerous in the country (WHO 2015). The RMG industry is particularly relevant as it boasts the largest workforce among the three, mainly composed of women.

In Bangladesh, the literature on female RMG workers who have few skills and little education has identified a significant change in gender roles and practices during the past three decades (Kabeer 2014; Karim et al. 2016). In traditional Bangladeshi society, women’s work was restricted to household chores. But now, they are increasingly involved in paid work and accordingly, traditional norms and beliefs are changing. Women have now become the ‘breadwinners’ and ‘decision-makers’ in many families, due to the earnings from their paid work. However, these gains can come at the cost of significant health consequences in their lives (Kabeer 2014; Kabeer and Mahmud 2004a, 2004b).

The health and safety of female RMG workers in Bangladesh has received a degree of attention over the last decade or so, but little formal literature has examined these issues. Nevertheless, some grey and some published literature have identified health problems such body pains, headaches, eye problems, weakness, and injuries among these workers (Absar 2002 2003, 2009; Paul-Majumder 1996, Paul-Majumder and Begum 1997). Meanwhile,
other researchers have concentrated mainly on labour rights and standards, fair labour practices, and working conditions (Absar 2009; Ahamed 2012, 2014; Ahmed, Greenleaf and Sacks 2014; Ahmed and Nathan 2014; AkteruJJaman and Ahmad 2014). Studies have also found that participation in paid work increases women’s workloads, family conflicts, and their vulnerability to male marital violence, which lead to depression and anxiety among female garment workers (Ashraf Ali 2014; Enloe 2015; Naved et al. 2017). Some grey literature and studies report that female RMG workers experience physical and verbal violence or sexual harassment in the RMG industry (Fair Labour Foundation 2005; HRW 2015a; Siddiqi 2003).

Following the Rana Plaza incident, measures have been taken to increase the safety of buildings and the physical infrastructure of factories in the RMG industry in Bangladesh (ILO 2014a). These measures include the Accord on Fire and Building Safety and a five-year (2013–2018) program of factory inspections and safety upgrades created by transnational non-governmental organizations (NGOs) and trade unions (Reinecke and Donaghey 2015). However, beyond the safety of the buildings, little has been done to promote the health and safety of these female workers (Anner and Bair 2016).

1.3 Rationale for this Research

A recent study in the area of women’s health and safety in the RMG industry noted that globally, good research into women’s health and safety is very limited (Prentice, De Neve, Mezzadri and Ruwanpura 2018). The authors call for research into female factory workers’ health and safety issues which consider the complex relationship in the gender roles of women at home and at work (Prentice et al. 2018). Further, researchers have made the substantial point that studies dealing with women’s health and safety rarely analyze gender as a broad influence on the health and safety issues of women at work (Doyal and Daykin 1999; Messing and Stellman 2006; Mezzadri 2016).
Bangladesh is one of the most prominent garment manufacturing countries in South Asia (Labowitz and Baumann-Pauly 2015). However, it must be remembered that the rise of this industry has been enabled by the world’s cheapest labour costs (Zajak 2017).

A further consequence of the Rana Plaza incident in 2013 has been pressure on the government of Bangladesh to improve the health and safety of workers in the RMG industry (ILO 2014a). The government has made progress in achieving a work safety alliance with the industry. This effort has focused heavily on the structural safety of the buildings, but the broader issue of the female workforce’s health has still been inadequately addressed. To date, very little research has been done on female garment workers’ everyday experience of health and safety problems (Prentice and De Neve 2017; Prentice et al. 2018).

The literature on the women in the RMG industry in Bangladesh focuses mainly on two areas of industrial work. One group of publications focuses on how factory work has created an opportunity for young, rural, uneducated women to participate in income-generating activities. Another set of publications focuses on how women are exploited by factory owners, through unhealthy working environments, excessive working hours and workloads, lower wage levels, and violations of human rights.

Although these types of evidence are necessary, the studies lack an insightful ethnographic narrative of the work environment and its impact on the health and safety of the female workers, because most of the research approaches are limited to quantitative methods. Thus, they are unable to provide information on how workers identify and experience the health problems emerging from participating in factory work. The work environment and health of the factory workers need to be studied beyond the closed system of the factory floor and more emphasis to given to the wider interactions of workers’ everyday life and health (Holmström 2007).
This study will attempt to fill this gap by examining the health and safety issues of the female workers as they themselves experience them, in order to identify comprehensive strategies for addressing the issues of health and safety in the RMG sector in Bangladesh.

1.4 Research Aim and Methods

The current research aims to bring new insights into the health and safety issues experienced by the female workers in the RMG industry, by investigating the workers’ own perceptions of their health and safety and how it affects their lives, in order to understand their views of the causes of their health issues and how they cope with health and safety problems connected with their work.

The study will also explore the influence of the dual role of these women, i.e. as workers and homemakers. Apart from the women’s own perspective, it will also shed light on issues relating to why and how the health and safety of female workers is neglected in this industry from the point of view of different stakeholders. This study has adopted a qualitative approach which includes an extensive literature review and a field study. Empirical data collection techniques include in-depth interviews, focus-group discussions, key-informant interviews, and observations. The fieldwork for the study was conducted in two cities in the Dhaka district, Bangladesh. It started by conducting in-depth interviews (20) with female workers, followed by interviews with key informants (14) at various levels: government officials, factory doctors, supervisors, and representatives from the Bangladesh Garment Manufacturers and Exporters Association BGMEA. After data collection, the study applied a framework analysis method to the qualitative data.
1.5 Scope of the Study

The study aims to examine the health and safety issues of the female RMG industrial workers, including both physical health and mental wellbeing. Importantly, this exploration extends the understanding of health and safety to the realm beyond the factory floor. It extends beyond a narrow understanding of health and safety issues by focusing on the specific gender issues of being a female worker who is also a mother, for example, the experience of violence in the workplace and the vulnerability of pregnant workers. It also adds to the understanding of these issues by investigating how various stakeholders in the RMG sector perceive workers’ health and safety problems. Such perceptions give an understanding of how global-buyer-driven production pressure affects the work environment. In terms of potential application, this research further identifies the government’s capacity and initiatives to improve the work environment.

Although the scope of the study is limited to the context of the Bangladesh RMG industry, it will nevertheless provide insights into the determinants of the health and safety of the female factory workers which could be applied to other similar settings.

1.6 Structure of the Thesis

This thesis consists of two parts. Part I contains four chapters based on the literature review, which provide the background and the rationale of this study. Chapter One provides the introduction and the other three chapters cover background information based on the literature review. Chapter Two introduces the broader concept of gender, health, and women’s health in the context of changing gender roles resulting from participation in paid work and how this impacts on the health of female workers.
Chapter Three provides a description of Bangladesh, the setting of the study, exploring the country’s national context, economic changes, and the rise of the garment industry, which has brought paid-work opportunities for female workers. Chapter Four examines a review and offers an analysis of the literature on the health and safety issues of female workers in the RMG industry in Bangladesh.

Part II consists of eight chapters on the methodology and research findings. Chapter Five describes the methodological approaches of this research, including study aims and focus questions, the conceptual framework, data collection and analyses, followed by ethical considerations for the research. Chapters Six to Ten provide findings based on empirical data for gender-specific health and safety issues of female workers: reproductive health, mental wellbeing and the burden of being a mother and a worker, plus abusive treatment at work. Chapters Seven and Nine have already been published, while Chapters Six and Eight have been submitted for publication and are awaiting review. Since these chapters are written as independent articles, they may feature some degree of overlap with each other. In order to avoid duplication, methods for all findings are combined in Chapter Five and the discussion sections have been synthesized in Chapter Eleven. The findings for each chapter are taken verbatim from either the published papers or submitted manuscripts.

Chapter Six describes the everyday health problems among female workers, how the women manage their lives and work despite having work-related health problems and injuries. This chapter examines the conflicting issue of responsibility for balancing productivity and health between the supervisors and workers. It also describes the health service provisions centered on factory clinics, along with access and availability issues.

Chapter Seven moves towards discussing how participation in paid work has changed gender roles for these women. It explores the lived experience of female workers as they strive to be mothers and family providers, often under high-stress conditions.

Chapter Eight presents the relevant health and safety issues beyond structural building
safety. It focuses on the physical and verbal violence experienced by female workers in RMG workplaces. In addition, it looks at and the social norms and attitudes of the key stakeholders underpinning this unhealthy workplace culture.

**Chapter Nine** takes a narrower focus, examining the relationship between work and health during pregnancy. It explores the risks associated with work stress, job insecurity, a lack of maternity benefits, and insufficient rest.

**Chapter Ten** provides an overview of the government responses within the RMG industry after the Rana Plaza incident, specifically its work to rebuild the capacity of the Department of Inspections of Factories and Establishments (DIFE) under the Ministry of Labour and Employment. It further describes the contextual factors and system challenges that constitute barriers to ensuring the health and safety of workers in the RMG industry, despite the improvements. The discussion section (**Chapter Eleven**) summarizes the findings, makes comparisons with previous research, and analyzes the implications of the findings, making a series of themed recommendations for practice, policy, and further research. This chapter also sheds light on the research’s strengths and limitations. Finally, concluding remarks are provided in **Chapter Twelve**.

**1.7 Conclusion**

This chapter has presented the research topic by providing a brief overview of the background, aims, methodology and rationale for this study. The background section describes issues around women’s participation in industrial work in Asian countries, the economic contribution of the RMG sector in this region, and the fact that it has changed gender roles, with the potential to impact on female workers’ health and safety, including their mental health. This chapter also describes the structure of the thesis, which consists of three key sections — introduction and literature review for background; methods and findings; and discussion, recommendations and conclusions.
The next chapter sets the background for this research by providing a critical literature review on gender, work, and women’s health in the context of changing gender roles due to women’s participation in paid industrial work.
CHAPTER 2

Gender, Work, and Women’s Health

2.1 Introduction

This chapter provides an overview of the key broad research field that underpins the research topic and the research question to be presented in Chapter Five. This chapter on gender, work, and women’s health will include a rationale for analyzing the conceptualizations of gender and health, with a particular focus on women’s health at work by academics and researchers. It will discuss the concept of gender in both modernist and postmodernist thinking. Furthermore, rather than focusing on a narrow understanding of women’s experience compared to men’s, it will discuss women’s health from a gender perspective. This will further address the changes in gender roles in developing countries and their influence on women’s health. Overall, this chapter will provide an overview of the current knowledge in this field and identify the relevant research gaps, so as to provide further context for the rationale for this research.

2.2 Understanding Gender

Gender as a concept emerged extensively during the 1960s to 1970s, a period known as the second wave of feminism or the modernist view of feminism (Dicker and Piepmeier 2016; Kessler and McKenna 1978; Kinse, 2004; Mann and Huffman 2005; Pilcher and Whelehan 2016). There are three main schools of thought in regard to second wave of feminism. The first is known as liberal feminism (MacKinnon 1983; Merchant 1990). It represents an approach which argued that every woman should have the same rights as every man (Hooks
2000; Kessler and McKenna 1978; Lorber 1994; Orenstein and Diamond 1990; Wollstonecraft 1982). The second school is known as Marxist feminism (MacKinnon 1983). Its main argument is that capitalist societies use women as cheap labour; that women are used as unpaid reproducers of the next generation of workers and unpaid household workers (Hartmann 1979; MacKinnon 1983; Rowbotham 1989). Followers of the third school, radical feminism, believe that men control and oppress women, and define men as the problem because of this perceived control and oppression (Eisenstein 1977; Lorber 1994; MacKinnon 1983). This pattern is also referred to as patriarchy (Kessler and McKenna 1978). Through patriarchy, women have been idealized as mother figures and restricted to a separate world — the home. Women are also seen as exploited by the sexual division of labour, with men working outside the home for money, while women work in the home on an unpaid basis (Lorber 1994, 2000; Lorber and Moore 2002; Rich 1995).

The second wave of feminism believed that inequalities between men and women were not determined biologically by their sex, but rather that inequality is socially constructed (Lorber 1994; Pollard and Hyatt 1999). The term ‘gender’ is used to indicate the social construction of sex roles (Kessler and McKenna 1978; Lorber 1994, 2000; West and Zimmerman 1987). Modernist feminists argued that it is not biology but the socially constructed concept of gender that determines what opportunities are offered to men and women (Kessler and McKenna 1978; Lorber 2000; West and Zimmerman 1987). According to modernist thinking, men and women have natural physical and behavioural differences based on their sex (Lorber 2000; Mitchell 2004; West and Zimmerman 1987). These differences are used to create clear gender roles in society: ‘men’s work’ and ‘women’s work’ (Lorber 1994; Lorber and

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1 Sex is seen generally as a biological or physical category of men and women which is created naturally (Kessler and McKenna 1978; Pollard and Hyatt 1999; West and Zimmerman 1987).
Farrell 1991; Mitchell 2004). As gender roles are perceived to be socially constructed, this concept of gender has created a division of labour which is associated with masculinity and femininity (Kessler and McKenna 1978). Men have been positioned in society as breadwinners, responsible for protecting and providing financial support to their family members, while in contrast, women are seen as caretakers of the home, husband, and children (Nelson and Burke 2002). Messing and Stellman (2006) further argue that besides their domestic work, women are also restricted to working more in specific types of formal work, such as in factories.

These socially constructed gender roles affect the lives, work, and health of women, — which is why it is important to understand the circumstances surrounding women’s health (Messing 2014; Messing and Mergler 2006; Messing, Tissot, Saurel-Cubizolles, Kaminski, and Bourgine 1998). In further stereotypes of men and women, the former are depicted as technically competent, aggressive, powerful, and rational, while women are seen as emotional, passive, helpless, and powerless, hence flexible, and submissive (Kessler and McKenna 1978, 2006; Lorber 1994).

In the 1980s, the second wave of feminism was critiqued via postmodernist thinking (Heywood and Drake 1997; Snyder 2008), which takes a different approach to analysing gender. It conceptualizes gender as a discourse (Flax 1987; Kinser 2004; Mann and Huffman 2005). The main difference between modernist and postmodernist thinking about gender is that in modernist thought, gender is an aspect of socially constructed acts that affect the lives of women and their work (Davis, Evans, and Lorber 2006; Dyck, Lewis, and McLafferty 2001). By contrast, in postmodern thought, gender is a category created by society, and women’s work can be categorized in a different way because all societies are currently undergoing changes in gender norms and taboos (Flax 1987, 1990; Hare-Mustin and Marecek 1988).
Modernist and postmodernist thought view gender in different ways. Modernism conceptualizes gender as material structures that determine the role and experience of men and women in society, while postmodernism argues how these experiences are determined through prevailing discourses. Further, these prevailing discourses reveal how gender persists in constructing women’s lives as workers and women. According to modernist thinking, the social construction of gender is a dilemma in that it compares a man or a woman through masculine or feminine qualities (Flax 1987, 1990; Hare-Mustin and Marecek 1988). On the other hand, postmodernist conceptualisations of gender seem to use gender as a verb, meaning that gender is not only a cultural construction, but rather, that it forces women to “become” women (Davis, Evans, and Lorber 2006; Dyck, Lewis, and McLafferty 2001). To ‘become’ a woman means something that a woman does, something that is done purposively by a woman in society. The main difference is that in modernist thought, gender is a social characteristic of women’s life (DiPalma and Ferguson 2006). In postmodern thought, gender is not only social construction of men and women; it also creates a class which reveals the differences between women based on their race, background, ethnicity, religion, and economic position. It also recognizes that a single woman can have different identities within herself (Glenn EN 1999).

These views of gender are basic for this thesis through the narrative of the female workers who are working in the RMG industry. The workers’ narratives (described in Chapter 6-10) will shed light on the dominant constructions of gender in regard to how these women negotiate and fight in the workplace to establish themselves as workers rather than as women. Analysing the female workers’ narratives through modernist and postmodernist views will reveal how gender continuously constructs female workers’ everyday experience of work and health. The incorporation of both a modernism and postmodernism lens in this study will provide new ways of understanding OHS research through work-related injuries, health problems, and safety issues encountered by women in the RMG industry in Bangladesh.
Moreover, these modernist and postmodernist lenses will broaden understanding from the narratives of the male supervisors (described in Chapter 6-8) regarding how discourses of power, masculinity, and patriarchy continue to impact the health and safety of the female workers in their workplace.

These social changes in norms and taboos have an effect on the health of individuals that needs to be understood (Addis and Mahalik 2003; Helman 2007). Hence, the next section will begin with brief review of conceptualizations of health through gender approach.

2.3 Conceptualizing Health

The World Health Organization (WHO) defines health as ‘a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity’ (WHO 1995a). This definition of health has evolved and expanded over time, reaching far beyond the consideration of pathogens and their cure. There are several broad models of health theory. Two of these dominate discussions — the behavioural aspect (health problems are caused by behaviours of the patient) and the social aspect [health is determined by many factors that are controlled by the whole society] (Doyal 1995; Doyal and Daykin 1999).

The bio-medical model, by contrast, tries to understand health as the absence of disease. In this understanding, curing diseases is the main aim of health professionals. It assumes that people have similar bodies and they can be treated in the same way (Doyal and Daykin 1999). As mentioned above, the behavioural approach suggests that the main determinant of human health is individual human behavior (Morris 2001), in that the behaviours of people are blamed for their illnesses. As such, this approach focuses more on disease prevention rather than on cure through treatment (Krieger and Fee 1994). From a broader perspective, the postmodern approach views health holistically. It includes multiple determinants of health, those being social, cultural, political and economic environments. Hence, all of these factors are involved in holistically
shaping the health and wellbeing of the individual (Doyal 1995; Doyal and Daykin 1999; Dyck et al. 2001). This approach to understanding the health needs of women is examined in the following section.

2.3.1 Women’s health

Traditional approaches such as bio-medicine and epidemiology state that it is biological and environmental factors that affect the health of individuals. As discussed above, this way of thinking has been challenged by feminists, who argued that gender roles play an important part in determining the health status of individuals, especially for women (Doyal 1995; Doyal and Daykin 1999; Helman 2007; Inhorn and Whittle 2001; Messing et al. 1998). They argued that women’s health needs to be understood through their life experiences, including their work at home and in the workplace, child-bearing, and work in the informal or domestic sector such as agriculture, as these experiences have cumulative effects on their health and wellbeing (Doyal 1995; Kane and Dennerstein 1999).

A number of women’s health activists have questioned the neutrality of defining health without considering gender approaches\(^2\) (Doyal and Daykin 1999; Hall 1989; Lorber and Moore 2002). Understanding women’s health problems through a gender approach was not a main focus of medical health research until the early 1990s, when medical health research was criticized for its lack of theoretical and methodological sensitivity in the study of women’s health problems (Dyck et al. 2001). A more systematic study of their health issues started in the 1990s, when launched by the International Conference on Population and Development in Cairo in 1994 (Doyal 1995).

\(^2\) The World Health Organization (1998) describes the gender approach in health as not only seeing health through biological factors or sex differences between men and women, but also considering the roles played by men and women due to social and cultural factors, and power relations that exist in society. These issues are important in protecting and promoting the health of women.
The Cairo and later Beijing conferences explicitly adopted the concept of gender as an important determinant of women’s reproductive health (Dyck et al. 2001). According to Dyck et al. (2001), after the Cairo declaration, most health research focused on women’s reproductive health problems and ignored women’s health problems in paid work due to their changing gender roles. The scholarship further argued the serious need to see women’s health problems holistically, in order to incorporate their changing gender roles into the paid workforce (Attanapola 2004; Doyal 1995; Kabeer et al. 2011; Razavi 2012).

2.4 Changing Gender Roles in Asian Developing Countries

The literature on gender and work identifies two types of work that women are involved in: reproductive work and productive or paid work (Bullock 1994; Cook 2009; Doyal 1995; Doyal and Daykin 1999). Reproductive work includes not only biological reproduction but also child-rearing and other household work such as cooking, cleaning, and taking care of the husband and other family members at home, including elderly family members, ill and disabled people (Cook 2009; Doyal 1995; Moser 1989). At a community level, reproductive work includes providing health care and education services mainly on a ‘voluntary’ and therefore unpaid basis and perceived as done in a person’s ‘free time’ (Moser 1989). The second category of work, productive work, refers to work done by women and men for payment. Productive work also includes agricultural production as independent farmers (that is, farmer-owners) or as wage workers (Moser 1989).

Men’s and women’s gender roles are changing due to cultural and economic changes in society (Messing and Ostlin 2006). Nowadays, women are more involved in paid (productive) work, while at the same time continuing to be involved in unpaid work at home - a change in the work pattern that is affecting the health status of these women (Doyal 1995). This is especially true in Asian countries, particularly for female factory workers in the manufacturing
industry (Fontana 2009; Jayaweera and Sanmugam 2001; Lie and Lund 1999; Zaman 2001; Zhang 1999). As indicated in Chapter One, women’s participation in the paid industrial workforce has grown immensely, especially in Asian developing countries, where the primary job market for women is the RMG industry.

In the RMG industry in Asia, by far the majority of workers are female (Mehra and Gammage 1999). A total of 40 million people work in the garment industry in 10 Asian developing countries and Bangladesh has the sixth-largest garment industry in terms of number of workers (ILO 2015). Moreover, where comparable data are available, trends indicate that jobs in the garment and textile industries have continued to expand, with the exception of those in Thailand. Job growth in all manufacturing was robust in India (Figure 2.1), increasing by 10.7 percent on a compounded yearly basis from 2009–2010 to 2011–2012. In China, manufacturing sector employment expanded by 8.1 percent from 2010 to 2013.

Figure 2.1: Female and male employment in garments, textiles and footwear in Asian countries, in different years.


By comparison, annual increases in manufacturing employment during the same three-year period averaged 4.6 percent in Pakistan, 3.4 percent in the Philippines and 3.1 percent in Viet
Nam. In Indonesia, however, manufacturing industry expansion in terms of employment was only 1.4 percent per annum between 2010 and 2014, with women accounting for less than 45 percent of that growth. In Bangladesh, growth is not monitored, so no data is available.

In many Asian countries young women have the opportunity to earn income by working in export processing zones (EPZs). Women are now not only responsible for their reproductive but their work has expanded to include productive work in the formal sector and they now contribute to a significant share of family incomes. In some cases, the woman’s income is crucial for the survival of the family, since most EPZ workers in South Asian countries are either the head of their households or their male counterparts have lost their jobs due to structural adjustment programs (SAPs). These women have become the breadwinners of the family, a role that was traditionally ascribed to men (Elson 1999; Fernandez Kelly 1997; Lie and Lund 1999; Wolf 1992).

However, work in the EPZs brings certain benefits for the workers, especially for female workers. Even though researchers have highlighted poverty as the main motivation for working in EPZs, research has also found that women regard EPZ jobs as a way to achieve freedom from traditional patriarchal family systems, economic and social independence, and a way of repaying their families for bringing them up in the world (Attanapola 2004; Fernandez Kelly 1997; Wolf 1992; Zhang 1999). These opportunities for employment, however, come from gender notions that employers have about their workers.

### 2.5 Preference for Female Workers in Textile Industrial Work

3 The Export Processing Zone (EPZ) is an industrial territory that engages in export manufacturing with the assistance of foreign investment and has better work conditions than are generally available in the rest of the country’s industrial sector (Amirahmadi and Wu 1995).

4 Structural Adjustment Program (SAP) was introduced for developing countries and mainly refines their loans. SAP policies helped governments of developing countries to reduce their public expenditure in order to balance national budgets, but result in a decrease in real wages and employment opportunities, and increases in prices. This outcome also raises levels of privatization, and encourages manufacturing for the export market, rather than for the domestic market (Çağatay and Özler 1995).
The participation of women in the industrial sector is increasing, especially in the textile industries in developing Asian countries. While this participation creates income for women, it also marginalizes them by devaluing their capacity in the job market (Wright 2006). Feminist scholars explain how and why female workers have become marginalized in the global industrial labour sector through gender beliefs and practices (Pearson 1992; Pyle 2002). In the 1950s through to the 1960s, industries which include heavy workloads such as shipping, mining, construction, metal, and mechanical agriculture were the main attraction for investors in economic development (Pearson 1992). These industries produced a male-based labour force, as working in these industries was considered ‘men’s work’ and the gender notion prevailed, in that working in these sectors required physical strength and intellectual ability - skills that women were not believed to possess (Pearson 1992).

On the other hand, in the 1980s, the global west started to invest in the establishment of industry in developing countries, mostly in light-manufacturing industries such as textiles, the RMG industry, jewelry, food, and electronic items (Kabeer and Mahmud 2004b). These industries recruited semi-skilled or unskilled labour, which meant that women were the preferred choice as workers. Preference for female workers was especially strong in the RMG sector because of their ‘nimble’ fingers. Furthermore, gender-specific notions underpinned the belief that women are tidier, more docile, and have more patience than men for carrying out repetitive and monotonous sewing work which in fact mirrors their domestic work (Elson and Pearson 1981).

Women’s labour participation is high in the light-manufacturing industrial sector in developing countries because many poor and uneducated women can work to earn more in this sector than in other informal sectors such as the agricultural or the domestic sectors (Lopez-Acevedo and Robertson 2012). However, the RMG factories have created a gendered division of labour, as employers prefer female workers to work in mostly low job positions. Elson and Pearson (1981) explained that female workers are preferred in this sector because they are considered to be more submissive and obedient, as well as willing to work for longer hours.
These notions of preference for female garment workers is related to gender stereotypes, meaning that women are considered passive and flexible (Elson 1999).

Further academic scholarship supports the claim that women workers are recruited in this sector because they are considered docile, willing to accept low wages and harsh work working conditions, and that they are less likely than men to join trade unions (Kabeer and Mahmud 2004a). This seems to echo the social notion of gender, that is, that women’s behaviour is socially determined through exploitation in the world of paid work, which has a cumulative effect on their health (Messing 1998, 2014).

2.6 Work-Related Health Problems

Due to economic reforms, women in developing countries are participating in formal paid work and experiencing health problems as a consequence, but these are not well documented (Dyck et al. 2001). Work-related health problems include both accidents in the workplace and disease/disabilities caused by the work situation. However, more than half of all countries cannot provide official statistics for occupational health problems. In particular, developing countries in South Asia and Africa do not have good reporting systems regarding health problems related to work (ILO 2014b). Nevertheless, these problems have repercussions for the national economy.

The International Labour Organization (2017) estimates that annually, 2.3 million fatalities occur due to occupational accidents. Globally, 2 million people suffer from work-related health problems, with approximately 1,000 people dying every day as a result of work-related diseases. In the European Commission, according to an estimate by the EC, MSDs account for the highest number of work absences (35.6 percent of all absences between 1 to 15 days) and cause incapacity for work for 39 percent of affected workers (Bevan 2015).
Another study suggests that poor ergonomic conditions cause MSDs among industrial workers, this being an emerging work-related health risk in developing countries (Shankar, Naveen Kumar, Mohankumar, and Jayaraman 2017).

Mental health problems such as depression and work-related stress are another serious source of work-related ill health in many countries (WHO 2017). Studies have provided evidence that stress due to work causes serious psychological and mental problems, and that it is grossly under-reported in developing countries (ILO 2016c). Stress has many negative health impacts and evidence from a systematic review of 27 studies in Europe, US and Japan suggests that incidence of cardiovascular disease is likely due to work stress-related strain and long working hours (Kivimäki and Kawachi 2015).

Furthermore, a number of studies have found a link between psychosocial stress and diabetes. One such study found that women developed Type II diabetes as an outcome of psychosocial work stress (Heraclides, Chandola, Witte, and Brunner 2009). Another study in Canada found that women who have a low level of job control are at increased risk of developing diabetes (Smith, Glazier, Lu, and Mustard 2012). Other authors have also found that these women, or those with a high degree of job strain are likely to develop diabetics (Agardh et al. 2003; Leynen et al. 2003; Norberg et al. 2007). Interestingly, the studies did not find significant relationships between psychosocial factors and increased risk of diabetes in men.

Research by the European Commission (2014) found that most of the costs due to occupational accidents and ill-health in developing countries are borne by workers (European Agency for Safety and Health at Work 2014). Governments and employers provide very little financial support for costs due to occupational accidents in developing countries (Ali 2008). In developed countries with universal health insurance systems, the financial cost of ill health is carried by governments (Hämäläinen, Takala, and Saarela 2006). This ill health may not
surface until many years after the person has finished working, as in the case of the asbestos industry (Walker and LaMontagne 2004). Despite these compelling patterns, in developing countries such as Bangladesh, there is little information available on the impact of occupational health and safety (the latter will be further discussed in section 2.7) on the long-term health of the population or on the economy of the country (BILS2015).

2.6.1 Health problems of female industrial workers

In general, research and policies have focused more on women’s reproductive health problems, while research on women’s occupational health and safety has been neglected (Doyal 1995; Doyal and Daykin 1999; Dyck et al. 2001; Messing 1997, 2014; Riel, Saint-Charles, and Messing 2017). Reasons for this neglect include the belief that women’s work is safer than men’s, as women are generally in less hazardous occupations (Messing and Mergler 2006; Messing and Ostlin 2006; Messing and Stellman 2006; Riel et al. 2017).

In the 1980s, studies on women’s health and safety issues began in North America, focusing, on the nursing, teaching, and poultry-farming sectors (Aiken, Clarke, Sloane, Sochalski, and Silber 2002; Messing 1998; Messing and Mergler 2006). A great number of researchers focused on women, work, and occupational cancer (Fingerhut 1994; Messing 1997; Robinson and Walker 1999; Stellman 1994; Stellman and Stellman 1995; Zahm and Blair 2003). In the past two decades, a number of researchers have studied women’s experience of sexual harassment at work (Gutek 2001; Mayhew 2003; Sprout and Yassi 1995).

It is argued here that many of these studies were methodologically ‘weak’: they captured the women’s health problems attributed to their work in the actual workplace, but did not include women’s work at home and the effects of this ‘double shift’ on their physical and mental health wellbeing (Doyal 1995; Kane and Dennerstein 1999; Messing 1997; Messing and Ostlin 2006). Women’s occupational health problems also tended to be seen through the lens of the
biological model (Doyal 1995; Messing 2014; Messing et al. 2003; Messing et al. 2014; Messing et al. 1998). These researchers emphasized that men’s and women’s occupational health problems and injuries were due to biological differences, rather than explaining them by the differences in their life and working experiences, as well as in the gender roles that they perform at home and at work (Messing 2014; Messing et al. 2014).

Since the establishment of export-processing zones with large female workforces around Asian developing countries, the amount of research on female industrial workers’ health problems has been increasing (Enloe 2015; Fontana 2009; The Global Supply Chain 2016; Thorborg 1991). Studies have identified several types of health and safety issues relating to female industrial work in Asian countries. Dust, poor ventilation, poor lighting, and noise create harmful working conditions in factories and thus cause headaches and nausea, as well as respiratory problems (ADB 2016; Clean Clothes Campaign 2012b; Clifford and Greenhouse 2013; Cook 2009; Cooke 2004; Cox and Rial-Gonzalez 2002).

In addition, poor ergonomic conditions, repetitive movements, and long hours in the same position contribute to MSDs (pain in the back, neck, shoulders, and limbs), which are another common problem among garment industrial workers, whose work demands high levels of concentration and manual skills (ILO 2017; Joseph and Kiran 2008; Singh 2016; Thorpe 2012; Van, Chaiear, Sumananont, and Kannarath 2016). There is evidence of increased reproductive health problems among female garment industrial workers, such as miscarriages (UNFPA 2014). Other health problems that arise for women in industrial work include stomach and urinary tract infections, and weakness (UNFPA 2014). Urinary tract infections are common, especially if workers are not allowed adequate toilet breaks. Studies have also found that Asian female garment factory workers suffer from malnutrition caused by low wages and long working hours (Asia Floor Wage Alliance 2016; Kunthear 2016; McMullen 2013). Industrial accidents are another hazard. Export-processing zones are regarded as ‘danger zones’ due to the risk of
industrial accidents, varying from needle-stick injuries to fingers and eyes at garment industries, to fatal fire accidents caused by unsafe working conditions (Attanapola 2004, 2005; Calvin and Joseph 2006; Ceresna-Chaturvedi 2015; The Global Supply Chain 2016).

It is commonly acknowledged that stress among workers has become a major public health problem (Hyde and Singh Chungkham 2018; WHO 2017). But while physical health issues have received significant attention in research in the field of Occupational Health and Safety (OHS), similar attention has not been paid to mental health issues, which include depression and stress (WHO 2017). Depression and anxiety disorders are common mental disorders that have an impact on people’s ability to work, and to do so productively. A report shows that stressful working conditions, which include low job control, behaviour of managerial staff, workload, and low support from supervisors affect the mental health of workers, impacting on their wellbeing (ILO 2016c).

Psychosocial hazards that may be more frequent and specific to women include: (i) the double role they have to play at home and work; (ii) social gender roles and the influence of social expectations; (iii) the risk of sexual harassment at work or domestic violence; and (iv) gender-based discrimination reflected in lower wages and higher job requirements (ILO 2012).

In most societies, women in the paid workforce continue to carry the main responsibility for unpaid domestic work, such as cooking, cleaning, and caring for children, hence incurring a double burden. Those women who have a low level of control and power over their work are more likely to be stressed and this aspect of their mental health has not been widely researched in developing countries (ILO 2016c; Kane and Dennerstein 1999; Messing and Ostlin 2006; Messing and Stellman 2006). The impact of women’s participation in waged labour on their health, of gender equality, and household relationships, intimate partner violence (IPV), and other experiences of violence, has been widely debated (Vyas and Watts 2009; WHO 1996).
Separate research has focused on violence women experience in the workplace (Hewett, Liefooghe, Visockaite, and Roongrerngsuke 2018; Mayhew and Chappell 2007).

The term ‘violence at work’ has no universally accepted definition, as the concept of violence has evolved over the past 20 years due to differences across cultures and disciplines (Barling 1996; Chappell and Di Martino 2006). In 2003, due to increasing reports of violence at work, the ILO developed a Code of Practice to address this issue, so as to ensure the health and safety of workers. The broader definition adopted by the ILO in 2003 was:

> Violence includes both physical and non-physical or psychological violence, in the form of verbal abuse, physical assault up to, and including homicide, bullying, mobbing, harassment, and mental stress. Workplace violence can be internal (within the enterprise, among managers, supervisors, and workers); but there is also external violence (between workers and intruders, as well as between staff, clients, patients, students, suppliers, and the general public) (ILO 2003).

However, this initial definition was subsequently changed due to pressure by employers (Mayhew, 2004). The amended definition of violence at work is ‘...any action, incident or behaviour that departs from reasonable conduct in which a person is assaulted, threatened, harmed, or injured in the course of, or as a direct result of, his or her work’ (Chappell and Di Martino 2006; ILO 2004). In a more recent document the ILO defined psychological violence, which also covers emotional violence, as verbal and non-verbal abuse, bullying, isolating the person, and giving impossible goals and deadlines (ILO 2016a).

Women garment workers are particularly vulnerable to abuse given that their relationship with employers is characterized by unequal power (Asia Floor Wage Alliance 2016). These women are vulnerable to sexual and physical violence, although there is variation by country and workplace (Fair Wear Foundation 2013; Tijdens et al. 2015). A multi-country study on garment factories conducted by the Fair Labour Foundation has highlighted high levels of violence. This study suggests that the Asian countries with the highest rates of violence are
India, Cambodia, Vietnam, and Bangladesh (Fair Labour Foundation 2005). Another study reports that sexual harassment in garment factories is common, at the rate of one in five garment workers experiencing sexual harassment, which creates a threatening work environment (UNFPA 2014). Forms of sexual harassment include sexual comments and advances, inappropriate touching, pinching, and bodily contact initiated by both male managers and male co-workers (Clean Clothes Campaign 2012a; HRW 2015b). Little is known about the factors that influence these acts of workplace violence towards women in the manufacturing sector.

Physical violence at work — including physical, verbal, and non-verbal harassment — directly undermines workplace safety. It is thus imperative that more evidence be gathered about potential mental health risks due to violence at work in developing countries (ILO 2016c). The ILO addressed the need for data in occupational health and safety at the Occupational Safety and Health Convention of 1981 (No. 155, in its Protocol of 2002, as well as in more than 40 standards that deal with OHS. Convention No. 155 requires each member state, in consultation with workers and employers, to formulate, implement, and periodically review a coherent national policy on occupational safety, occupational health, and the working environment. However, such data are scarce in developing countries, due to under-reporting (ILO 2016d). Work-related health problems, stress, and lack of worker wellbeing have a severely negative impact on the economy of countries, particularly developing countries (Chopra 2009).

### 2.7 The Cost of Work-Related Health Problems

Besides health-related problems, the ILO (2017) estimates that annually, around 4 percent of the world’s GDP is lost in direct and indirect costs, due to occupational accidents and work-related diseases. In the United Kingdom, the total cost associated with workplace injuries and ill
health, which does not include occupational cancers, is £ 530 million (OSH WIKI 2015). A recent systematic review found that the total estimated cost of work-related stress (WRS in European and non-European countries ranges from US$221.13 million to $187 billion (Hassard, Teoh, Visockaite, Dewe, and Cox 2018). The review further reports productivity-related losses at between 70 and 90 percent, with healthcare, and medical costs constituting the remaining 10 to 30 percent (Hassard et al. 2018). The research also suggests that a financial burden due to WRS is imposed on society, but data related to the economic cost of work-related health problems are scarce in developing countries (Hassard et al. 2018).

2.8 Conclusion

This chapter has reviewed the definitions of gender, health, and women’s health in order to broaden understanding of industrial workers’ health and safety issues. It has discussed gender discourses from modernist and post-modernist theories which have evolved over time. A conceptual framework for this research (described in Chapter Five) is used to explore the health and safety issues of female workers from modernist and postmodernist conceptualizations of gender discourses. In particular, postmodernist insights about gender focus on how medical discourse constructs health, women’s health, disease, and other social realities. In order to do this, the conceptual framework of the thesis will explore how gender is positioned in women’s lives, health and work. It will further discuss that perceptions and definitions of health, women’s health, and illness are not only biological issues but are influenced by gender, class, and the context of a particular place and society.

In short, women’s health and safety at work in developing countries have largely been ignored. This section has attempted to understand how and why women have been marginalized within the OHS discourse. Research suggests that behaviour alone cannot determine the health status of an individual. As a result, a multiple-determinants health
model has been developed which includes biology, behavioral, and environmental factors.

Using gender as an analytical tool in OHS research is a relatively recent undertaking. Most research conducted on women’s OHS suggests that in studying this issue, priority must be given to the issue of gender so as to promote the health of individuals. Accordingly, health models have evolved with holistic frameworks which emphasize not only the multiple determinants of health in general, but also the social, cultural, political, and economic factors for the health and wellbeing of women more specifically.

Globally, over the last two decades, awareness of the need to address OHS problems through a gender approach has increased among government agencies, scientists, researchers, feminists, and public health professionals. However, it is still the case that OHS discourse — especially in developing countries — ignores the particular health and safety problems of women as workers. The next chapter places women’s health and safety problems in the specific context of Bangladesh. It describes the geography, demographic information, the economy, the place of women in industry, and the rise of the export-oriented RMG industry in Bangladesh, including other emerging health problems of the country.
CHAPTER 3

Bangladesh:
Social Changes, Development, and OHS

3.1 Introduction

This chapter provides an overview of Bangladesh, which is the site of this research. In order to set the context, it will briefly describe the population, demography, and emerging health issues. It will also frame the participation of women in the labour force, including the background to the female employment and gender issues in the country. Finally, it will examine the economic growth of the country resulting from export earnings, and provide an outline of the national policy for work and health.

3.2 History, Geography, and Population

Bangladesh was formerly known as East Pakistan until 1971. Before its independence in 1947, the country was under British rule as part of the empire of India (Van Schendel 2009). In 1947, India and Pakistan emerged as two independent countries. At that time, Pakistan was geographically divided into two parts, East and West (Van Schendel 2009). The people of East Pakistan lived under economic and political oppression, and discrimination. In 1971, Bangladesh suffered nine months of liberation war and was born as an independent nation in December 1971, after the death of three million of its people (Van Schendel 2009).

Bangladesh is located in the northeastern part of South, on the Bay of Bengal; its neighbours are India and Myanmar (Van Schendel 2009). The total area of the country is
147,570 km². According to an estimate by the World Bank (2017), the country had a population of 163 million in 2016, of which 49 percent were women. The population density is one of the highest in the world, with 1161 people per square kilometer (WB 2017).

Apart from some hill areas in the Chittagong hill tracts districts (Figure 3.1), Bangladesh is located in the low-lying Ganges delta. The country is also known as the land of rivers, as it features hundreds of rivers (Van Schendel 2009). The main rivers are the Padma, Meghan, Jamuna,a and Brahmaputra. The river sediments have helped to make the land fertile. Most of the land is vulnerable to flooding during the monsoon season, causing great hardship for the rural population. The country also suffers major cyclones and tornadoes, with severe consequences for infrastructure and crops (Van Schendel 2009)

3.3 Development in the Economy, Health, Education, and Gender Inclusion

Bangladesh has achieved the status of low-middle-income country (LMIC) due to the rapid growth of the per capita gross national income (GNI) (WB 2017). GNI reached US$1080 in the 2014 financial year, crossing the middle-income country threshold of US$1046. Per capita income continued to increase, rising to US$1220 in the 2015 financial year (WB 2017). The growth in GDP also crossed the threshold for a developing country in recent years, averaging 6.2 percent since 2010, with services and industry accounting for the major growth (WB 2017). The country aspires to achieve the status of a middle-income nation by 2021, on the 50th anniversary of its independence (WB 2015, 2017).

Among the countries of South Asia, Bangladesh has made remarkable achievements in health and education. According to the Human Development Report (UNDP 2016), Bangladesh is recognized as a medium human development country, with a Human Development Index (HDI) value of 0.579 in 2015 for providing better health and education services for its citizen. In the United Nations
Development Programme (2016), Bangladesh is ranked at 139th place out of 188 countries and fifth among South Asian nations.

In 2015, the country had a life expectancy at birth of 72 years (males: 69.8; females: 75.5); and expected years of schooling of 10.2 years (mean years of schooling 5.2 years)(UNDP 2016). However, during the same period, the unemployment rate in Bangladesh was 4.4 percent, compared with 3.5 percent in India and 5.4 percent in Pakistan (UNDP 2016).

Again in the context of South Asia, Bangladesh has also made notable progress in gender equality. The exceptional achievements in gender equality are in girls’ education and in gender parity in primary and secondary enrolments reached by the early 2000s (Bangladesh Planning Commission, 2015; UNDP, 2016). The World Bank (2016) study of gender in Bangladesh highlights that the country has been successful in lowering the fertility rate per woman from 1970 to 2016, from 6.9 children to 2.3, with a population growth rate of only 1.37 percent (WB 2016). Another striking gender-related change in Bangladesh is the reduced maternal mortality ratio (MMR), which will be presented later in this chapter.

The gender gap in infant mortality has closed and overall child mortality rates have fallen rapidly, due to good immunization coverage, diarrhoea control, plus water, and sanitation facilities (Islam 2016). One of the most important changes in the last few decades has been women’s contribution to the country’s economy, particularly in the female labour force participation rate, which has increased rapidly since the 1990s and is expected to rise further in the coming years in some sectors, including the RMG industry and the public service sector (teaching and health care) (ADB 2016).

In addition, Bangladesh is experiencing rapid urban growth. According to one estimate, Bangladesh will be an urban country by 2039 because most of the rural people will move
to the cities to avoid poverty and to gain employment opportunities. The RMG industry will be one of the prominent sectors in the creation of more employment opportunities for the rural people (BGMEA 2016; NIPORT 2015). In the 1970s, 3.6 percent of people were living in cities, but more than 35 percent of the population is currently living in major cities, with 17 million people in the capital, Dhaka, which has the highest urban population in the country (NIPORT 2015; WB 2017). Dhaka slum dwellers face challenges in accessing housing, water, sanitation, electricity, and health services, especially primary healthcare clinics in slums that are not open at convenient times for working women (Afsana and Wahid 2013). Women who live in slums do not have access to ante-natal care and skilled birth attendance (Chowdhury et al. 2013).

During the last 40 years, Bangladesh has made notable improvements in most health outcomes, especially maternal mortality and child health (Islam 2016; WHO 2015). The under-five child mortality rate fell by 29 percent to 53 deaths per 1,000 live births from 2004 to 2011. Therefore, the country was able to achieve the Millennium Development Goal (MDG) 4, by reducing the under-five mortality rate by two-thirds in 2015 (WHO 2015).
3.4 Progress in Reducing Maternal Mortality

The world has made progress in reducing maternal mortality, yet 830 women die every day due to pregnancy problems (WHO 2016). Ninety-nine percent of maternal deaths take place in low-resource countries (Black, Walker, Laxminarayan, and Temmerman 2016). Bangladesh has made significant progress in reducing the maternal mortality ratio (MMR), but the most recent data suggest that the MMR remained unchanged, at 196 per 100,000 live births in 2017 (BMMS 2017; NIPORT 2016). Of the direct obstetric causes of death in Bangladesh, hypertensive disorders account for 20 percent of maternal deaths. The remainder, partly associated with post-partum hemorrhage, stands at 31 percent, with indirect causes of death at 35 percent (NIPORT 2016). Ironically, what has enabled this improvement in women’s health is the socioeconomic development of the country, which is dependent to a large extent on the work of women in the RMG factories (Chowdhury et al. 2013; El Arifeen et al. 2014). Nevertheless,
despite their increasing participation in the workforce, little is known about their work, the work environment, or about how these factors compromise women’s reproductive health (Cook 2009; Gostin 2007; Messing 2014).

3.5 Demographic Transition and the Emerging Problem of Health

Bangladesh is also addressing challenges from the double burden of communicable and non-communicable diseases (NCDs) but the country does not yet have a reliable NCD surveillance system in place (WHO 2015). According to some estimates, over 61 percent of all deaths in Bangladesh in 2014 were due to NCDs (Biswas, Pervin, Tanim, Niessen and Islam 2017). Among these, heart disease, diabetes, cancer, and chronic respiratory diseases were the top causes of death (Biswas et al. 2017; WHO 2015). Concerning the control of communicable diseases, tuberculosis remains a challenge for the country (ranked sixth worst in the world), while the reemergence of malaria, dengue fever, and Hepatitis-B is also problematic among the urban population of the country (Afsana and Wahid 2013; WHO 2015).

Bangladesh is moving fast towards becoming an industrialized economy, a change accompanied by the emergence of occupational health problems (see Chapter Four) as a concern, due to the unhealthy working conditions in some of the industries (ADB 2016). Ship-breaking, the RMG industry, and construction industries are known as the most dangerous industries in the country (WHO 2015). Among these industries the biggest in Bangladesh is the RMG industry, with 4 million people employed, of whom 80 percent are women (BGMEA 2017). It has the largest number of industrial accidents of all industries in the country (ADB 2016; HRW 2015a).
Despite the challenges of the heavy burden of health problems, GDP growth per capita is increasing, currently at 6.2 percent (WB 2017). Many factors have contributed to the annual growth in GDP, the most notable being the export income-earnings from the RMG industry (discussed in Chapter Four) and the increase in employment opportunities for women (WB 2017).

3.6 National Policy to Protect the Health of Workers

The government of Bangladesh is committed to protecting the health rights of workers through the National legislative system which covers all workers. In the Constitution of the People's Republic of Bangladesh (1972), productivity was recognized as a basic need for the economic development of the country. It also recognized that workers had the right to fair wages and medical services when they get sick or disabled due to work-related causes. As per the provisions of the Factory Act 1965 and Factory Rule 1979, all accidents and occupational diseases must be reported to the Department of Inspection under the Ministry of Labour and Employment. However in reality, under-reporting is common (ILO 2000).

It is in fact rare that accidents, injuries, occupational diseases or poisoning due to manufacturing processes are reported. This situation is attributed to the lack of awareness of workers; a lack of understanding of the seriousness of the health problems on the part of the medical personnel and management; and the lack of human and financial resources on the part of the Ministry of Labour and Employment (ILO 2000; Islam and Zahid 2012).

With all of these changes in the lives of women in Bangladesh, the health of female workers has become an issue of importance. The following section will examine national policy to protect the health of workers, with a focus on aspects that address the health of women working in industrial establishments.
3.7 Legislation Related to Occupational Health and Safety

The main laws related to occupational health and safety in manufacturing industries are the *Factory Act 1965* and the *Factory Rule 1979*, based on laws made in the British period (ILO 2000). A number of other laws and regulations that also have some provisions related to OHS issues are listed in Table 3.1 (Chowdhury 2017). These laws have provisions on occupational hygiene, occupational diseases, and industrial accidents. There are also provisions for the protection of women, children, and young persons in dangerous occupations. Furthermore, they cover work conditions such as working hours, welfare facilities, holidays, and sick leave (Rahman, Ullah and Ali 2003). However, most of these laws are outdated and are general in nature, rather than being specific to certain workplaces. And significantly, their implementation has been very poor (Ahamed 2012).

The DIFE works under the Ministry of Labour and Employment. This ministry is responsible for implementing all laws relating to the health and safety of workers (BILS 2015). The DIFE operates through four Divisional Headquarters located in the administrative divisions of Dhaka.

In terms of benefits for female workers, corporations have managed to keep their costs low (HRW 2015a). In Bangladesh, paid maternity leave is only four months, being two months before and two months after delivery. According to the 2006 labour law, during maternity leave, each woman must receive a sum which is calculated on the basis of the average daily pay she received in the three months before taking maternity leave. The average daily pay is then multiplied by the number of days on maternity leave. Based on such calculations, pregnant workers should get from US$150 to $250 on maternity leave, but for some company owners, even these small amounts are deemed too high and hence are not paid to female workers in the RMG (Rahman et al. 2003).
Table 3.1: Labor laws in Bangladesh

<table>
<thead>
<tr>
<th>Year</th>
<th>Name of the law</th>
<th>Enforcing agency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1938</td>
<td><em>The Employment of Children Act</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td>Health, hygiene, and safety of factory workers</td>
</tr>
<tr>
<td>1939</td>
<td><em>The Maternity Benefit Act</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td>Female workers’ right to not work for a specified period before and after childbirth; provision to enable them to continue receiving wages during these periods.</td>
</tr>
<tr>
<td>1961</td>
<td><em>The Minimum Wages Act</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td><em>The Factories Act</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td><em>The Employment of Labour (Standing Orders) Act</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td><em>Companies Profits (Workers Participation) Act</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td><em>The Industrial Relations Ordinance</em></td>
<td>Department of Inspection for Factories and Establishment</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from (ILO 2000; Rahman et al. 2003).

3.8 ILO Convention Regarding OHS

The ILO sets standards for OHS via its conventions, although these have no legal force unless ratified by a national government. Legislation in Bangladesh generally follows the norms of the ILO conventions (Rahman et al. 2003). The Bangladesh Government approved a new labour law in 2013 to make amendments to the 2006 Labour Act. This law is more comprehensive in addressing most of the basic rights of workers, and is more in line with the core principles of the international labour standards Act (Government of Bangladesh 2013; HRW...
The ILO conventions C155 and C161 are concerned with OHS and the Occupational Health Services respectively (Rahman et al. 2003).

The aim of the policy of convention C155 is to prevent occupational accidents, injury to health, and illnesses by identifying and minimizing the causes of hazards in the working environment (ILO 1985). The aim of convention C161 is to establish and maintain a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work (ILO 1985). Although these conventions have not yet been ratified in Bangladesh, many of their recommendations have been practiced to some extent through the implementation of various existing laws and regulations (HRW 2015a). However, yet again, none of these laws and regulations specifically addresses the health and safety issues faced by women in the RMG industry (HRW 2015a).

3.9 Conclusion

This chapter has described important economic, demographic, and epidemiological changes in Bangladesh. The country has a population of about 163 million and has recently been characterized by the World Bank as a lower-middle-income country. After independence was gained in 1971, the country was poor, with the burden of a huge population and an agrarian-based economy, as well as risks of frequent natural disasters. However, Bangladesh boasts remarkable health achievements, with recognition by the UN in 2016 that the country had made significant progress in reaching the MDG 4 and 5 by reducing child mortality, and that it was on track to achieve a reduction in maternal mortality. Other health achievements include a rising life expectancy, changes in total fertility rate, remarkable achievements in immunization coverage, improved water, and sanitation facilities, and successful diarrhea control. Bangladesh has been successful in achieving gender equity in recent years in terms of girls’ education, a decline in the total fertility rate, and a reduction in the maternal
mortality ratio. Although the country is on track to achieve a low MMR, it was still 196 per 100,000 live births in 2017, and poor, urban-slum, working women still do not have access to primary healthcare services.

The health achievements are the result of increased female literacy and access to income-generating activities for women, due to participation in industrial work. But despite these achievements, there is a general shift from the incidence of infectious diseases to that of chronic NCDs, which are reflected in changes in the causes of death, as well as changes in morbidity. These changes have significant economic, social, and health consequences at the national level.

After independence in 1971, Bangladesh had an economy based on agriculture, so was at the mercy of its frequent natural disasters. Due to the growing poverty and landlessness, more poor women became involved in paid work. However, urban population growth in Bangladesh has recently been faster than in most other South Asian countries due to mass employment of men and women in the RMG sector. Export-oriented economic growth is the main engine for job creation in the country’s urban areas. However, the adverse consequences of rapid urbanization, such as poor living conditions, and limited access to health services — especially for working pregnant women living in slums — have caused health problems to become more prominent. Hence, the country now faces new challenges due to rapid urbanization, occupational health problems, and shifts in the burden of disease from communicable to non-communicable. The next chapter describes the RMG industry in Bangladesh to set the context of this research.
CHAPTER 4

Ready-Made Garment (RMG) Industry in Bangladesh

4.1 Introduction

In Chapter Three I argued that Bangladesh was a poor country that has recently progressed to the status of a lower-middle-income country due to its economic achievements. Furthermore, I noted that this economic change was instigated by the adoption of an export-oriented economic policy. This chapter provides an overview of the RMG industry, its history, growth and contribution to the country’s economy. It will present the facts behind the choice made by rural uneducated women to become factory workers in the RMG, their position in the industry, the type of work done, plus the health and safety problems they encounter. Current challenges in addressing the health and safety problems of these female workers are also addressed, by describing industrial accidents and challenges in the RMG industry in Bangladesh.

4.2 Trade Liberalization and Development of the RMG Industry in Bangladesh

After independence in 1971, the economy of Bangladesh confronted serious challenges due to a major cyclone, famine, and political unrest. At that time jute and tea were the country’s main export-earning products. However, the export earnings from jute and tea were declining, due to world prices, while food-import costs were rising. The country started to face a foreign exchange deficit as revenue stagnated (Kabeer and Mahmud 2004a, 2004b; Kabeer et al. 2011).
In the 1980s, Bangladesh adopted trade liberalization policies which emphasized reducing import and export taxes, promoting private foreign investment, strengthening export sectors, and devaluing the currency (Manni and Afzal 2012; Rahman 1992). In the same period, the country adopted an open-market liberalization policy by privatizing government industries; removing market regulations, subsidies, and guaranteed prices; ensuring minimum wage legislation; reducing state intervention; and reducing government spending, especially on health, education, and other welfare (Ahmed, Haggblade and Chowdhury 2000).

The development of the export-oriented RMG industry in Bangladesh can be explained by the change of policy at both global and national levels. At the global level, the Multi-Fiber Agreement (MFA) imposed a quota on clothing exports from industrializing countries such as Korea or Taiwan, to developed countries (the largest RMG importers, USA, and Canada) (Kabeer and Mahmud 2004b; Yunus and Yamagata 2012). Under this agreement, East Asian countries such as Korea, Hong Kong, Malaysia, and China started to search for quota-free locations to set up garment manufacturing plants (Rashid 2006). So at that time, Bangladesh became a promising place to invest, due to its unused quota and the availability of cheap labour (Kabeer and Mahmud 2004a).

In 1976 the Korean company Daewoo first signed a contract with a local garment manufacturer in Bangladesh called Desh (Kabeer and Mahmud 2004b). As Bangladesh was a new actor in this sector, Daewoo provided free training in two sectors: production and marketing, so as to develop human resources (Ahamed 2012). A total of 130 supervisors and managers from the state-of-the-art garment plant in Korea were trained (Ahamed 2012; Ahmed 2004). Of these original 130, 115 either left the Desh garment factory to set up their own factory, or joined other newly established factories to earn a higher salary (Ahamed 2012; Kabeer and and Mahmud 2004b).
In the early 1980s, with the guidance of the IMF and the World Bank, Bangladesh undertook a series of initiatives to reform its export policy (Kabeer and Mahmud 2004b). The main policy reform was to develop export-led growth, creating opportunities for the private sector to invest in export-oriented products and attracting foreign direct investment (Ahmed et al. 2014; Bhattacharya 1998). So as to attract foreign direct investment, Export Processing Zones (EPZs) were established outside Dhaka and Chittagong (Rashid, 2006). These initiatives stimulated foreign and local private investment in the RMG industry, which dramatically expanded the export-oriented RMG sector (Bhattacharya 1998). Since that time, the industry has become the backbone of the Bangladesh economy (Kabeer and Mahmud 2004b).

4.3 The Contribution of the RMG Industry to Bangladesh’s Economy and Employment

The economy of contemporary Bangladesh is marked by the sustained growth of the RMG sector. In fact, the country’s reserves of foreign currency now depend on this sector (WB 2016). The total value of export earnings from the RMG industry has increased dramatically over time. In the 1990s, the export earnings from the RMG industry were US$ 2547.13 million, increasing to over US$25.49 billion in the 2014-2016 financial years (BGMEA 2016). As Table 4.1 shows, its total share of export earnings increased from 65.61 percent in the 1980s to 80 percent in 2016 (BGMEA 2016; Caleca 2014). Table 4.2 shows the RMG export earnings by destination country. The greatest importer (US$5624.92 million or 30.48 percent of total export earnings) was the US, followed by Germany, UK, and France. This growing industry has provided employment opportunities for many people from rural areas throughout the nation, especially for unskilled female labourers (Kabeer 2014). According to one estimate, 4 million people are working in this industry and 80 percent of them are women (BGMEA 2016).
### Table 4.1: Export income and contribution of RMG

<table>
<thead>
<tr>
<th>Financial Years</th>
<th>Total Export of BD (USD millions)</th>
<th>RMG Exports (USD millions)</th>
<th>% of Total Earnings (Total Exports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2005</td>
<td>6467.3</td>
<td>6417.67</td>
<td>75.14</td>
</tr>
<tr>
<td>2005-2010</td>
<td>16204.65</td>
<td>12496.72</td>
<td>77.12</td>
</tr>
<tr>
<td>2010-2015</td>
<td>31208.94</td>
<td>25491.4</td>
<td>81.68</td>
</tr>
<tr>
<td>2015-2016</td>
<td>16204.65</td>
<td>12496.72</td>
<td>77.12</td>
</tr>
</tbody>
</table>

*Source: Bangladesh Export Promotion Bureau (BEPB 2017).*

### Table 4.2: Value of exports by destination (USD millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>USA</th>
<th>Germany</th>
<th>UK</th>
<th>France</th>
<th>Italy</th>
<th>N’lands.</th>
<th>Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2010</td>
<td>3628.05</td>
<td>2000.08</td>
<td>1260.03</td>
<td>952.92</td>
<td>540.38</td>
<td>917.36</td>
<td>595.55</td>
<td>9894.37</td>
</tr>
<tr>
<td>2010-2015</td>
<td>5288.12</td>
<td>4338.76</td>
<td>2903.57</td>
<td>1617.51</td>
<td>1243.33</td>
<td>626.58</td>
<td>928.76</td>
<td>16946.63</td>
</tr>
<tr>
<td>2015-2016</td>
<td>5624.92</td>
<td>4653.13</td>
<td>3523.78</td>
<td>1714.31</td>
<td>1278.07</td>
<td>659.55</td>
<td>998.44</td>
<td>18452.20</td>
</tr>
</tbody>
</table>

*Source: Bangladesh Export Promotion Bureau (BEPB 2017).*

### 4.4 Women’s Changing Gender Roles and Employment in the RMG Industry

According to the Bangladesh Labor Force Survey 2015-2016 (LFS), 58.5 percent of the population over 15 years of age are employed or self-employed (including in agriculture), with 41.5 percent not in paid employment (BBS 2017). This survey estimates that 81.9 percent of working-age men and 35.6 percent of working-age women are in paid employment or self-employed.
The largest segment of the workforce is employed in the agricultural sector (42.7 percent) and the second-largest sector is manufacturing, where 14.4 percent of the workforce is working, including most of the women in paid employment.

Research on Bangladeshi women has shown that the primary responsibility of women in Bangladesh is to do household work, as social gender roles, and religion have traditionally been important influences in determining the work of women in Bangladesh (Kabeer 1991a, 1991b). They are responsible for taking care of their children, husband and elderly members of the household (Kabeer 1991a). Traditionally, women were expected to stay at home, and the concept of *Purdah* has further restricted the mobility of women outside the home (Feldman 2001; Feldman and McCarthy 1984; Kabeer and Mahmud 2004a). The cultural expectations and religious beliefs mandated men as the breadwinners in Bangladesh. Men are responsible for providing all financial support to women, and the economic role of women has been considered as secondary (Kabeer and Mahmud 2004a).

In the 1970s, after the liberation war, the economy of Bangladesh was characterized by poverty, landlessness, and dependence on foreign aid (Feldman 2001; Feldman and McCarthy 1984). Poverty and landlessness also resulted in male migration to the cities for employment.

Despite the gender norms that confined women to the home, this pattern of male migration meant that the number of female-headed households increased among landless families and the presence of women in paid work was seen from the early 1970s in rice mills in the southern part of Bangladesh, due to the shortage of male labourers (Feldman and McCarthy 1984). According to Feldman and McCarthy (1984), the poorest of the poor women took part in paid work. Due to growing poverty and landlessness, foreign-aid donors started

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5 The meaning of *Purdah* is veil. It is a system that separates the worlds of men and women. *Purdah* determines that women’s world is the private sphere of the home and men’s world is the public sphere outside of the home (Feldman 2001, 2013).
programs of food for work targeting poor women. These programs involved women as workers in road construction, brick-breaking, and other construction work.

As part of other development work, foreign-aid donors also supported population control programs in Bangladesh, which created jobs for middle-class rural women in the government and semi-government sectors, while teaching emerged as a respectable job among educated middle-class women in the public sector (Feldman and McCarthy 1984; Kabeer 1991a). Donor programs created labouring jobs for poor women, whereas middle-class women participated mostly in government jobs (Feldman 2001).

Although women have been entering paid work mainly in the informal economy sector since the 1970s, the participation of females in paid work increased remarkably from 1983 to 2000 (ADB 2016), with the rapid development of the RMG industry in the same period. In the early 1980s, the number of garment factories was around 50, with only a few thousand workers (Kabeer and Mahmud 2004b). However, according to an estimate in 2010, the number of factories rose to more than 3000, with 3.5 million workers (Rahman and Islam 2013). Table 4.3 presents data from 1990 to 2000, showing the increase in employment in the RMG industry. The growth in employment was high in the 1990s and doubled from 2005 to 2010 (Rahman and Islam 2013). In 2017, 4.5 million people were working in the RMG industry, 3.2 million (80 percent) of whom are women (ADB 2016; BGMEA 2017).

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of workers (millions)</th>
<th>No. of factories</th>
</tr>
</thead>
<tbody>
<tr>
<td>200005</td>
<td>2</td>
<td>4107</td>
</tr>
<tr>
<td>200510</td>
<td>3.6</td>
<td>5063</td>
</tr>
<tr>
<td>201015</td>
<td>4</td>
<td>4296</td>
</tr>
<tr>
<td>201416</td>
<td>4.5</td>
<td>5000</td>
</tr>
</tbody>
</table>

The rise of the garment industry created opportunities for poor women with no or limited education to participate in wage-paying work (BGMEA 2017). The majority of the women in the RMG industry migrated to the city from poverty-stricken districts of Bangladesh (Absar 2002; Kabeer and Mahmud 2004a). Females are given priority for employment in this sector as it is believed that they are docile, easy to control and less likely to participate in a union (Kabeer and Mahmud 2004a).

As previously mentioned that Kabeer (2013) highlights the role of such social factors in the female labour market. Although the paper does not directly deal with factors affecting female employment, it states that women’s participation in the labour market is often not their own decision. As a result of strong patriarchy in Bangladesh society, the male members of the family usually dictate or guide such a decision. Society’s attitude and established norms also set constraints on such decisions (Kabeer 2014).

Some studies have also found that women are recruited because they accept lower wages and are more agreeable to doing overtime without extra pay (Ward, Rahman, Islam, Akhter, and Kamal 2004). Mention has already been made of another study revealing that women are given priority because of their nimble fingers, which are suitable for sewing work (Elson and Pearson 1981). Thus, women in the RMG seem to be vulnerable to exploitation by employers because of traditional gender views that see women as more obedient, manageable, and loyal (Afsar 2002).

### 4.5 Impact of Earning on Women’s Lives

Despite being vulnerable to exploitation in this industry, a study in the 1990s found that employment opportunities in the export-oriented garment industry created earnings for poor female workers (Zohir and Paul 1996). They sent to their families a large proportion of their
earnings (46 percent), without which the families would fall below the poverty level (Zohir and Paul 1996). Other research in Bangladesh has found that through employment opportunities, for example in the RMG industry, women have become more empowered in Bangladesh (Kabeer et al. 2011; Nazneen et al. 2011; Schuler, Hashemi, Riley and Akhter 1996). Moreover, for families, the income of the female garment workers increases their family’s economic position and household consumption of food, and helps them invest more in their children’s primary education (Bhattacharya, Moazzem and Rahman 2008; Heath and Mobarak 2012; Islam and Zahid 2012).

Some studies have found that working in the RMG industry increases women’s independence and bargaining power in household decision-making (Khosla 2009; Paul-Majumder and Zohir 1995; Paul-Majumder and Zohir 1994). Another study reported that women have gained better control over economic resources (Kibria 1995). Several studies found that garment work not only makes women economically independent and empowered, but that they sometimes become the main breadwinners for their families, with greater control over their income (Kabeer 1997, 2004, 2013; Kabeer et al. 2011).

Other studies reported that participation in paid work in the RMG sector has helped to delay marriage and reduces fertility rates in Bangladesh (Heath and Mobarak 2015; Naved, Newby and Amin 2001). These studies examined the bargaining power and income earning of the factory workers in Bangladesh, finding that overall, participation in paid work increases the autonomy of female garment workers in Bangladesh (Akterujjaman and Ahmad 2014; Dey and Basak 2017; Murayama and Yokota 2009; Mustafa, Islam, Islam and Khatun 2016).

4.6 Structure of the RMG Industry and Work Arrangements

The RMG sector in Bangladesh consists of the woven and knitwear industry (Yunus 2010). Knitwear manufacturing involves heavier machinery and higher technology, whereas
woven-wear manufacturing demands less strength and less technological skill. Unsurprisingly, woven-wear manufacturing is where most women are employed in Bangladesh (Kabeer and Mahmud 2004b).

Important research has also been conducted in Bangladesh, focusing on the preference to recruit female workers due to the feminization of the garment industry. A critical discussion has emerged about the feminization of labour and this has provided useful information on Bangladeshi factory women. The term ‘feminization of labour’ (as) refers to the mass entry of women into manufacturing (Elson 1999; Elson and Pearson 1981; Hossain 2012; Kabeer 2004; Krugman 1997).

Although the majority of the RMG workforce is women, they work in the lower positions. Zohir and Paul (1996) report that most of the women are employed as sewing operators and helpers. Female workers mainly perform sewing, packing, inserting buttons, making holes for buttons, checking, cleaning threads, and ironing (Figure 4.1). All of these tasks are labour-intensive and repetitive (Kabeer 1991a, 1991b; Zohir and Paul 1996). In contrast, men are recruited for mid-level administrative and management positions such as persons in charge of the floor, supervisors, quality controllers, and cutting masters – positions rarely given to women with higher salaries (Kabeer 1991a; Siddiqi 2003; Souplet-Wilson 2014; WB 2008).
4.7 Working Conditions, Wages, Health and Safety Issues in the RMG Industry

Since the 1980s when the RMG industry started to grow in Bangladesh, the labour, working conditions, health and safety, and economic empowerment of female workers have become study themes in Bangladesh as this industry contributes to the economy of the country and increases women’s labour participation. Of these, the relevant research themes for this thesis are health and safety issues, the work environment, the economic impact on women’s lives, and stress and violence in the workplace. A content analysis was done by
reading each of the articles, the key findings of which are provided in Appendix I. The process of the literature review is described in Chapter Five.

4.7.1 Health and safety issues

Several quantitative studies of the garment industry in Bangladesh using a database were conducted by Paul-Majumder and her colleagues in the 1990s, to better characterize the health status of female workers (Paul-Majumder 1996; Paul-Majumder and Begum 2000; Paul-Majumder and Zohir 1994). The author continued her research into female workers’ health status in the garment industry, finding that various health problems, including continuous headaches, burning eyes, dizziness, vomiting, and MSDs due to repetitive and monotonous work, jaundice, stomach upset, urinary tract infections, and swelling of legs are prevalent among this cohort (Paul-Majumder 1996; Paul-Majumder and Begum 2000).

Another study by Absar (2003) focused on the reproductive health issues of female garment workers and identified health problems associated with abortion. Other complaints reported by the study participants included back pain, eye strain, gastric upsets, fever, and helminthiasis.

According to a report by the ILO, the working environment has improved and an accord has been made by the government of Bangladesh to minimize the risk of future fatal factory fires and building collapses (About the Accord 2014a). However, this agreement has done little to address the issue of violence towards the female workforce, who are the backbone of the industry (HRW 2015a).

The prevalence of violence against women is high in Bangladesh, although accurate national data is not available (Bhuiya, Sharmin and Hanifi 2003). Violence occurs both at home and outside of the home, the latter of which is less explored in Bangladesh (Schuler et al. 1996). Violence against women is deeply rooted in the culture in the name of religion (Wiegand 2015;
Zaman 1999). It is an obstacle to the development of women and a threat to their health and wellbeing (Johnson, Ollus and Nevala 2007; Venis and Horton 2002; Young 2000).

Violence at work against female workers in the RMG industry is a multi-dimensional issue, and prevention requires an understanding of the root causes, including gender norms, professional ethics, and the nature of work, and working environments (HRW 2015a). Only very few studies have been conducted into women’s health and safety issues in the RMG industry in Bangladesh (HRW 2015a). A study conducted by Fair Labour Foundation (2005) on Asian garment factories reported that Bangladeshi female factory workers face higher levels of violence compared to other Asian countries, including China.

4.7.2 Working environment and employment conditions

From the end of the 1990s to 2012, research into the garment industry focused more on working conditions. Most of these studies have portrayed the exploitative and oppressive nature of garment factory work for both men and women. Some researchers have concentrated mainly on labour rights, standards, and fair labour practices. Women employed in this industry are exploited by their employers in terms of low wages and low bargaining power (Paul-Majumder and Begum 2000). Even if the women are doing the same work as men, studies indicate that female workers earn less (Ahamed 2012, 2014; Hossan, Sarker and Afroze 2012; Paul-Majumder and Begum 2000). Other research reported that garment factory workers work long hours (average 12–14 hours per day) in poor working conditions (Absar 2002, 2003, 2009; Jamaly and Wickramanayake 1996; Mahmud and Kabeer 2003).

Further, Absar (2002, 2003) found that the recruitment policy is very informal and most workers do not receive formal appointment letters and contracts. Consequently, they are vulnerable to losing their jobs at any time and, because of the lack of alternative job opportunities, they are forced to work in these poor situations. There is no regular weekly day
off, gratuity or provident fund for these workers. There are no rewards for hard work, no training facilities, and they rarely receive any compensation for any accidents during working hours (Paul-Majumder 1996, Paul-Majumder and Begum 1997, 2000). Khan and Wichterich (2015) also argue that very little is known about how these women manage their life at home and work.

Some studies have examined wage rates, highlighting the fact that they are low in the RMG industry (Ahamed 2014; Ahmed and Nathan 2014; Islam and Zahid 2012). Although wage revisions occurred in 2006, 2010 and 2013 due to unrest and agitation, the overall levels are still low, especially in relation to the cost of living in urban areas in the country (Ahmed and Nathan 2014; Moazzem and Islam 2015).

Maternity leave is a basic human right of female garment workers in Bangladesh. According to the Bangladesh Maternity Benefit Act (1939), all working women are eligible to have 12 weeks’ paid maternity leave (Chowdhury and Ullah 2010; Islam and Zahid 2012). However, not all garment factories provide paid maternity leave to their workers (HRW 2015a). Studies report that only a few garment factories offer this leave to their female workers. Of the factories that do, some grant leave for 8 weeks or less, some approve 12 weeks’ paid leave, and only a few factories grant paid leave according to the law (Akhter 2014; Chowdhury and Ullah 2010; Muhammad 2011).

4.7.3 Fire incidents, building collapses, and OHS services

According to a labor-force survey (2015–2016), annually 2.2 million persons experience an injury or illness from a work-related accident, that is, 2.0 million males and 206,000 females (BBS 2017). In urban areas, the rate of injured women (52.5 percent) is higher than that of males (29.2 percent).
The highest number of work-related injuries occurred in the industrial sector (5.9 percent), followed by the service sector (3.7 percent), and the agricultural sector (2.7 percent) (BBS 2017).

Bangladesh has received significant attention from the global community for its long and frequent history of health and safety tragedies in the garment industry (Souplet-Wilson, 2014). Garment factory fires and collapses have killed at least 1,800 workers since 2005, with the majority being women (Alam, Blanch and Smith 2011). According to a report by the Bangladesh Institute of Labour Studies (BILS 2015), there is no data on occupational diseases, injuries, and accidents in Bangladesh; instead, data about the deaths and injuries each year is mainly collected from newspaper reports. Table 4.4 provides a summary of the number of deaths and injuries in RMG factories in Bangladesh during the period 2010 to 2013. In 2012, the fire in the Tazreen Fashion factory killed 112 workers and injured at least 200, again with most being women (Bajaj 2012). In April 2013, the collapse of the nine-story building, Rana Plaza, in Bangladesh caused 1132 deaths and injured more than 2500 workers, by far the majority women (Clifford and Greenhouse 2013; Souplet-Wilson 2014).

In 1994, the WHO proposed a global strategy on occupational health for all (WHO 1995b). It has 10 objectives: Developing international and national policy; Creating a healthy working environment, healthy work practices and promotions; Strengthening occupational health and safety (OHS) services; Developing support services for OHS and OHS standards based on risk assessment; Development of human resources; Establishment of registration and data systems; Development of information services of data and raising awareness about OHS through sharing information; Conducting research; and finally, Developing collaboration (WHO 1995b). Another report specifies the most important points: strengthening the essential infrastructure, increasing occupational health and support services for all workers, and building capacity to develop human resources to provide the necessary OHS services to workers (WHO 2007). Two major incidents, the Tazreen Fire and the Rana Plaza building
collapse, raise questions about the capacity of the OHS system service, as a result of which the government of Bangladesh was being pressured to ensure safe and acceptable working conditions in the RMG sector in line with WHO’s global strategy on OHS (ILO 2014b).

Table 4.4: Number of major industrial incidents in the RMG sector

<table>
<thead>
<tr>
<th>Major fire incidents</th>
<th>Year of incident</th>
<th>No. of deaths</th>
<th>No. of injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory building collapse</td>
<td>2013</td>
<td>1136</td>
<td>2500</td>
</tr>
<tr>
<td>Fire at Tazreen Fashions</td>
<td>2012</td>
<td>120</td>
<td>200</td>
</tr>
<tr>
<td>Fire at Garib and Garib</td>
<td>2010</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>Fire at Hameem Group</td>
<td>2010</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

4.8 Conclusion

In the last four decades, Bangladesh has emerged as the world’s second-largest garment exporter among low-income countries. The MFA, which imposed quotas for textiles and exports from the RMG sector from developing countries to developed countries, helped to develop this sector in Bangladesh. It is now the major source of foreign exchange for the country. This chapter also showed the increase in women’s participation in paid work in RMG, from a few thousand women in the 1990s to more than four million in this industry in Bangladesh today.

This chapter has also argued that women’s participation in paid work has triggered a remarkable change in various aspects of gender relations in Bangladesh. Previous studies conducted with female garment workers found that despite the hardship caused by the working conditions in this industry, women have become more economically independent and empowered. Indeed, women have become the ‘breadwinners’ and ‘decision-makers’ in many families and now have some control over their income.

This chapter has highlighted the fact that studies on the impact of women’s experiences of health and safety issues have focused on the working conditions in the RMG factories and
found that the working environment is exploitative in nature. Women need to work for long hours, their work is physically demanding, and their workplace is fraught with physical, sexual, and verbal harassment. Moreover, these women work in unsafe conditions which put them at risk of fire and building collapse.

A number of studies have concluded that female industrial workers suffer injuries, pain, and fatigue. Some found neck, back, and shoulder pain experienced by female garment workers, as well as urinary tract infections, eye problems, and weakness. A further number of studies found that few female garments workers can work in this sector for more than five years.

These studies also contend that despite phenomenal growth, this industry has experienced major industrial incidents with 112 deaths in 2012, and a few months later, 1,129 deaths of garment workers — mainly women — as well as injuries to thousands more.

Most of these studies conducted in Bangladesh employ quantitative methodologies, hence do not provide information on how workers and owners perceive their health and safety problems. This chapter has demonstrated that the RMG industry requires an urgent need for OHS service improvement. Although this type of evidence is lacking in Bangladesh, an insightful ethnographic narrative of the work environment and its impact on the health of female workers is absent in these studies. This research will further explore health and safety in the RMG sector, adopting a qualitative research method. The next chapter will describe the research methodology employed, beginning by presenting the conceptual framework with aims of the research, primary and focus research questions, followed by an overview of the study design, data collection procedures, analysis, and the issues of study rigour and ethics.
PART II
CHAPTER 5

Research Methodology

5.1 Introduction

This chapter outlines the conceptual framework for this research project, describes the aims, the research and focus questions (FQ) to be examined, and details the study design, setting and population, data collection and analysis methods. The chapter also describes the research ethics and related reliability and validity issues considered during the study design and implementation.

5.2 Conceptual Framework

The conceptual framework for this research is portrayed in Figure 5.1. The conceptual framework is a method which helps the researcher to recognize patterns and relationships between themes in order to achieve the research aim (Morse 2004; Padgett 2011). Working conditions and gender play an important role in determining the health and safety of women (Attanapola 2004; Doyal 1995; Jones and Moon 1993; Macintyre, Ellaway and Cummins 2002; Paolisso and Leslie 1995).
Further, there are multiple determinants of health, which include biological factors, human behaviour, and the environment at work and home (Doyal 1995; Dyck et al. 2001; Marmot and Bell 2012). The underpinning purpose of this research is to explore how and why work and gender roles affect the health of female workers. It attempts to understand female workers’ health problems through their everyday work and life experiences, which include their work at the workplace and at home.
5.3 Aims and Research Questions

Aims of this research

This research aims to more comprehensively understand the health and safety issues encountered by women who work in the garment industry in Bangladesh, in order to make recommendations that would assist the design of appropriate intervention, strategies, and policy in order to improve the working environment and thereby address the health and safety problems faced by female workers.

Primary research question

What are the health and safety issues for women who work in the RMG industry in Bangladesh?

Focus questions

The research question is addressed through answering the five focus questions below:

1. **What are the issues that impact on women’s health and safety and how are they influenced by gender?**

   It is important to answer this question, as it provides the theoretical and empirical background to the determinants of health in the workplace. It will also provide an analysis of the role of gender in women’s health. This analysis will largely be based on a review of both published and unpublished literature.

2. **What are the work environment and conditions for women employed in the RMG industry in Dhaka district?**

   The focal informants for this question will be the female workers. The research will explore their working conditions, and the relationships, behaviour and attitudes of their supervisors. It examines how these variables influence the health and safety of the women, including the vulnerable group of pregnant workers. The perspectives on gender roles at home and the expectations of their family members will be explored. The living conditions, management of children when their mothers’ are at work, benefits of
earnings from work, length of employment in the industry, and how they manage their work at home and at the workplace will also be investigated.

3. **What are the key OHS service-related challenges encountered by the key stakeholders in the RMG industry?**

The focal informants relevant to this research question will be employers, factory doctors, government officials, and representatives from the BGMEA, in order to explore their views. The roles of government, industry owners, and the BGMEA, who are working to improve the working conditions for this industry for women, will be examined through this analysis. It will explore the challenges faced by the different stakeholders, as well as strategies to overcome the OHS system-related challenges.

4. **What are the health and safety issues encountered by women who work in the RMG industry in Dhaka district?**

The focal informants in this research question will be the female industrial workers, their supervisors, factory doctors and government officials, representatives from the BGMEA, so as to explore the lived experiences of female industrial workers, and their physical and mental health issues, ultimately revealing their perspective on these issues. The analysis will further explore the health care practices and coping mechanisms to manage their health and work together. It will explore how the different stakeholders perceive and respond to the problems of the women.

5.4 **Study Design, Site, and Population**

**Study design**

The design of a study depends on the nature of the research questions (Creswell 2012; Denzin and Lincoln 2009; Marshall and Rossman 2014; Miles and Huberman 1994). This research aims to capture the voices of women who are working in the RMG industry in Bangladesh, relevant to their everyday experiences at home and in the workplace, and how these issues influence their health, safety, and mental wellbeing. The study also aims to capture the perceptions of employers, government officials, and health care providers about the health status of female
workers in the RMG sector in Bangladesh. Consequently, a qualitative research design was used for this study, as qualitative research can develop a complex and holistic picture of a phenomenon in its natural setting. Qualitative research is a multi-method type of research. It interprets phenomena through naturalistic approaches such as interviews, observations and focus-group discussions (Creswell 2012; Denzin and Lincoln 2009; Marshall and Rossman 2014; Miles and Huberman 1994).

**Study site**

The study was conducted in the cities of Mirpur and Savar, located in the Dhaka district. In 2016, the population of the greater Dhaka district was estimated at 18.237 million (Dhaka Population 2017). These cities were chosen because manufacturing is one of the major economic sectors in these areas and most of the RMG factories are established there because the infrastructure is favourable to foreign investors (Textile Today 2016). A large proportion (25 percent) of the Dhaka population work in the garment industry, living in slums with very limited infrastructure (Hoque, Debnath, and Mahmud 2006; Textile Today 2016). Four factories (two from each city) were chosen as the setting for this research. The four sample factories were chosen on the basis of their export orientation (and hence have compliance conditions imposed by the Bangladesh Government) rather than on any prior knowledge by the researcher, as well as on the willingness of factory management to participate (Islam and McPhail 2011). Data collection occurred from December 2015 to July 2016. To maintain the privacy and anonymity of the sample factories, they are referred to as factory A, B, C, and D in this thesis. Factories A and B are in Mirpur and Factories C and D are in Savar. **Table 5.1** provides the numbers of workers in the sampled factories.

---

6 Compliance factories must have alternative stairs, fire-exit doors, and basic fire equipment. Children under 15 years old cannot be employed. Employers must not be forced to work. There must be an approved building construction layout plan to ensure safety, sanitation facilities, first-aid boxes, and minimum wages for the workers. The factories must not discriminate against a worker because of any vulnerable physical or mental condition and workers have the right of freedom of association (Rahman and Hossain 2010).
Table 5.1: Workforce numbers in the four sample factories

<table>
<thead>
<tr>
<th>Factory</th>
<th>Type of factory</th>
<th>Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Woven factory</td>
<td>3000</td>
</tr>
<tr>
<td>B</td>
<td>Woven factory</td>
<td>4000</td>
</tr>
<tr>
<td>C</td>
<td>Woven factory</td>
<td>5000</td>
</tr>
<tr>
<td>D</td>
<td>Woven factory</td>
<td>3500</td>
</tr>
</tbody>
</table>

Sampling and study population

According to Patton (2005), purposeful sampling is a technique commonly used in qualitative research to identify and select informants who are able to provide rich information from a limited number of resources. Miles and Huberman (1994) and Curtis, Gesler, Smith, and Washburn (2000) provide six criteria for selecting purposive samples in qualitative research. Importantly, the sampling strategy should have relevance to the research questions. This process of sampling involves identifying and selecting individuals or groups that have knowledge and experience of the research topic (Creswell 2012). In addition to knowledge and experience, Pelto and Pelto (1978) and Patton (2005) explain that the researcher needs to select and identify study participants so that the selected informants are available and willing to participate in the study. This enhances good communication between the researcher and the study participants, and enables the participants to express their opinions about the study topic in an articulate, expressive and reflective manner. This process was followed in this research.

The guidelines for calculation of sample sizes for qualitative research are not as strictly codified as they are for hypothesis-testing research, where power calculations based on a priori knowledge of distribution and variability of key dependent variables are essential (Agar 1986).

7 Woven factories produce shirts, pants, and trousers (Mansur 2014) (A description is presented in Chapter Four).
However, decades of research, including research using cultural domain analysis, provide some general recommendations. In relatively homogeneous populations (e.g. with shared religious, and ethnic affiliations), samples of 25–30 are sufficient to identify and describe the research topic (Agar 1986; Pelto and Pelto 1978). In qualitative research it has been found that ‘saturation’ occurs at between 20 and 25 respondents (Pelto and Pelto 1978). In qualitative research, the term ‘saturation’ refers to the point at which further interviews reveal few, if any, new insights (Ritchie and Spencer 2002). Thus, this study follows the process of working towards data saturation.

A total of 20 female workers were recruited for in-depth interviews (IDIs), including six pregnant women working in the selected RMG factories, and 14 key informant interviewees (KII) who were knowledgeable about the study topic and working environment in garment industries in the greater Dhaka region. All female workers had a minimum of one year’s work experience in the factory. Workers were contacted through a local NGO in the study area and invited to participate in this study. Primary data was collected by conducting in-depth interviews, key informant interviews, observations, and focus group discussions. The key informant interviews provided institutional perspectives on female workers’ health and safety issues. Qualitative data was collected following a selection of data collection techniques, and secondary data was collected through literature and document reviews.
5.5 Data Collection

5.5.1 Literature review

As part of the data collection, an extensive literature review was carried. It provides the current state of the research problem globally and nationally as background to identify the research gap (which includes known and unknown issues). The purposes of the literature review are to describe the global history of the problem, to identify the best examples from other countries of what has been done about the problem, and to identify the strengths, weaknesses, and limitations of previous studies. In this research, a document review helped to answer FQ 1. The literature review helped in the understanding of how women’s health and safety issues have evolved globally. It also reviewed the barriers and challenges to implementing policies in the context of developing countries. An extensive search was conducted to collect electronic articles and documents, both peer-reviewed journal articles and grey literature.

The literature search was done using electronic databases such as Google Scholar and Web of Science. Documents were collected from international organizations’ websites: the International Labour Organization (ILO), the United Nations Development Program (UNDP), the World Health Organization (WHO), and the World Bank (WB). The policy, legislation, and practices related to occupational health and safety issues globally were reviewed. Some policy documents and annual reports were also collected from the Ministry of Labour and Employment of Bangladesh and the office of the Bangladesh Garments Manufacturers and Exporters Association (BGMEA). These documents sometimes also include the economic performance of the RMG industry, labour law, and compliance issues.

A systematic search of peer-reviewed articles was conducted via PubMed, Scopus, Web of Sciences, and Google Scholar. Further, manual searching of bibliographies from
a range of identified articles was conducted so as to gather both quantitative and qualitative studies on women’s health, work, gender, safety at work, RMG, stress, OHS systems, and occupational health, using various combinations of search terms.

These studies analysed and discussed factors influencing the health and safety at work among the general population. There was no limitation on the date of publication, but the review included only articles in English and studies conducted mostly in developing countries. Grey literature was excluded here, as it generally includes factors similar to those considered in the reviewed articles. Furthermore, any evaluation of program outcomes was excluded, as it is not relevant for this review.

5.5.2 In-depth interviews

In-depth interviewing (IDI) is an interactive process that involves a face-to-face conversation between the researcher and the study participant that seeks to generate detailed data, in order to deeply understand how participants view their world (Patton 2005). Patton (2005) identifies three types of interview: the informal conversational interview, the standardized open-ended interview, and the guided interview. This study followed the standardized open-ended interview style, including life stories. The life stories provide information about individual perceptions of life, changes, and how the individual copes in a society (Acharya and Lund 2002; Lie 2000).

The main focus of standardized open-ended interviews is to elicit the participant’s views through their own eyes (Patton 2005; Pelto and Pelto 1978). The interviewees were the female industrial workers. However, the garment industry involves many actors. In addition to the female factory workers, it involves the employers, representatives from the BGMEA\(^8\), factory

\[^8\] The Bangladesh Garment Manufacturers and Exporters Association (BGMEA) is a trade association that was established in 1983. It is run by a 35-member elected Board of Directors. This association works as a representative mainly for the woven,
health care providers and government officials from the Ministry of Labour and Employment (MOLE). The key informants included supervisors of the female workers (n=4), 2 production managers from different factories, 1 line supervisor and 1 in charge of a floor), doctors in the garment factories (n=4, 1 from each factory), government officials from the MOLE (n=3), and non-government officials, particularly staff of the BGMEA (n=3). KIIIs provided a detailed understanding of the employers’ and health care providers’ views about working women’s experiences. By utilizing two groups of informants, it was possible to compare and contrast data from different stakeholder perspectives.

Separate interview checklists were used for the IDIs and for the KIIIs. The interviews were conducted in Bengali, because this is the native language of the study participants and the researcher. Very simple language was used with all study participants, so that they could easily understand questions and offer meaningful responses. The intention was to eliminate any ambiguities in the questions and to make sure that questions provided to them had clear meanings and were easily answerable (Creswell 2012).

Open-ended topic guides were developed in English and translated into Bengali. Before data collection, the interview guides were pre-tested and adapted according to the findings of the field testing. Open-ended interview guidelines (see Appendices V–VII) evolved during data collection in the field (Creswell, Hanson, Clark Plano and Morales 2007; Richards 2015). The themes of the guidelines were to explore a) demographic information of the study participants, b) types of work they do in the workplace and at home, c) health and safety issues in the workplace, d) health services and barriers, e) challenges they face at work during pregnancy.

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knitwear and sweater garment manufacturers and exporters of the country. It works with government, manufacturers, and importers to ensure the foreign exchange earnings for the country. It also works with the employees and manufacturers to ensure wages are properly paid, and to monitor the OHS status of the workers (BGMEA 2017).
These tentative themes of interview guidelines evolved during fieldwork so as to understand the lives, experiences, and perspectives on health of the study participants through iterative processes. Most of the interviews lasted approximately one- to one-and a-half hours. All the interviews were digitally recorded and detailed field notes were taken simultaneously during each interview and focus group discussion. All of the IDI participants preferred to be interviewed at their home. The KIIIs were conducted in the offices of the key informants, with prior appointments.

5.5.3 Focus group discussions

The Focus Group Discussion (FGD) is a form of interview that takes place with a group of people who can be familiar with one another or not, but who should have relatively similar backgrounds and experiences that enable them to discuss the study topic effectively (Pelto and Pelto 1978). Denzin (1994) suggests that a focus group should consist of a small group of individuals, generally between six and 10 people. In this study, the FGDs consisted of eight to 10 people, all of whom were female workers in the garment factories.

The participants in FGDs meet to express their views about a particular topic identified by the researcher. The main purpose of conducting a FGD is to listen to others’ opinions in order to understand their views about the study topic. The discussion among the group of participants is guided by a moderator or a facilitator who introduces him/herself and helps the group participants to be active and natural during the discussion. The strength of a FGD depends on allowing the participants to agree or disagree with each other. Potential agreements or disagreements between the study participants during the discussion provides an insight into how a group thinks about an issue (Denzin 1994). It generates a range of opinions and ideas to enrich data. It also explores the inconsistencies and variations that exist in a particular group in terms of their beliefs, experience and practices (Denzin 1994).
Four FGDs were conducted in the factory workers’ residential areas. In this study, the FGD contributed to the answering of focus questions 3 and 4, particularly in the gaining of knowledge of the experiences of the workers in health and safety issues at home and in their workplaces. Other aspects that need to be considered for FGDs are the duration of the discussion, the skill of the moderator, and the language of the discussion. For this study, the duration of a FGD was one and a half–hours, based on the availability of the participants and on their level of interest in the issues discussed.

The second aspect of FGDs is the moderator. The moderator needs to have experience in facilitating FGDs. He/she should be sensitive to the participants’ needs and have respect for the participants’ opinions (Denzin 1994). A moderator also needs to have good listening and observation skills, plus patience and flexibility, which was the case here, as the researcher is an anthropologist with substantial work experience of conducting FGDs and felt equipped to moderate the FGDs herself. Another person was appointed as a note-taker to take detailed notes during the sessions, as well as to note all non-verbal responses such as gestures and expression. All discussions during the sessions were noted and recorded with the consent of the study participants.

The third consideration was language issues. The FGDs were conducted in the local language, Bengali. Thus, the study participants could express their ideas and opinions fully in their own language.

5.5.4 Observations

According to Marshall and Rossman (2014), observation is a process of collecting data in a systematic way in the real setting. Through observation, the researcher learns about certain behaviours and their meanings. Observation can be highly structured or non-structured, with activities involving mainly watching, listening, and interacting with the
study participants without interfering in their tasks (Pelto and Pelto 1978). Willms, Johnson, and White (1992) suggest that observation is a strong method because it has the ability to study a phenomenon in a natural setting and it helps the researcher to gain a deeper understanding about the behaviour of the study participants.

This research utilised the non-participant observation method as a means of collecting information on female employees’ work in the garment factory and in their home setting. Four factories were visited, two in Dhaka and two in Savar, for the purpose of observing the work environment, what the women do and how, facilities at the workplace, patterns of work, and how female garment workers and their supervisors behave in the workplace. Women’s participation both at work and during their lunchtime, along with their relationship with their co-workers were also observed.

In addition to the factories, observations were conducted in different places, including the factory clinic situated in a factory. The behaviours and attitudes of different health care providers were also observed when workers visited the factory clinic regarding illness. The living environments of the workers, i.e. their homes, were also observed.

Observation was crucial for this study because many issues related to the working environment were not fully captured through the interviews and FGDs. So there was the opportunity to directly observe the actual safety and health issues in regard to equipment, rest and toilet facilities, lunch rooms, and other physical conditions of the factory.

Overall, the observational data helped to verify the information collected through interviews. Observation enabled the witnessing of the physical condition of the factories and also highlighted how workers were working, how the management treated the workers, and how jobs were segregated by gender. Beside the observation of the workers’ living environment, eight observations (two in each factory) were carried out in the sample factories of the study.
area. The researcher entered the factory in the morning and stayed from morning to evening, so as to have a day-long observation. One of the challenges in observing the factory was getting permission from the owner of the factory. The professional networks helped to get entry to the factories.

5.6 Data Analysis and Management

5.6.1 Transcription and familiarization with the data

In this study, the data analysis process started with transcribing all the interviews with female workers, key informants and all the focus group discussions. All interviews were recorded on a digital recorder with the written consent of the study participants. A verbatim transcription of the interviews was then created in the form of a Microsoft Word file, which was then closely analysed.

5.6.2 Coding

After familiarization with the data, the key points from the narratives of the interviews were highlighted, using keywords to form a code. The primary stage of the data analysis entailed the process of open-coding which means that as much as possible of the data relevant to my study was coded, so as nothing important was missed (Gale, Heath, Cameron, Rashid and Redwood 2013). This involved classifying the data according to a range of issues i.e., health problems, safety problems, perceptions of health and safety issues, causes of health problems, seeking treatment for health problems, cost of treatment, gender roles at work and at home, changes in life after starting the job, future plans, self-identity, and so forth.
After conducting this process, a finalized set of codes was created, in which similar codes were combined. This process was completed when no additional codes emerged.

5.6.3 Analysis

Data analysis is an iterative process, involving concurrent data collection and analysis (Pelto and Pelto 1978). The current research applied the framework method as a means of analysis. This method is widely known in the discipline of social science research as thematic analysis or content analysis. It identifies commonalities and differences in qualitative data, before focusing on relationships between different parts of the data, thereby seeking to draw descriptive and/or explanatory conclusions clustered around themes. The framework method was developed by researchers Jane Ritchie and Liz Spencer, from the Qualitative Research Unit at the National Centre for Social Research in the United Kingdom, in the late 1980s, for use in large-scale policy research (Gale et al. 2013; Ritchie and Spencer 2002). It is now used extensively in other areas, including health research (Jones 2000; Pope and Mays 2000).

Its defining feature is the matrix output: rows (cases), columns (codes) and ‘cells’ of summarized data, provide a structure from which the researcher can systematically reduce the data, in order to analyze it by case and by code (Ritchie, Lewis, Nicholls and Ormston 2013). Most often a ‘case’ is an individual interviewee, but this can be adapted to other units of analysis, such as predefined groups or organizations. While in-depth analyses of key themes can take place across the whole data set, the views of each research participant remain connected to other aspects of their account within the matrix, so that the context of the individual’s views is not lost. Comparing and contrasting data is vital to qualitative analysis, and the ability to compare with ease data across cases, as well as within individual cases, is built into the structure and process of the framework method (Richards 2015; Ritchie et al. 2013).
## Table 5.2: Summary of the different data collection and analysis methods used

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Focus Questions</th>
<th>Research Design</th>
<th>Data Collection</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the health and safety issues for women who work in the RMG industry in Bangladesh?</td>
<td>What are the issues that impact on women’s health and safety and how are they influenced by gender?</td>
<td>Qualitative method</td>
<td>Literature and secondary review of data</td>
<td>Content analysis</td>
</tr>
<tr>
<td>What are the work environment and conditions for women employed in the RMG industry in Dhaka District?</td>
<td>Qualitative method</td>
<td>In-depth interviews, key informant interviews, observations, and FGDs</td>
<td>Framework analysis</td>
<td></td>
</tr>
<tr>
<td>What are the key OHS-service-related challenges encountered by the key stakeholders in the RMG industry?</td>
<td>Qualitative method</td>
<td>Key informant interviews</td>
<td>Framework analysis</td>
<td></td>
</tr>
<tr>
<td>What are the health and safety issues encountered by women who work in the RMG industry in Dhaka district?</td>
<td>Qualitative method</td>
<td>In-depth interviews, key informant interviews, observations, and FGDs</td>
<td>Framework analysis</td>
<td></td>
</tr>
</tbody>
</table>

The framework method is most commonly used for the thematic analysis of semi-structured interview transcripts, although it could, in principle, be adapted to other types of textual data, including documents such as diaries or field notes from observations (Pope and Mays 2013). Table 5.2 above provides a summary of the different data collection and analysis methods employed for this research beside each focus question.

### 5.7 Research Ragout and Ethical Clearance

In qualitative research, the rigour of the research is maintained through a data triangulation process, as was used in this research (Patton 2005). The primary data was collected via three data collection techniques: in-depth interviews, observations, and
FGDs. It was also collected through a literature review. Data collected from different types of respondents and sources helped to reduce bias, ensured consistency of results and enriched the credibility of the data. It also enhanced trustworthiness and validity.

Ethical approval for this study was requested from the Human Research Ethics Committee at Griffith University. The research methods, including research design and a set of sample research questions were submitted to this committee for approval. The fieldwork was undertaken upon the granting of this approval of the design and methodology of the study (GU Ref No: 2015/668).

Informed, written consent to participate in this study was requested from all study participants prior to data collection. To maintain privacy, anonymity and confidentiality of the data it was explained to each of the respondents that his/her identity and the information he/she would provide would be confidential. Prior consent was also requested for recording the conversations. If the respondents agreed, then the interview was recorded. If not (n=1), the interview was conducted without being recording. For this interview, detailed handwritten notes were taken.

The participants were assured that apart from the people directly involved in this research, no one would be able to see the information. After completion of the transcripts, all identifying information was removed from the transcripts and other documents. Audio recordings, transcripts and codes were in a non-identifiable form and generic terms such as study participants and female workers were used when making reference to all responses.

It was further explained that the study participants were free to decide whether or not to be involved in the study. During the interview, they could stop at any time if they decided to no longer be involved in the study. No money was provided for participating, although a small gift (value of US$2.3) was given to the IDI participants in appreciation of their efforts.
5.8 Challenges in Data Collection

At the beginning of the research presented three challenges. The first of these was that as a researcher, being considered an outsider. So the conducting of a familiarization process with the study participants was necessary. It was important that all of them, especially the female garment workers, should not feel threatened or uncomfortable in talking. In order to create a sense of trust and remove all sense of fear, the location of the interviews was based on where the female workers felt most comfortable. They expressed their preference to have the interviews in their homes, rather than in their workplaces. Hence, this was agreed.

There was a sense of acceptance and willingness to participate from the female workers. They sometimes talked for many hours about their lives, work, health, and changes. They were happy to tell their stories and discuss in detail the challenges they face in their everyday lives, their work experiences, and any issues regarding their health and safety in the workplace and at home.

The second challenge was becoming acquainted with the representatives of the BGMEA and the owners of the garment factories. At first, they were not willing to talk. Despite being introduced to the garment factory owners as a student from a university in Australia and explaining the purpose of the study, there was no trust in or acceptance of the researcher but rather, a sense of feeling threatened. They wanted to see the approval for the research, photo ID of the researcher, and local address to check the legitimacy of the study and the researcher.

Upon sighting the relevant information, there was still the suspicion that the study was being conducted by a journalist wanting to write a negative story about the garment industry, so as to destroy their business. However, after carefully reviewing all of the documentation, they agreed to participate as key informants.
The third challenge was in getting permission to enter each factory for observation purposes. Several garment factories were visited to meet the owners to explain the research and the rationale for conducting observations, but permission to enter was not granted by the security guards at the gates of the factories. Assistance was sought from the BGMEA, but this was also refused.

Five months later, through the help of the local NGOs, a meeting was conducted with four production managers of the four factories. Trust was gained via a long conversation with the production managers of the factories who in turn became the key informant interviewees. These interviews demonstrated to them that no harm would occur to them or their factories through this research. The factory managers conveyed a message of approval to their superiors, which helped the researcher to gain entry permission to conduct the rest of the interviews and the observations.

5.9 Conclusion

This chapter has described the conceptual framework that forms the basis of this study. The study design, study site, sampling, recruitment of study participants, data collection procedures, and challenges faced during fieldwork have been presented. Data analysis and ethical issues for this research have been described, along with issues of research rigour. The next chapter will discuss the findings of this research in relation to the work environment and health of the female workers.
CHAPTER 6

The Work Environment and Health and Safety Issues Encountered by Female Workers in the RMG Industry

6.1 Introduction

This chapter presents the findings related to the female employees’ work environment and their struggles with health and safety problems in the workplace and at home. The data includes the female workers’ narratives and a number of case studies (using pseudonyms) featuring quotes from the study participants. The findings detail who the factory workers are, from where and why they migrated, their work pressures, incomes, family expectations, job options, and future plans. They also highlight the workers’ sense of shame in sharing their health problems with male supervisors, along with the challenges in accessing treatment in the factory clinics.

6.2 Demographic Characteristics of the Study Participants

Details about the types of key informant participants are presented in Table 6.1. The socio-demographic characteristics of the female workers are included in Table 6.2. Most of the study participants were less than 31 years old. All of them were married, except for two who were divorced. Around half had only completed up to grade 5 in primary schools; had never had any formal education; and only one woman had completed grade 10. Most of the female workers had migrated to the study sites from rural areas, due to poverty. All of them had living children — generally one or two, although two mothers had three children each. Some of their husbands were also working.
at the same garment factory, while others were working as day-labourers in different sectors, such as construction or carpentry.

Table 6.1: Key-informant interview participants (KII) by type

<table>
<thead>
<tr>
<th>Category</th>
<th>KII participants by type</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Government Officials from the Ministry of Labour and Employment</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Supervisors in RMG factories</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Doctors working in RMG factory clinics</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Representatives from the BGMEA ( )</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Table 6.2: Demographic Information of IDIs and FGDs participants

<table>
<thead>
<tr>
<th>Demographic Features</th>
<th>IDIs (n=20)</th>
<th>FGDs (n=36)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-23</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>24-31</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>32-40</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>40+</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Unmarried</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Number of children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>2 or 3</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>20</td>
<td>36</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None/Illiterate</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>1 to 5 years</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>10+ years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helper</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Machine Operator</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Quality Inspector</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
6.3 The Working Environment, Gender Division of Labor, and Health Problems

In the production room, both men and women worked together. However, the production manager (PM), the person in charge of the floor who works under the PM, and the line supervisors on the production floor were all men. All of the sewing machine operators and helpers were women. Operators and helpers are the two lowest positions on the production floor. The female workers reported that they felt they could not comfortably share reproductive health issues with their supervisors, as they were men. In this regard one woman said:

When we have our periods, some of us get sick from excessive discharge of blood, so we need to go the toilet to change frequently, but we cannot share our problems, because we are embarrassed and they are all men around us.

Thus, they are unable to ask male supervisors to meet their health needs. The in-depth interviews with the female workers and the site observations identified how the conditions of the work environment can affect their health. One female worker reported that:

...the floor is overcrowded and we have difficulties breathing due to fabric dust. There is no air conditioning, although there are electric fans on the production floor and the workers suffer heat exhaustion during summer, as the number of fans is not sufficient. They suffer due to the smell of sweat, the noise from 500 machines in one large room, poor lighting, and having to climb up to 10 flights of stairs twice a day, despite the presence of lifts. The lifts are reserved for the owners, managers, and their visitors.

9 The results presented in this chapter are part of an article that has been submitted to the International Journal of Qualitative Health Research and is currently under review. The authorship of the submitted manuscript is Akhter, S., Rutherford, S. and Chu C. (2017). The title of the manuscript is “Sewing shirts with injured fingers and tears: Exploring the experience of female garment workers’ health problems in Bangladesh”. Manuscript ID QHR-2017 1062.
Amena’s story describes a typical workday and its impact on her health and wellbeing as a machine operator:

Amena is a 25-year-old woman who has finished primary education (five years) and started her job at the factory as a healthy woman around four years before the interview. She explained how her work as a machine operator caused health problems: she sits on a small wooden stool without a backrest for 10-12 hours each day. She sews the cuffs of shirts, one hundred per hour for the whole day, which puts constant pressure on her fingers and wrists. This sitting arrangement at work causes constant pain in her back. Additionally, the work is monotonous and repetitive. The poor lighting, inhalation of fabric dust, and the heat in the factory most likely contribute to headaches and eye irritation. She indicates that the factory provides a face mask to protect workers from inhaling the fabric dust, but Amena does not use it because it makes her feel even hotter during summer.

Despite there being doctors available, the workers do not have the opportunity for regular medical examinations to check their health status. Amena added:

I was not as lean and thin as I am now. I lost weight after starting work at the factory and lost my beauty. When I see myself in the mirror I cannot recognize myself. I do not get enough time to sleep and rest. Now I always have dark spots under my eyes.

6.4 Physical Illness, Injuries, and Medication

The factory employees work for very long hours. The women reported that they are officially required to work for eight hours per day, but that the production quotas are so high that they routinely work 10 to 12 hours to meet the quota. The extra hours to meet the quota should be paid according to regulations, but not all factories participating in this study fulfil this obligation. The female workers reported that they do not refuse to do paid overtime, as they can earn some extra money. However, these extra hours of work and money make them feel
sick. They reported suffering from headaches, eye complaints, general body aches, and fatigue, adding that these physical illnesses have become ‘normal’ in their lives and that they can live without treatment.

One female worker, Jorina, describes her situation as follows: ‘I started working at this factory five years ago as a helper. Now, I work as a machine operator. I sew shirts’. Her monthly salary is 7000 taka (US$87) and with overtime, she earns 10,000 taka (US$125). She works 2 to 4 hours overtime each working day, six days per week (total 28 days per month) to earn the extra money. She further added ‘I do overtime to earn some extra money to pay for food, house rent, and education for my children.’ This work gives her the opportunity to earn extra money, but she suffers from headaches, muscular pain and back pain. She continued:

I have been working for the last five years with these pains. Now I don’t think that they are pain, I even don’t go to the doctor. As I work as a machine operator [operating with pedals], I always feel pain in my legs. I buy Panadol from the pharmacy and I take this tablet when I cannot endure the pain in my legs.

Aklima’s Story

Aklima is a 30-year-old woman who completed her education up to grade five. She works as a sewing-machine operator. She frequently suffers from finger injury from needle punctures. She says:

We sew shirts with our tears and injured fingers due to needle punctures. If you work at the garment factory it will give you some money but it will take your health. Every day my fingers get injured due to needle punctures. I should wear a needle guard to save my fingers but I can work faster if I do not put the needle guard on my fingers. Now I do not care about needle injuries. I just think I need to work hard to earn more money to save some money for the future of my family. No one can work in a factory more than 10 years because you will lose your physical strength, energy and health after 10 years due to the nature of hard work in this industry.
Another female worker explained:

I work as an ironer and I have burns every day on my hands and fingers, from the heat iron. I bought an ointment by myself to treat this. I also take Panadol and it becomes our main medicine to survive all of our physical illness and pain. Every woman who works at the factory carries Panadol and eats it like rice because we all suffer from different pains and injuries in our body. Panadol helps us to survive.

6.5 Work, Rest, and Home

All of the women stated that meeting the demands of their job and taking care of their family members is a constant battle in their lives. The activities of women within the household include taking care of children and other family members, especially husbands, preparing and serving food to family members, washing, and cleaning. All female workers reported that the factory work gives them an opportunity to earn money, but their workload is doubled. They work at the factory but they also need to do all of the household work. They further stated that they do not receive enough support and care from their husbands when they return home after work. Instead, they feel pressured to do all of the household work to make their husbands happy.

Kamrun’s Story

Kamrun, another female worker, described her situation:

I started working at the garment factory 3 years ago. Now, I work as a quality inspector. I check the quality of every sewn trouser. I need to do the work constantly by standing in front of a table. I always feel pain in my feet for standing for a minimum of 10 hours per day. Now it is the holy month of Ramadan. We fast from very early in the morning to evening. We get one hour break during the evening to break our fast. We get a long vacation (10 days) during our Eid [the biggest Muslim religious festival at the end of Ramadan].
We are working 7 days in this holy month of Ramadan to compensate for the days we will get as vacation during Eid. In fact we need more rest during Ramadan as we are fasting. Instead, we work more this month to compensate for the days off.

She added:

When I return home after work I need to do household work. My work at home as a woman remains the same despite working at the factory. Last week I fasted, I worked the whole week and after I returned home I felt so tired that I couldn’t cook. I lay down and fell asleep. When I sleep sometimes I cannot move from one side to another side. I feel that I am paralysed as I work standing up. My husband became angry with me as I couldn’t cook for him. I need to make happy every day two of my supervisors, one at work and one at home. No one wants to listen to your pain of tiredness. Both of them want us to work.

She further lamented: ‘I am working hard at the factory and at home but most of the time I cannot make happy either my supervisor or my husband’.

6.6 Paid-Work Choices, Employment Longevity, and Future Plans

All of the study participants reported that working in the garment factory is better than working as a domestic servant, a sector where unskilled women are generally employed. They further stated that they had no choice except to work as a domestic servant or as a factory worker. As factory work is seen as a profession, it gives them social identity. They can do extra work to earn extra money, but in domestic work, they cannot do this. Although they work most of the weekends in the factory, they do get some holidays.

Sabia is a 25-year-old woman who came to Dhaka with her husband and children for work. She can only write and read her name. She used to work as a housemaid in Dhaka, but the employer did not treat her well or give her food. Furthermore, the salary was very low. She wanted to change her job, so she talked with one of her neighbours who worked at a garment factory. The neighbour took her to the factory to meet her supervisor, who, after seeing her
national ID card, gave her a job working as a helper. She folds the finished shirts to pack, standing all day. Since starting to work in the factory as a helper, she has experienced pain around her waist. The doctor said she needs to take breaks during work, but running to meet the production quota does not give her any opportunities to take a rest during working hours.

All of the study participants shared their plans for the future. Everyone indicated that they would work no more than 10 years in the garment industry. Many of them had already been there for five years and would most likely work for another five years. Then they hoped to return to their own village. They were trying to save some money to buy land in their village and build a house. Some of the women reported planning to start a tailoring business in their own village on their return. All of them said that they would then no more factory work: rather, they wanted to rest and spend time with their family.

6.7 Perspectives of Key Stakeholders on the Health and Safety of Female Workers
The KIIs focused on the health problems facing the female factory workers and the health services provided by the factory clinics. One of the factory supervisors described how the factory clinics run:

The factory provides health services to the workers through the factory clinic. The clinic has a sick room and nurses. Doctors are available in the afternoon but the nurses are available the whole day. If you [pointing to the researcher] visit the factory floor you will see first-aid boxes are available on each floor to treat them for small injuries, fever and headache. We have paramedics on each floor to treat the workers. When the paramedics cannot treat the problems they refer the workers to the factory doctor for further treatment.
A factory doctor explained the health problems associated with the work carried out by the factory workers:

The female workers suffer mainly from headaches, eye pain, back and joint pain and weight loss. The first three health problems occur due to the repetitive nature of the work. Weight loss is very common among the female workers. The reason for weight loss is not getting opportunities to take enough rest and not eating enough food. But they work hard to earn money to run their family. We can only advise them to take enough food and to have enough rest.

Another doctor identified health problems related to their specific job position:

The women who work as machine operators come to the factory clinic with a complaint of suffering from dry cough. As machine operators they inhale dust from fabrics as they are continuously sewing clothes. The machine operators also suffer from injury due to needle punctures. The factories provide needle guards and masks but they do not use them. Sewing machine operators also suffer from back, neck, and shoulder pain. The women who work as a quality control inspector and ironers suffer mostly from musculoskeletal pain in the knees and thighs due to working for long hours standing. Some women complain about losing their hearing. They do not lose hearing power but the noises from the machines give them a headache.

The government officials and representatives from BGMEA reported that the factory clinics (as described in Chapter Seven) provide very limited health services. They mostly prescribe painkillers to treat the illnesses of the workers, along with some health advice. The doctors and supervisors were asked about the longevity of the employees’ working tenure. In response to this question the respondents reported that female workers cannot work more than 10 years because they get physically exhausted and unfit to work.

6.8 Conclusion

The results presented in this chapter indicate the everyday health problems of female workers.
The factories are run to meet production deadlines that force employees to work long hours. The long working hours, the physical environment of the factory - inhalation of fabric, dust, noise, lack of ventilation, inadequate lighting, and the type of work (the monotonous repetitive work including sitting in one position) - mean that women suffer from musculoskeletal pain, headaches, eyestrain, and a feeling of permanent fatigue. The findings further reveal that physical illness and injuries are managed on a daily basis only with Panadol and ointment.

This chapter also provides an insight into the dual burden of work for these women: after a long day at the factory, women have little rest at home, as they need to work as wives and mothers to perform their socially-determined family responsibilities. The issues of health and safety confronting female workers have a long-term physical impact on their general lives and affect the sustainability of their working life. Women have limited facilities and access to health services at the factory clinics. Simultaneously, the doctors have indicated that the physical work environment and the nature of the job are affecting the health of female workers. After participation in paid work in the RMG, the gender roles of the women have changed, something that in itself has created conflict in their lives (for instance, some are mothers who spend lengthy periods of time away from their children.

Chapter Seven will offer an ethnographic account of the work and of how the new gender roles and the stress of female workers affect their mental wellbeing.
CHAPTER 7

Work, Gender Roles, Stress, and its Impact on Mental Wellbeing

7.1 Introduction

This chapter further explores the experiences of female garment workers by describing the challenges for these young rural women who have migrated to the city to work in garment factories; the conflicts associated with the work earnings that support their family and provide them some level of economic independence; and the separation from their children. It describes the resulting impacts on their mental health and wellbeing. The findings of this chapter are based on the views and perceptions of the female workers and the key informants. The data collection method and demographic information of the study participants were provided in Chapters Five and Six.

7.2 Stress: The Nature of the Work

At the factories visited, there were three levels of female workers: quality inspectors, machine operators, and helpers. Three quality inspectors, five sewing-machine operators, and 12 helpers were interviewed. The quality inspectors, sometimes called quality girls, stand in front of a table 10-12 hours per day, checking the quality of the products and affixing a tiny round sticker marked ‘QC’ to indicate that the product has passed the quality check. The sewing-machine operators sit on a small stool, continuously running a sewing machine on

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average 10-12 hours each day. Each machine operator does one task for the entire day and week. There is no task rotation. The helpers, who have the lowest position on the production floor, work in a standing position and are allocated different types of work, such as cutting thread, folding the shirts, placing collar inserts, and ironing the products. These women do the most repetitive jobs on the production floor. Once again, they only do one task (e.g. cutting thread), and they do this every hour, every day, every week. It is piecework, in that each worker is expected to meet a daily quota, snf must remain at work until this quota is met. One female worker said:

We need to make 100 shirts per hour. I can make 89 shirts per hour. I am 1020 shirts behind per hour. I need to work an extra 2 hours every day to meet the production quota. When I return home at night, I need to do all of the housework, such as cooking and cleaning.

The women enter the factory by 8:00 am and return home at around 8:009:00 pm. In this regard, one female worker said:

I work from dawn to dusk. I see the sun rising, but it is rare that I see the sun setting, as I always return home after dark.

They have one break for 1 hour at lunchtime. That is, they work around 12 hours a day, depending on how quick they are at meeting their daily quota. They walk to and from work for a total of around 30 minutes per day. The normal work week is six days, but for nine months of the year, they are required to work seven days a week. They are able to take a maximum of 710 days’ annual leave twice per year during national festival periods.
7.3 Stress: Separation from Children

As all of the study participants were mothers, separation from their children is an important issue for them. Most had left their children in their home village, citing lack of time to care for them, due to their long work hours and difficulties in paying for the costs of their children to live with them in the city. They work from morning to night and during weekends, with nobody at home to look after their children. They get leave only a few times a year, and the distance to their villages can be up to 10 hours’ travel time. As such, they have no option but to leave their children in their village to live with their grandparents. Avoiding long working hours is impossible, as they need money to provide for their impoverished families.

Each of our study participants shared their tribulations as a mother living away from her children. Most of the women said that they lived with constant feelings of guilt, anxiety, and poor appetite, and that these feelings contributed adversely to their mental wellbeing. One female worker described her sad experiences:

Last month, I cooked fish and meat. I also cooked some rice [i.e., she was eating better than her son in the village]. That night, my son called me from my village and he was crying over the phone to see me. I tried to make him calm and committed to bring him to me as soon as I can. After that, it’s been a month that I couldn’t go to my village to bring him to me. I spend my nights without sleep and I cannot eat, as I always feel guilty about my son.

Our study participants also indicated that they felt restless, fatigued, and wanted to die, due to the longing for their children. They struggled to find meaning in their life, as their children were away from them. They explained that when they talk with their children by phone, they always promised to bring them back, but they could not. The guilt of telling a lie to their children made them feel empty, and thoughts of suicide were common:
I suffer from constant pain in my heart. I always miss my child, as my child is part of my body. I feel constant pain in my mind and my heart burns. I do not have anybody to share my pain. I feel very empty inside. Life has no meaning to me. Rather, I feel that I should die when I see children with their parents.

Another woman explained her feelings:

I came to Dhaka from the northern part of Bangladesh for a job at the garment factory, with a woman who lives at the same village. The woman helped me to get a job at the garment factory. I have been working at the factory for the last 5 years as a sewing-machine operator. My son was very sick with high fever and vomiting. On that day, I carried my cell phone with me in secret inside the factory to talk with my parents to know the condition of my son during work. I stayed a few minutes longer than the usual time in the toilet to make a phone call secretly to talk to my parents. The supervisor observed me and seized my phone. I was sewing a shirt in tears, as I couldn’t return home till night and wouldn’t be able to talk to my parents to know the condition of my sick son. I felt so suffocated. I couldn’t breathe, felt so restless for my son, and also felt as if I would die when my phone was taken from me. My supervisor saw me crying. He got angry with me, as he thought because of my crying I would get slow to meet my production quota. This work does not give me anything except some money.

7.4 Inadequate Health Support

The factories in our study sites have clinics that run six days a week from 8:00 am to 9:00 pm, providing health services to the workers,. They are also open during the weekend if the factory is also open. The factory clinics mostly provide basic painkillers and oral saline as medicines when workers get sick. They have a very limited number of beds and other equipment. They do not have established referral pathways with the government hospital for further treatment of the workers if deemed necessary.
Their services are limited to basic physical health problems, although factory doctors reported that female workers suffer from depression related to managing the stress of work and their family life. They indicated that they do not have any facilities to counsel the female workers when they communicate their stress:

We only provide primary health care services, such as when any worker gets sick from cold or fever, we give them treatment with Panadol. If the workers have an injury, such as a cut or needle puncture, we provide them with some treatment. If they have a small burn, we take care of them. We cannot counsel them when they are under stress in managing their family and work.

The doctors also acknowledged that they were providing very limited services to the workers by having insufficient staff to serve the number of workers. One factory clinic is staffed by two nurses and two doctors to serve thousands of workers. The nurses work by rotation and are available from morning to evening, but the doctors are available for only a few hours on weekday afternoons. In this regard, one doctor said:

We have a total of 3,000 workers in our factory, but we do not have enough medical staff to provide good service to the workers. The factories do not have enough in the budget to bear the cost of the treatment for the female workers.

A majority of female workers reported a lack of acknowledgement and compassion from the health care providers when consulted about female workers’ concerns. They also indicated that this indifference to their problems made them more upset. They further reported that due to the nature of their job, it was difficult for them to manage the time to go to the government hospital. One female study participant described the attitude and behaviour of the doctors and nurses when they go to them for treatment:

We only get treatment for some common diseases like fever, cold-cough, and headache or if we get injured during our work, but they do not care about our mental health. The doctor and nurses of the factory do not want to listen to our sufferings
of everyday life. They do not give us enough time. If we want to share our pain of life, they will hurry us to go to work. They do not have any sympathy for us. If the doctor would listen to us, our pain of suffering would be lessened. We cannot go to government hospitals, as we work from morning to night. We cannot go to a private doctor, as it costs a lot of money.

7.5 Different Stakeholders’ Views of the Situation

7.5.1 Voices of the female workers

The narratives and experiences of female workers revealed another aspect of the behaviour of their supervisors and how they are treated at the workplace when they get sick. One IDI participant revealed her perspective:

Our bosses want us to work and work to finish the target quota. If we cry, feel bad for our children, and seek leave to go to our village, they scream at us, saying that we always look for excuses for leave and treatment. They do not care how much we suffer for our children, as a mother living away from them. They do not care about our stress from hard work. They would say instead to leave the job to stay at home to look after our children. They would also say that you do not need to come to the factory again for work.

Another female worker expressed how the lack of sympathy from their supervisors added to their depression:

We don’t know where to go for health care when we cannot sleep night after night, due to feelings of guilt for our children. Our supervisors do not have any empathy for our health, sufferings, and pain. Our doctor and nurses do not care about us. Sometimes we feel like we have no place to go to share our pain. If we share our pain with our husband, they will say to leave the job. If we leave the job, who will give us food and shelter?

All of our study participants stated that although their access to treatment for their physical illness was limited, they do have some access. They can even share the physical illness, as it is
visible. But the continuous battle with depression, guilt, stress, and the non-empathetic behaviour of their employers exacerbated their mental health issues:

When I get physically sick from any diseases, I have medicine to get well from it but no medicines to get well from mental health problems. I feel I want to die when our supervisors behave badly with us. I work hard all day and night but I could forget all these pains if I could see the smile of my child after returning home from work at night.

7.5.2 Voices of the supervisors, government officials, and BGMEA representatives

The supervisors acknowledged their poor attitudes and behaviour towards the female workers, but blamed heavy workloads and the stress of fulfilling production quotas:

Most of the days, our workers work from morning 8:00 am to 9:00 pm to meet our production quota. The nature of work in the ready-made garment factory is like this. I am to be blamed by the factory owner if I cannot meet the deadline and the factory owner needs to deliver the production to the foreign buyer on time. There is no option to work except under pressure. We do not have time to listen to the complaints of the workers.

Another supervisor of a factory said:

They earn very little amounts of money. If they bring their children, they need to rent a big house and they also need to bring their mother or mother-in-law to look after the children. They can’t afford the house rent. Now they are living in one room and they pay 3,000 taka per month. It will be double if they hire two-room houses. The food cost will be double. Food and everything is cheaper in the village compared to the city. So it is better if they keep their children in their village with their grandparents.

Discussions with government officials revealed that the government is concerned about the health problems of the female garment workers. One government official said:
We are a poor country. We have a lot of problems. The poor female garment workers suffer from many problems, and we know this. We are trying our best to create a safe working environment for female workers. We are thinking of increasing daycare facilities for these working women. We do not know magically how to solve the problem overnight. We have already increased their wage so that they can live a decent life.

Representatives of the BGMEA stated that they do not receive many complaints from factory workers about the problem of their mental health; rather, they receive many complaints about their wages. They also indicated that the BGMEA is a voluntary organization, and that they do not have enough power to deal with factory owners about the health problems of the workers. In this regard one respondent from the BGMEA said:

These female workers are working hard, and they are contributing to the economy of the country. So the factory owners, buyers, and the government all need to sit together to create good health care systems for these workers. The BGMEA cannot solve the problem individually.

7.6 Conclusion

The results presented in this chapter reveal that female workers are contending with new forms of anxiety due to their conflicting roles as workers and mothers. The findings describe how female workers seeking job opportunities are affected by migration from rural areas to the RMG industry in the city. Their children usually stay in their village with their grandparents, because of their mothers’ work conditions and the lack of childcare. The women reported stress, anxiety, restlessness, and thoughts of suicide, due to the double burden of work and separation from their children and family support. The employees accept the work to improve their lives and wellbeing and ideally, they would prefer to live with their husbands and children. However, with their current wages, it is not feasible to live with their families in these urban settings. Hence, they have to be separated from their families to earn these wages.
Further, they cannot easily access government hospital services, due to their long work hours, and the limited medical services provided in the workplace do not meet their needs. These mental wellbeing challenges are often exacerbated by their treatment by factory supervisors. In the next chapter, violence against female workers, the coercive supervisory practices and their impact on their health and safety are discussed.
8.1 Introduction

As discussed in Chapter Two, in 2003, the ILO released a code of practice on workplace violence in services sectors, which defined violence as ‘[a]ny action, incident or behaviour that departs from reasonable conduct, in which a person is assaulted, threatened, harmed, injured’. A decade later, the ILO broadened the term ‘violence against women and men at work’ beyond traditional physical violence at workplace. The ILO included psychological violence, which also refers to ‘emotional violence’, i.e., verbal and non-verbal abuse, bullying, isolating the person, giving impossible quotas and deadlines and hindering access to health care (ILO 2016a).

This chapter presents the findings of the female workers’ personal experiences of violence in the workplace, including verbal and physical abuse, threats, impossible quotas and deadlines, and restricted access to health care. It also presents the perceptions of supervisors, government officials, and representatives from the BGMEA. Data was collected through factory observations, in-depth interviews, and focus group discussions, as described in Chapter Five.

8.2 Verbal and Physical Abuse

All the female workers of this study reported that their supervisors frequently shout at, insult, criticize, and speak harshly to them in their workplace. Shouting was the most common type of
Abuse, and women felt that the supervisors lacked empathy. They also mentioned that supervisors shamed them in front of others. Many of the women said that ‘the supervisors insult us like we are not a human being and maltreat us like a maid’.

One female worker said:

If we make very small mistakes during work, the line supervisors scream at us. We do not say anything because we may lose our job. We cannot even talk with each other during work.

Some female workers reported experiences of physical abuse in their workplace, though this was less common than verbal abuse. The most common types of physical abuse reported were slapping, pinching, pushing, and throwing the clothing pieces in their face. One woman reported:

Today I was thirty minutes late to arrive at the factory and my supervisor got angry with me. He pushed me, yelling and raised his hand to slap. Then another supervisor came to us and took him away from me.

The reasons for the physical abuse were articulated by another worker:

If we cannot meet a target or if we make a mistake in our work they will hit us. One of my supervisors once threw clothing on my body as I made a mistake while sewing the shirt. If we raise our voice then they will get crazy and slap us.

The women shared that they feel powerless and panicked, as the supervisors are physically stronger than them and they have the power to make them jobless. The women cannot protect themselves; rather they keep silent because if they cry or make a noise, they are worried that the supervisors will hit them again.
8.3 Behaviour Restrictions

Factory observation revealed that women work under hot lights and with very limited artificial cooling—usually electric fans. The production floor runs hundreds of machines continuously and it is noisy. The women sweat due to the temperature and lack of ventilation, but are not provided enough small breaks to take a drink, as the supervisors consider it a waste of time. They are provided a one-hour lunch break in a 10-12 hour day. Women reported that their supervisors believe that if they were to frequently drink water, they would need to go to the toilet too often and would not meet their production target.

One female worker said:

We don’t drink water much because then we need to go to the toilet. If we drink water more, we need to go to the toilet three-four times a day, but we do not have time to go to the toilet, because we need to meet our daily production quota.

The female workers reported that they are isolated from the outside during working hours. They are not allowed to bring their cell phones to work. When they enter the factory their bags are searched by the gatekeeper to seize the phones. This restriction becomes problematic for the women, especially when their family members are sick at home. When this happens, they may smuggle the phones into work and have a talk with their family secretly when they go to the toilet. However, they are verbally and physically abused if the supervisors find out about the presence of their phone.
In this regard one woman explained:

We feel like we are out of the world when we enter the factory, we cannot talk with our family members by phone during working hours, and our phone is seized if we bring it in secretly.

### 8.4 Constant Pressure

#### 8.4.1 The daily production targets

The women need to make 100 shirts per hour in their 10 to 12 hour day. The women can generally make 80 shirts in one hour, meaning that they regularly fall 20 shirts behind per hour in meeting their daily production target. The women regularly need to work an extra two hours without payment to meet the quota. If they complete their target, then any extra production earns overtime payment. The female workers mentioned that the pressure of production quotas is inhumane and unattainable. They explained that if they cannot complete their hourly targets, and on most days they cannot, they are verbally abused, shamed in front of all, and their pay is docked.

#### 8.4.2 Threat of job loss

All women indicated that they regularly experienced the threat of losing their job, which would make them extremely vulnerable in economic terms, so they always tried to compromise with their supervisors. The women have reported that there is a complaint box if they are physically or verbally abused. However, they do not dare to lodge complaints because, as they indicated, the supervisors get more dangerous and want to take revenge. They also reported that they always tried to be silent and not argue with their supervisors when the latter got angry with them.
One female worker said:

We work in an open space. When our supervisors physically or verbally hit us everyone can see it. If we put a complaint in the complaint box it does not remain secret. Eventually the supervisors come to know it and then they take revenge. They will make you lose your job. Some of our co-workers put complaints in against our supervisors and they had to leave the job.

8.5 Lack of Access to Needed Medicine and Being Falsely Accused of Stealing at Work

The women mentioned that they suffered from gastric problems, headaches, body aches, eye pain, and fatigue. The most common injuries are finger punctures from sewing and burns from ironing. The women reported that medicines in the first-aid box are often not available and locked away, as they are falsely accused of stealing items from the first-aid box, supposedly available on each production floor. The women suggested that the factory manager locked the first-aid box because there was no medicine in it.

One female worker reported:

We do not get medicines when we get injured by a machine or from ironing. Most of the time there are no medicines in the box. They always accuse us of stealing medicine, but we never do this. Why should we steal medicine? Is it a food that we will eat when we are hungry? We feel so sad, insulted and helpless when we are blamed for stealing medicines.

8.6 Impacts of Workplace Violence on the Female Workers’ Health

All the women reported that after returning home from work, they feel sad and cry, because of the physical and verbal abuse from their supervisors. They also reported that they cannot sleep or eat properly. They keep silent even when they feel agitated, angry, and upset but they
cannot express their feelings. Rather, they are expected to be silent while they are being abused. The women reported that the supervisors never apologize to a woman. The women stated that if they apologized, it would help to ease their pain.

In this regard, one female worker explained her health problems as being exacerbated by a sense of powerlessness:

The only reason I work in the garment factory is money. This is the third factory I am working at. I left two other factories because the supervisors of the factories did not behave nicely with the workers. I heard that this factory is good; they do not display bad behaviour with the workers. So I joined to work with this factory. But the supervisors always shout at us. We all work hard and we deserve good behaviour but we receive bad behaviour. They know we cannot do anything against them so they always misbehave with us. We always feel upset.

Another woman said experiencing abuse was destabilizing for female workers, who are often vulnerable at work:

The attitudes of our supervisors make us sick. If they talk and behave well with us, encourage us and appreciate our work, we become happy after working hard. When they are rude and harsh, we become upset and feel threatened. All of our supervisors are male. They always show their physical strength to us as they know we are physically weaker than they are. It makes us feel so helpless.

8.7 Employers’ Perspectives

The production managers and supervisors explained that the female workers can be disobedient, non-cooperative, and unwilling to work. They believe that female workers gossip, spend time in the toilet talking with family members, and waste time talking with and being distracted by male co-workers. They further stated that without verbal shouting, it is impossible to control these women. A production manager said:
These women are uneducated and lower class. You cannot control them if you always talk with them nicely. We need to shout at them. If you talk with them nicely, they will be more disobedient.

Another supervisor explained:

Garment workers always work under pressure. We need to control the women. If we do not shout at them, they will talk and we will always lag behind in meeting our production target. We need to rule them by shouting and yelling.

The employers did not acknowledge that there was physical violence against female workers. They acknowledged verbal abuse, but not physical violence.

In this regard, one supervisor said:

Women were physically abused ten years back, but now it is rare that women are physically abused. The working environment has improved; we do not physically hit any women.

According to the employers, the women are not of good character, suggesting that they lie and steal medicines and toilet accessories. One manager of a factory said, ‘always ask for sick leave, but they are not sick. They lie to us. We do not trust them.’

8.8 Views of Government Officials and the BGMEA

Opinions about the abusive working conditions in the garment factories were asked of the government officials. Discussion with them revealed that the issue of safety upgrades in terms of building structure was given more weight than personal safety from violence and threats. According to government officials, the working environment has improved since the fatal Rana Plaza incident. They reported that the factories now have fireproof doors, fire alarms, fire extinguishers, and good electrical wiring to prevent fire incidents and building
collapse in the future. The researcher observed a sign of 'Safety First' in the main stairway of the factories and on every floor. One respondent explained:

We are investing huge money to make the building safe for the workers and also to meet the needs of the buyers. If the women still feel that they are not safe in the factory, what more can we do for them?

However, neither the government officials nor the BGMEA representatives made any comments about violence towards female workers, although they acknowledged that women were sometimes verbally abused. They also explained that a large number of women work on a production floor and the managers and supervisors verbally shout at them in order to maintain discipline on the floor. One government official said:

We sometimes hear about some verbal abuse during work at the workplace. Our factory inspectors report it to the factory authority, but we do not receive any official complaint of violence against female workers. It may happen as they always work under pressure to maintain discipline in the factory.

8.9 Conclusion

This chapter describes the multiple forms of violence endured by female workers in their workplace. The most commonly reported types of violence include verbal abuse, restrictions on various rights, work constraints and physical violence. Restrictions on rights include permission to go to the washrooms, drink water and use phones. Women also cannot complain about the supervisors, as they may lose their job, and be more vulnerable to threats of violence. These restrictions at work make women feel confined. The results place the spotlight on how male supervisors treat women employees in the workplace.

The violent acts are labeled by the supervisors as techniques to discipline the women in the work environment of the factory. This description of the experience of violence focuses on
two key aspects of the phenomenon. First, violent acts in the RMG industry bring humiliation and suffering to the lives of female workers, and the impact of this violence towards women’s health and safety is considerable and perhaps even disturbing. Second, this chapter also provides the social norms and attitudes of key stakeholders on the highly gendered factors influencing these violent acts.

Acting on the accounts of the violence, stress, and wellbeing experienced by the workers, the next chapter explores further the experiences of a particularly vulnerable sub-sample of female workers: those who are pregnant.
CHAPTER 9

Experiences of the Most Vulnerable: Being a Pregnant Worker in the RMG Industry

9.1 Introduction

Chapter Five noted that a total of 20 women were interviewed. Out of these women, six were pregnant and reported that they had developed health problems, including diabetes and hypertensive disorders during pregnancy. In order to better understand the health and safety problems of the pregnant workers, this chapter focuses on these women and explores their economic and social vulnerability, their activities in the workplace and at home, the current regulatory environment, and how these issues affect their health during pregnancy. These women were aged between 20 and 35. None of them had completed primary education (up to grade five).

Three of the pregnant workers were working as sewing machine operators, which is a job that requires sitting constantly in one position on a small stool to run a machine. The other three worked as helpers, restricted to one position, either sitting or standing to cut the thread of the fabric (see Figure 4.1 in Chapter Four). Interviews with the pregnant workers revealed that the women had migrated from their villages to work in the RMG factory, due to poverty. This job created an opportunity for these women to generate income to support their families. This chapter presents findings of health and safety issues encountered by the pregnant workers, including the perceptions of the key informants of their health issues.
9.2 Pregnancy and Barriers to Accessing Health Services from Factory Clinics

The pregnant workers reported that they do not visit the factory doctor for an ante-natal check-up when they first suspect that they are pregnant, because they feel they need to hide their pregnancy from their supervisors. The women need to meet a production quota of one hundred pieces per hour. If they lag behind the quota due to their pregnancy, their supervisors will encourage them to leave the job. They will also not be assigned to do overtime to earn extra money. They only go to the factory clinic for a check-up when their pregnancy becomes visible. They further advised that they do not go to private clinics because of the cost, adding that they cannot go to the government hospital, because of their long working hours:

We enter the factory at 8:00 am in the morning. We return home at night. We work 1012 hours per day and sometimes seven days in a week. We need to meet production quotas, 100 pieces per hour. I could do it but after getting pregnant I cannot meet my production quotas. First few months of my pregnancy, I did not feel well; I felt all the time nausea, headache, and fatigue. I took more small breaks and I became slow to meet my daily quota. I did not go to the factory doctor for a check-up because my supervisor will know that I am pregnant and would encourage me to leave the job as I was falling behind to meet the target due to my pregnancy.

9.3 Factory Work, Pregnancy, and Vulnerability

Our interviews with pregnant female workers revealed different perspectives about their health during pregnancy. They reported that the doctor of the factory told them they had a hypertensive disorder, and that ‘stress’ was the cause of their health problems. The female workers reported that they did not know if there was a relation between stress, work and illness. They reported that getting pregnant is a ‘normal’ experience that ‘every’ woman goes through, but the experience of pregnancy made them less able to cope with their work, due to the pressure and the nature of the job.

The following stories of two pregnant women who work in the RMG industry explore how the nature of their job, plus work practices at home and in the workplace affect their health. The narratives are from two women, Afia and Morium (both pseudonyms), who had developed hypertensive disorders during their pregnancies, as described to them by the factory doctor.

Afia’s story

Afia was a twenty-year-old woman from the northern part of Bangladesh. She came to Dhaka for a job at the garment factory with another woman who lives in the same village. The woman helped her to get a job as a machine operator. She had been working in the factory for the last three years. At the time of the interview, she was seven months pregnant.

Her husband is a driver. She was married three years earlier and had been experiencing pressure from her in-laws to have a child. Her three years’ work in the garment factory taught her to avoid getting pregnant, as the cost of pregnancy would be losing her job. According to her story, she got pregnant accidently and wanted to have an abortion, but her husband said that if she had an abortion, he would divorce her. She continued with her
pregnancy. She said that around the fourth month of her pregnancy, one day she got so sick that she could not work or talk, so her co-workers took her to the factory clinic.

The doctor of the factory clinic said that she was suffering from high blood pressure. He advised her to take a rest during work, adding that she should not work for long hours needed to sleep well. On that day, she wanted to have some time off, but her supervisor refused her request, as a large order of shirts had to be finished in 14 days. She needed to complete 100 shirts per hour, for 12 hours a day, until the order was complete. In her seventh month, she informed her line manager that she would apply for maternity leave, as her blood pressure was always high and she always felt sick. Her supervisor suggested that she leave the job and come back to work after the delivery.

This job is her only source of income. She needed the money, so she spent sleepless nights worrying:

This work created an opportunity for me to earn money. I could support my family financially but now I am pregnant. When we get pregnant we don’t disclose it to our supervisors. We try to keep it secret as long as we can because if we become slow to meet our production quota due to pregnancy we will lose our job. We become more vulnerable physically and mentally due to all these types of stress.

Morium’s story

Morium is a 28-year-old woman who developed a hypertensive disorder during pregnancy. She always experienced headaches, nausea and dizziness. She did not go to a doctor, as she believed that these symptoms were normal during pregnancy. After a few weeks, she started to feel sicker and could not sit to work or sleep well. She then went to the factory clinic to see the nurse. The nurse informed her that her blood pressure was high, advising her not to work and to go home. After three days, she visited the clinic again and she was
able to see the factory doctor. The doctor advised her not to eat salt or beef and that she needed to sleep more. The doctor recommended that she take medical leave for three days, with some medication. She was granted sick leave for just one day. After two days, she returned to her work but she always felt unwell. In the fifth month of her pregnancy, her legs and face became swollen (caused by oedema). She constantly felt tired, short of breath, and suffered pain in her shoulders. Still, she wanted to continue in her job for as long as possible. At the end of the data-gathering process, she had decided to apply for maternity leave. If the leave was granted with payment, she would continue to work after delivery; if not, she would leave the job and look for a new job when the child was 6 months old.

9.4 Living Environment: Opportunities to Rest at Home and at Work

The houses of the female workers were observed in two study areas. After walking through a narrow lane, the researcher entered a one-level brick and tin building with 20 single rooms (one family, sometimes two persons in each room; the size of the room was 30–40 square feet). There was one shared kitchen, with some stoves for cooking (Figure 9.1), and four toilets for 20 families.

The furniture included a double–bed, which occupied most of the space in the room. Clothes were hung on a rope; cooking utensils were piled under the beds. The rooms did not have a window, only a door to let in air and light. The female garment workers started their day at around 4:00 am, to avoid queues in the kitchen and toilets. They needed to finish cooking, cleaning, and other household chores before they went to the factory. The women’s living environment also worsened their health condition, because shared accommodation did not allow them to get enough sleep or rest at home. Further, they still had to cook and clean and fulfill what are seen as the responsibilities of a wife.
In this regard, one female worker said:

My doctor said to me to sleep more. How could I sleep more? I work for long hours and have little time to prepare meals. I return home tired every day. I just eat rice with some vegetables, dal and salt before I go to sleep. I cook fish and meat sometimes but that I keep for my husband.

They work hard at home in the morning and walk to the factory as fast as they can to enter the factory by 8:00 am. They get a one-hour break for lunch. The pregnant workers consume food very quickly to enable them to take a small nap during the lunch break (Figure 9.2) to energize themselves for the rest of the workday. Reflecting on the experience of pregnancy and work, another pregnant worker noted:

Pregnancy is the most joyful event for a woman. [But] if you work as a factory worker, it will be the most painful event of your life. Working in one position for long hours, running to meet the production target and having no guarantee to have maternity leave with payment makes us sick. If you are pregnant you may have to lose your job. Supervisors will not be happy with you as you will be slow to meet the daily quota. You will be encouraged to leave the job. You will not receive support from your boss to continue the job as a pregnant woman. The doctor will advise you to take rest but you will not have an opportunity to take rest due to work at home and in the workplace.
Figure 9.1: Long queue in the kitchen for cooking

Figure 9.2: Little rest at work during lunch
9.5 Factors that Influence the Development of Health Problems during Pregnancy

The factory doctors reported that work stress and prolonged working hours contribute to hypertensive disorders and diabetes among the pregnant workers. Others factors such as biological conditions and lifestyle also contribute to making women sick:

The female garment employees work for long hours and they always need to work to meet their daily production quota. When women get pregnant it is difficult for them to meet the production quota. They always feel stress because if they cannot meet the production quota they will lose their job, which definitely contributes to increasing their blood pressure.

Another doctor said:

If you look at their lifestyle, they do not have time to rest. They work in the factory 10–12 hours per day, 6 days in a week. Most of the female workers develop hypertensive disorders during pregnancy. Apart from hypertensive disorders, they also suffer from other health problems such as malnutrition and anaemia. They couldn’t eat well due to poverty. We always advise them to eat an egg and not to take any extra salt with rice. They cannot continue their job during pregnancy because this is a physically intensive job. They take a break for one to two years after the delivery, and then when the child grows up they again start a new job with a new factory.

9.6 Business, Profit, and Workers’ Health

A discussion was held with the employers of the RMG industry to explore their views on health problems, including hypertensive disorders, among the pregnant workers. They reported that pregnancy makes the women more vulnerable in this sector due to the nature of the job. They stated that they always try to allow more breaks for pregnant women, but they cannot always ensure maternity leave with payment. In this regard, one supervisor said:
We do business. We need to ensure profit. If we cannot make profit, we will not be able to pay the workers. We have hundreds of workers working on the production floor. If we allow maternity leave with payment, hundreds of them will get pregnant. How will the factory run? It does not mean that we do not provide maternity leave with payment. We approve maternity leave with payment. [But] in some cases we also cannot approve leave with payment. Because many of these women, they go to their village for delivery. They take the money from us but they do not return to work after their leave. In these cases we encourage women to leave the job but if they want to return to their work after delivery, we accept them again in the workplace.

Interviews with government officials from the Ministry of Labour and Employment revealed that they do not have enough reliable data about the health and injury-related problems of the factory workers, because they have a shortage of skilled staff to collect data on OHS issues. They also indicated that the factories do not report pregnancy or pregnancy-related health problems to them, for fear of being followed up by government factory inspectors.

In this regard, one respondent said:

When our factory inspectors visit factories, they always request the factory management to assign light work to the pregnant workers. They also instruct them to approve maternity leave with payment. According to the Maternity Act of Bangladesh, if any worker is found to be pregnant, the factory should report that to us, but the factories do not report because they need to approve their maternity leave with payment. As they do not pay them, so they do not report to us about the pregnancy. We cannot tell you about the health problems of these women. We lack reliable data.

Another respondent raised the important challenge of non-compliance with existing legislation and the concerns expressed by the women about this lack of compliance:

We receive many complaints of disputes about maternity benefit. The factories do not want to approve maternity leave with payment for pregnant women. According
to the law, they need to pay 60 days’ leave before delivery and the rest of the leave after
delivery. In most of the cases they approve leave without payment. In some cases
they approve leave with maternity benefits for 60 days, but they do not pay for the
other 60 days.

9.7 Conclusion

Chapters Six, Seven and Eight have explored everyday problems of health, safety, stress, and
mental wellbeing of the female workers on the factory floor and at home, which include:
headaches, pains in the body, injuries from needles and struggles at home after the end of a
long working days to meet family expectations. This chapter has presented the health and safety
issues of pregnant workers who work under very stressful conditions. The pregnant workers
constantly suffer from fear of losing their jobs, for not being able to meet daily production
quotas due to pregnancy. They also have the stress of receiving no - or very limited - maternity
benefits. These pregnant workers struggle at home to do their household chores as wives.

Factories are providing health services, including ante-natal care, but pregnant workers
do not visit these clinics for fear of their pregnancy being revealed. The factory doctors
indicated that the stress and monotony of the work may lead to hypertensive disorders and
diabetes during pregnancy.

The supervisors of the factories indicated that the pregnant workers are assigned to do
light work during pregnancy, with regular breaks, but the workers do not get the maternity leave
with benefits that they are entitled to. Conversely, government officials indicate that they
receive complaints from workers regarding disputes about maternity benefits, but they lack
data about the health and safety problems of the workers. Moreover, the weak government
enforcement of law has raised concerns about the capacity of the state to address the issue. The
next chapter will discuss system-related challenges in ensuring workplace health and safety.
CHAPTER 10

Occupational Health and Safety System-Related Capacity and Challenges

10.1 Introduction

Until the industrial incident of Rana Plaza in 2013, we never thought about the workers’ health and safety issues as seriously as we are thinking now. Donors want data on the health problems of the workers. How will we get data about the health and safety problem of the workers when you do not have a good OHS service? How can we provide a good OHS services when we do not have enough trained manpower and other resources to monitor factories? The owner does not provide us data. Everyone has to understand the country context. We do not have Aladdin’s lamp to change the situation (Voice of government official).

As discussed in Chapter Four in particular, the global strategy on occupational health for all has 10 objectives, of which strengthening the OHS services by developing support services. This is the focus in this chapter. Since the Rana Plaza incident, the government of Bangladesh has made progress in strengthening OHS services to make the workplace safer in this industry. However, despite improvements in building codes and the enhanced capacity of the DIFE, other serious issues remain a challenge for OHS services. This chapter provides an overview of the current OHS services in Bangladesh, in line with the objectives of the WHO, in terms of development of human resources, development of information management services for data collection and analysis, sharing information, and finally, developing collaboration among different stakeholders. It will also show how contextual factors and system challenges create barriers to ensuring a healthy
and safe workplace in the RMG industry. Data presented in this chapter were collected through KIIIs with different stakeholders, as described in Chapter Five.

10.2 Institutional, Organizational, and Individual Capabilities

The respondents described the establishment of the DIFE in the 1970s under the Ministry of Labour and Employment. It was known as the Labour Department. At that time, it was divided into three departments: Labour, Inspection for Factories, and Establishments and Registration of Trade Unions. The Department of Inspections began to work separately as a directorate in the same year, but the other two departments were subsequently combined. The Directorate of Inspections was headed by a Chief Inspector of Factories and Establishments and a Deputy Chief Inspector under the Chief Inspector. The directorate covered the entire country, with a total of 250300 government officials as of 2014. The department increased the number of staff following the industrial incident of Rana Plaza in 2013:

After the industrial incident of Rana Plaza, the government of Bangladesh deeply realized that workers’ safety, health, rights and wellbeing are very important for the country. The government took the initiative to upgrade this department. An additional secretary was posted in DIFE in 2014 as Inspector General to strengthen the directorate. Now the Dhaka district office is headed by the Deputy Inspector General (DIG); five Assistant Inspectors General (AIGs) are working under the DIG and the labour inspectors are working under the supervision of AIG. The total number of labour inspectors in Dhaka DIFE is now 44.

10.2.1 Human resources

Despite considerable progress since 2014, there is still a shortage of qualified staff in the DIFE, especially doctors. The study participants mentioned that five doctors should be posted in the Dhaka District office but there is currently no doctor in the office to monitor the health, hygiene and maternity benefits of female workers. It was mentioned that doctors are not
interested in working in this sector, because there are no career prospects in the DIFE. Some doctors are posted to the DIFE, but through lobbying, they usually go to work with the Ministry of Health, where there is a better career path. One respondent said:

The health-related issues and problems need to be reported by the doctors. There is no doctor currently working with the DIFE in the Dhaka District office. We are currently collecting data about the health, injury and safety-related issues, with the help of the factory inspectors. These inspectors are from academic backgrounds of science, like zoology, chemistry and botany. They do not understand deeply the issues of health and safety of the workers.

There is also a shortage of suitably qualified engineers. The respondents further indicated that following the Rana Plaza incident, more emphasis was given to the building-structure and safety issues. The engineering section is responsible for supervising the safety of buildings. However, the Dhaka District office does not have an engineer with the appropriate engineering qualifications to assess structural safety. One respondent said:

Most of the engineers who are working with the safety section have an educational background of electrical or chemical engineering. The building structure issues will be better understood by a civil engineer. But we do not have any engineer with civil engineering background, which is a big challenge.

10.2.2 Training and skill of staff

The respondent reported that the level of training and skills of the key staff regarding OHS, Monitoring and Evaluation (M&E), and data management varies substantially. They further reported that there is a lack of courses on OHS issues, labour law, and M&E programs at tertiary education institutions in Bangladesh. Training related to OHS is generally taken by the staff through workshops and online short courses. Some of the staff at the national and district level have received basic training in OHS through the online training course, but their analytic skills are reported by the government staff to be very weak. There was an
acknowledgment of the need for more training at the individual level on OHS, labour law, and factory monitoring, in order to collect and analyze data. The following responses from a government official demonstrate this need:

Our training is not adequate. We need more training on OHS. As we are moving towards an industrialized country slowly, the occupational health problem will be a big challenge for us in the future. We need skilled and trained staff for OHS. Currently we are receiving six-month distance courses with the help of ILO on OHS. The ILO also provides a two-month course on labour inspection. It is helping to improve our skills. We need more training on OHS.

10.2.3 Shortage of equipment

The study participants reported that insufficient equipment was available at all levels, which is a challenge for assessing the health and safety-related problems of the RMG industry. Respondents reported that the shortage of vehicles to visit the widely scattered factories was a big problem in the past. Now, factory inspectors have motorbikes to visit factories. The DIFE staff has laptops, computers and Wi-Fi connection facilities in their office. However, the shortage of equipment still remains a challenge. One respondent described the equipment problem:

We did not have enough vehicles to visit the factory regularly. Now we have solved the vehicle problem. We still have a shortage of other equipment such as light meters, sound meters, helmets, and boots. If we buy the light meters and sound meters there will be need to train the staff in how to use them. We do not have enough equipment for all staff. We use them by rotation, which is a problem in ensuring a quality visit to the factory.
10.3 Surveillance and the National Reporting System

10.3.1 Factory monitoring tools

Although data is necessary for effective policy development, there seems to be very little reliable data available for OHS in Bangladesh. The study participants reported that before the Rana Plaza incident, there was no standardized factory, monitoring tool to collect data on the occupational health problems of the workers. Since there was no tool for factory monitoring, the health inspector commonly collected data in notebooks. After the Rana Plaza incident, a factory-monitoring checklist was developed and data is now collected by the factory inspectors via such a checklist. However, the study participants reported that the current monitoring tool (hard-copy checklists, which then need to be entered into the computer) is not appropriate for the Bangladeshi context. The MOLE adopted the tool due to pressure from overseas donors. Furthermore, the respondents believed that more emphasis had been given to collecting data on building structural safety issues than to other safety and health issues, without considering the country’s context. One respondent further said:

We developed a checklist with the help of our development partners. The checklists have 125 questions. We collect data on the building structure, recruitment, child labour, and the maternity benefits. We do not collect data [i.e. the checklist does not include data] on occupational health-and safety-related disease. As we have a serious shortage of manpower, our inspector cannot visit the factories regularly to collect data. It takes two to three days to complete the checklist.

10.3.2 Data collection and reporting

The study participants talked about the need for data on health and safety problems of the workers. There are no standard practices identified, by which to collect, store, and report data. One participant described the data collection situation:
You’ll find that the factory register book is blank. They have a register book but they do not give us information. The factories do not report to us about the health and safety problems of their workers.

The DIFE also cannot collect data to record the health and safety problems of the workers, because they do not have enough staff to do this. After the Rana Plaza incident, the DIFE recruited new staff and they will recruit more staff in the future to improve factory monitoring visits. Interviewees reported potential health problems in workers, based on their own experiences, but without data, it is difficult to record injuries and other health issues that are faced by workers. In this regard, one respondent said: ‘I visited a garment factory many times. I had difficulty in breathing due to inhaling fabric dust. We need reliable data, but we do not have data on the health problems of the workers in our hand now’.

The respondents also indicated that there is no national system for reporting, assessing, and sharing the data on OHS problems. One respondent explained:

We are collecting data through monitoring visits. But there is not much sharing of this data at the higher level to make policy, strategy, and intervention to address the health problems of the workers.

10.4 Competing Realities in Inspection and Enforcement

10.4.1 Government officials

The government officials in the DIFE wanted to enforce their own regulations but felt powerless to do so, as the DIFE work under the administrative control of the Ministry of Labour and Employment. The Department does not have direct power to take any action against any factory in disputes about labour rights or the protection of the OHS of workers. They can only file a case with the labour court. The informants explained that the labour
court is overloaded with cases, and that the court is usually very lenient towards businesses.

One government official indicated:

....If we come to know about the health problems of the workers, we request the owner to pay the treatment cost. If they do not listen to us, we can only file a case to the labour court. We do not have enough administrative power to punish the owner instantly.

The respondents reported that factory managers readily accept referral to court, knowing that it will take a long time, or that the matter will never be resolved. A respondent further added that even if the matter is dealt with by the court and the business owner is found guilty, the monetary penalties are very low. The highest penalty is 25000 BDT (US$312) and hence monetary penalties do not act as an effective incentive to comply with the law.

10.4.2 Factory managers

Factory managers seemed reluctant to keep adequate records. When asked about the problems of health and safety issues encountered by the female workers in this industry, they indicated that they did not have data about the health problems of the workers. They reported that there are doctors in the factory to provide treatment to the workers when they are sick. They did not feel a need to keep records about the health problems of the workers. They further reported that if they were to keep records of the health problems of the workers, the government would insist that they compensate the workers for their health problems.

One of the employers explained about the budget constraint they faced in investing in workers’ health and safety issues:

If the price of a shirt is 100 taka, we spend 13 taka for the labour cost; the rest of the cost is for accessories. We import all the accessories from other countries. If we could produce the accessories locally, we could save money. We could spend more
money on the workers’ health and safety issues. We try to make a profit from this 13 taka because the rest of the costs are fixed.

10.4.3 Factory doctors

The factory doctors are aware of the health problems of the workers and the need for information in order to provide health services for them, but feel powerless to do anything about the situation. The doctors have not been asked to collect or forward data about the health problems of the workers that they see, despite a legislative requirement to do so.

All doctors expressed their concerns about health issues for the workers, with one specifically expressing concern about the long-term health consequences of working in the industry:

Most of the women leave the factory job after the age of 35. They cannot continue their work in this sector after this age because of the hard work and the working environment. They constantly inhale cloth dust. You will hardly find a woman who is forty years old or above working in this sector. The government needs to develop a strategy for the health problems of the workers. Otherwise, this population will be a huge burden of disease for the country in the future.

10.4.4 Representatives from BGMEA

The respondent from the BGMEA said that by law, OHS issues must be addressed collaboratively by government officials, employers and workers, but factory management do not involve the workers so as to ensure the delivery of effective OHS services, suggesting that the factory managers (as agents of the industry) do not believe that the workers have responsibility, rights or a role in ensuring OHS services at work.
In this regard one respondent from the BGMEA said:

Some factories involve the workers to make them aware about the health and safety issues at work, but most factories do not involve the workers. Currently millions of workers are working in the RMG sector and the number of registered export factories is about 5,000. The number of workers will increase in the future, as the poor women have very limited options to participate in paid work, except for factory work. We need to work collaboratively with government, workers, and factory owners to ensure the OSH services.

Further, this important industry body reported the need for improved government capacity to ensure that workers are protected through provision of sufficient government OHS services:

The government does not have enough capacity to monitor the working environment of the factories with only a hundred or so labour inspectors. If the government cannot build a good factory-inspection system, the employers will never feel accountability to ensure the workers’ health issues. Instead of government, the owners feel more accountability to the buyers because if the buyers are not happy, they will lose the business contract. They always try to make the buyers happy and not the government.

10.5 Conclusion

This chapter provides the challenges and barriers that face the DIFE in the provision of occupational health services in the RMG sector in Bangladesh. The findings present three issues: i) the institutional, organizational and individual capabilities; ii) surveillance and the national reporting system; and, iii) competing realities in inspection and enforcement.

The next chapter will discuss the research findings that were presented in Chapters Six to Ten, by comparing them with other published research, identifying the implications of these findings for factory workers’ health and safety, followed by recommendations for future interventions and policy.
CHAPTER 11

Discussion and Recommendations

11.1 Introduction

This chapter discusses the study findings and compares them with existing knowledge in this field. It also discusses the implications of the findings, examines the findings at different levels of the OHS system, and provides future recommendations for policy and practice. Parts of this chapter have previously been published as discussion within individual papers. However, to provide a coherent discussion that allows for synthesis across all research findings, the organization of this chapter is based on the findings chapters of this research.

11.2 Summary of Main Findings

11.2.1 Rethinking on physical health and mental wellbeing

This research explored female workers’ health problems from the perspective of the workers and health care providers by way of interviews, FGDs and observations in the RMG factories in Bangladesh. The workers in this study shared their personal experiences of health problems after starting work in the RMG factory. They identified that participation in paid work has made them more vulnerable to various types of physical illness. Several studies found similar findings in Asian countries: (1) the health of garment workers is not protected in this sector, and (2) physical health problems, including headaches, eye pain, musculoskeletal pain, and fatigue (Ashraf 2017; Attanapola 2004; Kim and Kang 2013; Nathan et al. 2016; Prentice and De Neve 2017).
This research has further revealed that garment work is so physically demanding that women cannot work in the sector for more than five to 10 years. The factory doctors in the study setting also described how long working hours in the same position create a variety of health problems among the female workers. The workers and factory doctors both acknowledged that the nature of the job and work conditions mean that a long career in the industry was not possible. These findings are consistent with the work of other researchers in Bangladesh and India, who found that the highest proportion of female workers quits factory work before they reach 40 (Absar 2002; Mezzadri and Srivastava 2015; Zohir 1998; Zohir and Paul 1996).

The workers reported that getting sick and having an injury is an everyday occurrence in their lives. They do not even go to the factory clinic for treatment; rather, they buy or access Panadol, so as to treat themselves. The doctors from the factory clinics confirmed the health problems and treatment procedures reported by the female workers. As such, the factories provide very limited health services to treat the workers, and this is consistent with the findings of other studies in Sri Lanka and Bangladesh (Ashraf 2017; Attanapola 2004; Ruwanpura 2017).

The mental health consequences for women working in this industry were a prominent and new finding of this research. Mental health and wellbeing for these women appear to be related to a range of issues, including the physically demanding working hours and job activities, the pressure to meet production quotas, the constant threat of losing their jobs, the violent culture in the workplace, and the dual work burden (Tijdens et al. 2015).

The collapse of Rana Plaza in Bangladesh in 2013, causing the deaths of 1136 workers and injuries to thousands of people, has drawn the world’s attention to the tragedy of unsafe workplaces (Ansary and Barua 2015). Following this event, measures have been taken to increase the safety of buildings used in the RMG industry in Bangladesh (ILO 2014b). According to a report by the ILO, following this industrial accident, the working environment
has improved and an accord has been made by the government of Bangladesh to minimize the risk of future fatal factory fires and building collapses (About the Accord 2017; ILO 2014a). However, this agreement has done little to address the issue of violence towards the female workforce who are the backbone of the industry (HRW 2015a).

Violence against women in the workplace in this study setting appears common. Women in the study shared their experiences of physical abuse, such as slapping, pinching, pushing, and verbal abuse, such as yelling and other forms of bullying. These included the withholding of payment and constant threats of loss of employment. Furthermore, the female workers expressed feelings of being powerless to express their complaints, due to fear of losing their jobs and becoming victims of revenge by their supervisors. Women do not have options to complain against supervisors, other than by compromising by enduring violent acts against them, as a way of retaining their job. The findings of this research are similar to other studies conducted in Asian countries’ garment industries (Fair Wear Foundation 2013; HRW 2015b; Naved et al. 2017). Further, these have indicated a lack of professional services to hear the concerns about issues relating to the violence that female workers experience in the RMG factories, which only exacerbate their feelings of helplessness and despair.

Bangladesh is a patriarchal society and from this research, it appears that this patriarchal attitude still dominates in the world of work where women are treated as subordinates (Absar 2002; Kabeer 2003; Kabeer and Mahmud 2004a, 2004b). Supervisors justified abusive behaviour, describing the women as uncooperative. For example, it was deemed acceptable to the factory managers that their supervisors could shout and yell to control the women, if the women did not listen to them. Using violent acts in the factories to discipline the women is deeply rooted in gender ideologies of male power, as women are perceived to be more obedient, manageable, and devoted, compared to men (Das, Amin, Johnson and Hossain 2008;
Naved et al. 2017; Siddiqi 2003). However, violence in the workplace can be further attributed to the disempowerment of women, due to their class (other than their gender), as they are perceived by the supervisors as uneducated and poor women.

Violence against female workers, while not acceptable to the women, was not considered a health and safety issue by all of the stakeholders (i.e. supervisors, government officials and representatives from the BGMEA). Significantly, another important aspect that this study revealed was that when various stakeholders were considering workplace health and safety, they placed more emphasis on improving building safety issues, such as good electric wiring, setting fire alarms, and establishing fire protection doors. Furthermore, the pressure of production targets contributes to an abusive working environment, and the government officials accept that when the supervisors cannot cope with this stress, they may transfer their aggression onto the female workers. Thus, for the male stakeholders, violence at work appears to be an acceptable and appropriate measure as a means of ensuring that unrealistic daily production quotas are met (Ashraf 2017).

According to the Universal Declaration of Human Rights, every worker has a right to work in a violence- and discrimination-free environment (UNDP 1948). Bangladesh has signed several relevant international covenants and conventions: the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the International Convention on the Elimination of Discrimination against Women (CEDAW). It is surely the duty of the country to ensure a violence-free working environment for these women (HRW 2015a).
This research describes the lived experience of pregnant workers in the RMG industry in Bangladesh, based on their own narratives. The findings of this study highlight the broader social and economic context of illness as a means of extending the understanding of women’s health beyond conventional ways of exploring this issue. The pregnant workers’ working conditions, their position in the factory, and their living environment all contribute to their health problems and illness during pregnancy. The results of the study are similar to other studies that have investigated the links between the nature of jobs, the social class of female workers, and stress (Eskenazi, Fenster and Sidney 1991; Landsbergis and Hatch 1996).

This research has revealed that factory work in this industry is particularly stressful for pregnant workers, due to the constant fear of dismissal, stress related to meeting production quotas, as well as significant family and societal demands on their time at home that make them unable to rest. It further identifies that the physical demands of their jobs, for instance, working in one position or standing for long periods of time with limited or no breaks, are in particular physical stressors for this sub-population. Some studies have found that such physically demanding work with prolonged standing and long working hours can increase catecholamine levels, and patients who have high levels of catecholamine suffer from pre-eclampsia or hypertensive disorder (Haelterman, Marcoux, Croteau and Dramaix 2007; Mozurkewich, Luke, Avni and Wolf 2000). Though the workers in this study had no formal diagnosis of high levels of catecholamine, their working conditions paralleled the conditions of other studies and factory doctors’ reports, which indicated that pregnant factory workers commonly suffered from health problems such as hypertension.

Further to the actual physical and mental stressors associated with working in this industry, this research revealed problems related to access to health services throughout women’s pregnancies. Antenatal care is identified as one of the four pillars under the safe motherhood initiative. Likewise, seeking care during pregnancy and delivery is crucial to protecting women from complications related to pregnancy and childbirth (WHO 1996).

Other studies have found that inadequate provision of antenatal care is one of the risk factors for maternal morbidity and mortality (Doctor et al. 2012; Rai, Singh and Kumar 2016; Singh 2016). This study has clearly identified a deficiency in accessing quality antenatal care for pregnant workers. While there were health services available within the factories (half-time doctors and full-time nurses), pregnant workers participating in this research were reluctant to seek ANC services from such services for fear of losing their jobs. Further, the women work very long hours (10-12 hours per day and 6 days, sometimes 7 days per week) and have little time or cannot afford to access external (to the factory) health services. Finally, the findings of the current research are similar to those of other studies conducted in Sri Lanka (Ruwanpura 2017).

Another key finding of this study was the constant stress related to meeting production quotas and hence, making a sufficient income. This is particularly problematic for the pregnant women, as they were unable to rest in order to meet production quotas and were constantly in fear of losing their jobs, if they were unable to meet quotas due to their pregnancy. The women have low decision-making power in their working life, and they did not receive institutional support. All of these factors are interconnected with the health and illness of pregnant workers. The findings of this research parallels the job-stress model, which focuses on the work environment, including job demands or workload, and the scope of decision-making for a worker in performing her work (Karasek, Baker, Marxer, Ahlbom and Theorell 1981).
This study has highlighted problems in accessing the requisite health services, as well as the scarcity of institutional support - including a lack of access to formal maternity leave, lack of job-task modifications during pregnancy (e.g. light duties) and a lack of increased breaks and time off for health care or rest. Government informants acknowledged this and their limitations in responding to this problem, while factory managers made conflicting claims that on the one hand, they did provide these supports, while on the other hand, acknowledging that the pressures of meeting quotas and ensuring profits dominated their management of their workforce.

11.2.3 The Production system, Work, and Stress

The experiences of female workers explored in this study reveal the importance of non-physical illnesses endured by women who frequently mentioned stress, anxiety, and helplessness in regard to their separation from their children, plus a lack of support in coping with this separation. This serves as a timely reminder of the World Health Organization’s definition of health as modified in 1948 to include ‘a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity’ (WHO 1995a).

Doctors have confirmed that they do not have enough time or funds to provide a quality service, particularly in terms of listening to the extent of problems expressed. The doctors can only treat the female workers’ minor physical health problems and injuries with very limited resources. Another limitation identified was the lack of access to and the lack of referral to pathways to government hospitals, where costs were more affordable. Both the employers and the government officials acknowledged these problems of resourcing but neither was able to provide a clear solution. Further, the experience of the study participants raises questions

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about the capacity of mental health services within Bangladesh’s broader health system. Studies have found that more women suffer from depression than men in Bangladesh and the country has many challenges, which include limited public mental health facilities, lack of a skilled workforce, limited financial resources and reluctance of individuals to share their mental health concerns (Hossain, Ahmed, Chowdhury, Niessen and Alam 2014; Islam and Biswas 2015).

This research has identified several interlinked factors that influence the health and mental wellbeing of female garment workers, including factors from the individual level to the global level, including the work environment and health system factors (Heise 1998). While global level (Figure 11.1) factors were not explored in this research, they have been included in the figure below to provide a more complete perspective of the determining factors and their relationships.
Discussions with the different stakeholders revealed the need for more collaborative work and relationship development among government, buyers, and factory owners to address the health problems of the female workers. The findings indicate willingness by the industry association and government to pursue improved referral pathways with government hospitals, so as to increase access to treatment, albeit with limited mental health services.

However, other solutions also need to be considered to prevent mental health problems, such as creating low-cost housing and childcare facilities, so that the women can bring their children when they migrate to work in the RMG industry. Further, pointing to the need for
collaboration, this study revealed that the attitude and behavior of factory health care providers and employers exacerbate the mental health wellbeing issues expressed by the female workers. It is evident from the narratives of the female workers that the non-empathetic behaviour of the employers and health-care providers contributes to women’s feelings of helplessness.

At a broader level, the unbalanced influence of multinational corporations (MNCs) in manufacturing with the support of the WTO, compared with that of human-rights-based organizations (ILO, UN agencies) contribute to the production pressures (McMichael 2011; Watkins and Fowler 2002). These MNCs prefer lower-cost female workers because they are submissive and unlikely to resist working under adverse working conditions (Elson and Pearson 1981). The government appears to be trying to fulfill the demands of the MNCs, but is neglecting the rights of workers to a safe and supportive workplace. The powerful MNCs have a strong interest in the continuation of these types of work conditions. The challenge will be for the government to adopt and enforce policies that address the issue of women’s health in the workplace, including in this important sector, where gender divisions of labour are so prominent.

11.2.4 OHS system and its capacity

This research provides evidence via the perspective of different stakeholders to describe the situation and the challenges in establishing a good OHS service in Bangladesh. The research has revealed critical perspectives on the organizational situation and the system’s capacities to tackle the OHS problems in the RMG industry in Bangladesh.

The study identifies the significant human resource challenge for factory monitoring and supervision in this industry. Increasing human resources to strengthen factory monitoring visits will help officials to carry out quality factory visits, but this research highlights the unmet need for qualified staff in this field. In other words, despite the significant increase in
shortage of properly qualified professional staff limits the effectiveness of the government’s monitoring efforts. Another important aspect is limited facilities for on-the-job training and mentoring, which is critical for strengthening capacity in ensuring a good working environment.

Moreover, there is a shortage of even basic equipment for monitoring the health and safety of the workers. Thus, the inspectorate is unable to carry out effective monitoring of the health and safety of the workers in the RMG. The results of this research identify areas for building skills and capabilities. Its findings are similar to those of another from a low-income setting, where the efficient use of limited resources to attain health goals was identified as a challenge (Bradley, Taylor and Cuellar 2015).

Capacity is a key component of strengthening OHS systems, and data is a critical element in OHS management (Car and Atun 2017). It is no surprise then that the findings indicate that the OHS surveillance and national reporting system is not functioning well. The quality and adequacy of data is a challenge. To make evidence-based policy, the government needs sufficient and accurate data (Sutcliffe 2005). The system for collecting and managing data is weak, relying on the cooperation of the factory owners, but the government staff employed to gather and manage the data are not well enough trained or equipped. These findings are consistent with another study conducted in Bangladesh (Rodríguez et al. 2017).

Finally, the findings of this research highlighted the competing realities among the government, employers, and doctors in ensuring the health and safety of the workers. Findings presented here clearly indicate that government officials lack power to enforce the law. The employers, for their part, insist that they do not have enough profit to invest in the health and safety of their workers. They are caught in a squeeze between overseas buyers who are
unwilling to pay more for the garments, and the cost of labour. The factory doctors, meanwhile, can see the health problem that is emerging for the whole nation, but feel powerless to do anything about it. Their first loyalty is to the employer who pays their salary, not to the workers.

### 11.3 Recommendations

Moving forward, based on the findings of this research, the following steps are recommended:

#### 11.3.1 Recommendations to address the health and safety of workers

First, study findings should be communicated to key stakeholders, including the Ministry of Health, Ministry of Women and Children Affairs, Ministry of Labour and Employment, the BGMEA, factory owners, and development partners, to facilitate dialogue for developing interventions to create awareness about and prevention of the health risks for female workers in this sector.

More broadly, the results suggest that coordinated action and commitment needs to be taken by key stakeholders, so as to create an enabling environment and gender-sensitive policies for working women, so that they can participate in paid work and be treated fairly at work. Bangladesh has made significant advances in gender equity through strong national policy, but this now needs to be strengthened for working women as a growing and vital sub-population.

Second, although globalization has brought economic benefits to the whole nation, as well as to these women, this research indicates that it has come at a cost to their physical health and mental wellbeing, with specific problems expressed by the female workers associated with violence at work and stress from being away from their children.
The government, international trade community, and development organizations all need to cooperate in regulating the labour market and providing health and other support services which can contribute to the creation of a healthy and safe working and living environment for this important labour force.

Essential maternal care comprises antenatal, delivery, and postnatal care to prevent maternal morbidity and deaths (Victora et al. 2016). Women in this study did not attempt access to factory health services for antenatal care for fear of losing their job and they indicated difficulties in accessing ANC services from government hospitals. This is a serious problem that requires an awareness-raising intervention targeting women, their husbands and workplace supervisors about the importance of ANC to pregnancy outcomes. As factory clinics are an existing and easy to access service for these women, this could be the focus for this type of program, however issues of confidentiality and independence of factory health staff need to be resolved.

Also, the BGMEA, factory owners, the government, and the buyers need to work together to improve processes to ensure that maternity benefits are provided to those who are eligible to enhance the job security of pregnant workers. These findings suggest a need for better implementation of the national maternity leave policy for pregnant workers in order to ensure their maternal health and job security. Further, changes in work organizations need to be considered by the industry to help to reduce the physical job stress in pregnant working women by altering work hours, improving rest opportunities, and rotating job tasks.

Finally, although Bangladesh is emerging as a low-middle-income country, rural poverty is still a major problem and rural women lack opportunities for education, independence, and access to property (Karim et al. 2016; Madhani, Tompkins, Jack and Fisher 2015; WB 2015). More interventions for women’s social development are needed to build skills and capacity for
women, so that they can advance to more rewarding positions in industrial enterprises. All of these policy changes will also require the participation of female workers in dialogue with policy makers for policy formulation that meets their needs.

11.3.2 Recommendations to build OHS system capacity

The findings suggest that the government recognizes the challenges in ensuring the safety and health of workers. The DIFE, which looks into the health, safety, and welfare of female workers in the RMG industry, has been set up by the Ministry of Labour and Employment, with assistance from some concerned international organizations. As long as the DIFE faces these multiple challenges and barriers, it will be unable to ensure a better working environment to meet the health and safety needs of female workers in the RMG. More collaboration and partnership with the development partners targeting individual capacity through training will enable the capacity of the DIFE.

To a degree, the doctors in the factories understand the health problems that are developing among workers, but they are not part of the reporting system, despite legislative requirements to collect and report data. The factory doctors should be part of the government surveillance system to provide necessary data on OHS problems to report nationally.

The DIFE also has no power to enforce the laws by taking action against the factory owners when they break the law. It can only refer a case to the Labour Court, which is itself weak. The financial penalties for non-compliance are very low. Increasing the administration authority and improving penalty options of the DIFE will empower them to make the industry more responsible to ensure OHS services. The shift of power towards the DIFE taking direct enforcement action is clearly necessary. The situation described in this study suggests that a significant organizational culture change is required.
In addition, the country needs to further build capacity to monitor the working environment and related health problems of the workers. The government needs to work with factory owners, international organizations, trade agencies and donors to develop a good monitoring system to analyze the key factors of occupational health problems in order to address the health and safety issues identified.

11.3.3 Recommendation for global buyers

This research identifies the complex problem of a buyer-driven production system in setting daily production quotas. This system leads to downward pressure on the supervisors and then the workers to meet the unrealistic production demands. The problem with a buyer-driven production system is that it creates stress, which affects the health and wellbeing of the workers in this industry. MNCs, factory owners, and the government need to work together to create a flexible and reasonable production system that can reduce the pressure of these unrealistic daily quotas. Thus, strategies such as conducting sessions among workers, employers, and health care providers to raise awareness of mental health and wellbeing issues, and developing the skills and systems necessary to identify and respond to them are crucial.

11.4 Conclusion

This chapter has discussed the implications of the research’s findings regarding health and safety issues in the RMG industry in Bangladesh and in other similar settings. It has also discussed the health problems of the female workers, violence, stress, and how these affect the mental wellbeing of the workers in Bangladesh, along with their implications in the development of interventions and strategies.
Moreover, this chapter has discussed the health and stress of the pregnant workers, as well as the OHS system-related capacity and challenges of the government. It has also made key recommendations for future interventions, policies, and practices. The next chapter concludes this thesis by way of a summary of the research, followed by its significance and recommendations for future research.
CHAPTER 12

Conclusions

12.1 Introduction

This research has explored the health and safety problems of female RMG workers in Bangladesh. It has sought to broaden understanding of how the health and wellbeing issues of the female workers are shaped not just by the work environment and type of work, but also by the gender expectations governing the lives of women both at work and in the home. The narrative of the female workers’ own understanding of their health and safety problems is powerful. It presents a holistic picture of their struggle for economic security in a work and family environment that is detrimental to their long-term physical and mental health and wellbeing, and is also a threat to the sustainability of their productive life. This chapter provides a summary of the research findings synthesized from all chapters. The chapter then highlights the strengths, limitations and the significance of the research with recommendations for future research.

12.2 Summary of Main Findings

The research thesis was organized as 12 chapters in two parts. Part I provided the introduction and background information on the participation of women in industrial work in the context of economic reforms. It examined the nature of the work, the risks to women’s health and safety in this sector, including mental and physical health dimensions and their gender roles, through a literature review. Part II presented the research methodology, the empirical findings in Chapters Six to Ten (some of which have already been published in international journals), and the discussion (Chapter Eleven), followed by recommendations and conclusions.
Chapter One introduced the research topic, which included a brief description of the background, rationale and research methods. Chapters Two, Three and Four provided the background information based on a literature review. More specifically, Chapter Two highlighted the participation of women in paid work and its impacts on their health, with particular focus on changing gender roles, which ultimately set the rationale for this research. Chapter Three described the geography, population, changing patterns of health and demography of the study setting, which is Bangladesh. Chapter Four discussed the rise of the RMG industry, its economic contribution, and creation of employment opportunities for women, as well as the associated health and safety problems, with particular focus on industrial incidents in the RMG industry in Bangladesh that have determined the research gaps for this thesis.

In Part II, Chapter Five provides a description of the research methodology, the conceptual framework, data collection procedures, recruitment of the study population, data analyses, research rigour, and ethical issues. The empirical findings of this research were discussed in Chapters Six to Ten. Chapter Six discussed the health issues caused by the physical work environment and identified inadequate lighting, constantly sitting in one position without a back rest, and continuous noise from hundreds of machines, as factors that make the female workers feel permanently tired. It revealed that female workers suffer from continuous headaches, back and joint pain, eye pain, and difficulty in breathing associated with inhaling fabric dust. The study findings also showed that working a 10-12-hour day in a factory and meeting the expectations of families regarding household duties doubles these women’s workload, as they become both breadwinners and wives. It further explained how female workers manage their health and injuries, generally by self-medicating with painkillers, because the factory clinics provide little effective health support.
The factory doctors expressed concern in regard to the health problems of the female workers. They indicated that the physical work environment, the low job position, and the nature of the job affect the health of female workers negatively. However, the factory clinics provided limited medical services in the workplace, because they do not have enough staff or equipment.

Chapter Six explained how the stressful work environment of the factory, as well as significant family and societal demands on them at home affect the health of the female workers. Chapter Seven then examined how their experience of work and motherhood, especially separation from their children, affects their mental wellbeing. The separation from their children causes stress and anxiety. Discussion with factory doctors suggested that providing a quality health service that includes support for the mental wellbeing of the workers is not possible in the conditions under which the doctors work. Furthermore, the workers are unable to access government hospital services, due to the nature of their work (long hours) and they cannot access private hospitals because of cost. Both the employers and the government officials acknowledged these problems of resourcing, but neither was able to suggest a clear solution.

Chapter Eight argued that after the Rana Plaza incident, attention focused on building safety to prevent future building collapses and fire incidents, but this narrow focus on the safety issues has stimulated a rethinking of the health and safety of the workers beyond the structural safety of buildings. The findings of this chapter showed that female workers experience physical and verbal violence in the workplace, including constant threats of losing their job, and other personal restrictions. This chapter reported that workers are slapped, yelled at, and their pay is docked by supervisors. Supervisors blamed the women workers for being disobedient, uncooperative and unwilling to work and consider their own behaviour as acceptable in
controlling female workers and maintaining discipline at work. Other stakeholders ignored these problems. Chapter Nine focused on the lived experience of pregnant workers in the RMG industry in Bangladesh, based on their own narratives. The pregnant women’s working conditions, their position in the factory, their living environment, and their role at home all contribute to their health problems and illness during pregnancy.

Chapter Ten considered the initiatives taken by the MOLE to improve the capacity of the DIFE so as to ensure the health and safety of the workers in the RMG after the incident of Rana Plaza. This research finds that the capacity of the MOLE to provide adequate occupational health services remains a problem, due to a shortage of appropriately trained staff and equipment to monitor OHS in factories, and gather useful data for evidence-based decision making. Another barrier to effective OHS of workers is the lack of cooperation by employers in recording data on workers’ health and safety problems. Finally, government officials have limited resources and power to enforce compliance with the health and safety regulations. Such deficiencies threaten the health and safety of the workers.

12.3 Strengths and Limitations of the Study

As identified in Chapters Two to Four, there is limited published qualitative research on female workers’ health and wellbeing problems in the RMG industry in Bangladesh. Consequently this research makes a valuable contribution to the international academic literature on the health and safety of female garment workers. This is particularly important for raising awareness in the developed world of the plight of this significant population, as the downward pressure placed on international buyers is felt throughout the supply chain, and the findings revealed by this research indicate the adverse consequences on the predominantly female workforce. Further, the research
adds to the evidence base for action at a national level, to advocate for more resources to
develop stronger powers of enforcement and improved monitoring and assessment of the
industry. Further, it reveals significant gaps in health and other support services which would
improve the ability of these women to manage the impacts they report. A limitation of the
study is that the recruitment of female study participants was sometimes challenging, due to their
time constraints. And by necessity, most of the interviews were conducted at night and on
weekends, when the workers were tired or distracted.

Further, as this study was conducted in only four factories in two cities of Dhaka district
in Bangladesh, the results may not be transferable to other settings in Bangladesh. However,
as these factories involved some level of cooperation with factory management (interviews and
in some cases, observation) and were based on some dialogue with women who had worked in
more than one factory, it is assumed that these are still representative of some of the better-
managed factories.

An additional limitation lies in the fact that some of the topics that emerged in this research
are particularly sensitive. For example, violence at work was discussed with different
stakeholders (owners, supervisors, government officials and the BGMEA) following accounts
by female workers, but the extent and type of violence may have been underreported (social
desirability bias). All the interviews were conducted in the local language (Bengali),
transcriptions were prepared in Bengali, and findings were translated to English for analysis.
However, some concepts may not be easily or completely translatable.
12.4 Significance of the Study

This research has made several significant contributions to the understanding of female industrial workers’ health and safety. These include:

a) A contribution to the existing knowledge of the health and safety issues of women workers by enabling a more in-depth exploration of the various aspects of their health and safety through the lens of their lived experience. It has widened the picture to include issues of gender expectations in the family and the workplace, as well as of the stresses of the production system itself, as factors that affect their physical and mental wellbeing.

b) The research further highlights the mental stresses caused by social and family issues, such as separation from children and precarious employment. These keep stress levels constantly high for women of child-bearing age. The findings and recommendations can form a basis for developing practical guidelines which can address the issue of mental wellbeing of female RMG workers.

c) This study further suggests that the health and wellbeing of the female workers cannot be addressed without an understanding of the pressures generated by the production system in the factory, which in turn seem to be affected by the buyer-driven global supply system. This highlights the need for more comprehensive collaboration between government, factory owners and global buyers to develop integrated strategies to address the issues of worker health and wellbeing.

d) This study presents evidence for the Ministry of Labour and Employment, plus national and international stakeholders on how the findings and recommendations can be utilized to provide effective OHS services in Bangladesh. It is worth noting that these findings can be used for other developing countries with a similar setting.
12.5 Suggestions for Future Research

As the World Bank has mentioned, occupational health is an emerging health problem for Bangladesh, but there is no database on occupational health problems (WB 2015). More research to develop a database on occupational health problems and their impact on the economy of the country is necessary, in order to inform policy with regard to the need for sustaining the productivity of workers.

These employees suffer from severe stress and anxiety due to violence, heavy workloads, being away from their children, and vulnerability during pregnancy. Mental health problems, including depression, are a global health priority, but there is evidence that scarcity of human resources, limited access to and the cost of mental health services are critical issues in most low- and middle-income countries (Chan Margaret 2010; Saxena, Thornicroft, Knapp and Whiteford 2007). Given the conditions and extent of the issues of the mental health and wellbeing of the female workers in the RMG sector, more research needs to be done to make informed choices that can develop community-based interventions to reduce the mental health burden in Bangladesh.

12.6 Conclusion

In summary, it has been found that these working conditions act to gradually destroy the female workers’ health. Few of the women are able to continue this work beyond five years, because of the health problems they experience. The competitive nature of the industry and the weak support for workers from government and industrial leaders mean that the labour codes for health and safety tend to be ignored. In this conservative society, women bear heavy expectations from their family — husband and children — in terms of housekeeping and food preparation. These expectations lead them to neglect their own health in order to look after their family, as tradition dictates.
What is needed is for the government in particular and society in general to recognize the important role these women play in the national economy and provide support for them, both in terms of their safety and health in the workplace and of the expectations of workers who labour for very long hours.

Pregnancy is an important time in a woman’s life. This research has shown that pregnancy for these workers causes high levels of stress. Multiple factors can affect their health during pregnancy. These include the fear of losing employment, not having enough rest, the dual burden of work at home and in the factory, and not having effective institutional support for maternity leave. Despite the importance of the female workforce to the growth of the RMG industry and its consequent positive contribution to Bangladesh’s economy, this study indicates that more needs to be done to protect the health and safety of the workers, including the vulnerable group of pregnant workers in the industry. The key issues of improving access to factory-based health clinics, antenatal care, modification of workplace conditions during pregnancy, and establishing referral pathways to government hospitals are all included. Further, the lack of institutional and societal understanding and support in the workplace during pregnancy, and the enforcement of maternity leave regulations require urgent government and industry commitment and collaboration.

As a result of the psychological stress of separation of the female workers from their children, in their attempt to improve the economic situation of their family, the women garment workers live a life of anxiety, depression, and despair, with few options to improve their health and safety status. The research found that violence towards female workers exists in multiple forms, causing physical and mental harm to women. Indeed, this research suggests that the economic gain of the nation through the contribution of the RMG industry has come at a cost of humiliation and suffering due to the violence inflicted upon female workers. The study has 1) provided acknowledgement of unacceptable violent acts against female workers in the RMG industry and their associated health impacts; 2) explained the cultural norms
and views of various stakeholders underpinning such workplace culture; and 3) recommended necessary measures to improve the situation. These issues need to be addressed by government and employers, with the support of multinational buyers and humanitarian organizations.

The research has further identified a critical gap between needs and available resources in ensuring OHS services in Bangladesh. According to a report by the World Bank, changing patterns of employment have created new challenges, and employment in the RMG industry exposes workers to health hazards that may result in injuries, respiratory diseases and other ailments (WB 2015). The government of Bangladesh is trying to improve the service of the department with their limited resources, but it still has a long way to go.

In spite of some improvements in OHS services in the RMG industry, there are still significant challenges to be addressed, such as convincing employers to provide accurate and reliable data, providing inspectors with adequate skills and equipment, giving inspectors sufficient power to enforce regulations, and improving the capacity of the DIFE to collect appropriate data, keep records, and analyze them effectively.

These data imply the need for a more holistic understanding of the health problems of female workers in this industry. On this basis, it will be possible to develop policies and strategies to effectively deal with the issues and prevent further problems that may damage the economy in the future. This study will benefit national and international stakeholders by enabling them to understand the health situation of the female workforce, then by making clear the current effectiveness of the OHS service status of the Bangladesh RMG sector since the Rana Plaza collapse, and by developing an understanding of the level of progress and the continuing challenges in ensuring workers’ health in the context of national and international labour standards and labour rights.
APPENDIX I

Summaries and Characteristics of Studies on Health, Safety and Work Environment Issues in Bangladesh

<table>
<thead>
<tr>
<th>Reference</th>
<th>Year</th>
<th>Study type</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kabir and Mahmud</td>
<td>1991</td>
<td>Review paper</td>
<td>This article examines the underlying causes of the massive influx of women’s participation in paid work.</td>
</tr>
<tr>
<td>Pratima Paul-Majumder and Salma Chaudhuri Zohir</td>
<td>1994</td>
<td>Survey</td>
<td>This paper analyzes the socio-economic transformation brought about in the lives of women who migrated to the cities from rural areas to take up work in the garment industry; this move has opened unprecedented opportunities for gainful employment. It has improved their living standard markedly.</td>
</tr>
<tr>
<td>Ruma Jamal and Ebel Wickramanayake</td>
<td>1996</td>
<td>Survey</td>
<td>This article examines the conditions which led women to work in the garment industry and found that poor education, lack of other skills, and poverty are the main reason for working in this sector. Women have heavy workloads, they receive minimum wages, they do not have written job contracts, and do not receive sick leave or maternity leave. There are limited toilet facilities and toilets are not clean.</td>
</tr>
<tr>
<td>Naila Kabir</td>
<td>1997</td>
<td>Qualitative</td>
<td>Work opportunities for women have created cash earnings that help women to renegotiate the purdah norms, husbands, and the community in general, legitimizing women’ working outside of the family because they need the income.</td>
</tr>
<tr>
<td>Pratima Paul-Majumder</td>
<td>1997</td>
<td>Survey</td>
<td>This study found that low wages, long working hours, limited leave facilities, poor lighting and ventilation, unhygienic and inadequate toilet facilities were the norm. Workers reported overcrowding, poor fire safety, limited lunchroom space, and pure drinking water facilities.</td>
</tr>
<tr>
<td>Paul-Majumder and Anwara Begum</td>
<td>2000</td>
<td>Survey</td>
<td>Most of the workers face low job security, low wages, delayed payments and poor living conditions. Female workers are paid less than male workers for the same job.</td>
</tr>
<tr>
<td>Syeda Sharmin Absar</td>
<td>2002</td>
<td>Qualitative, followed by in-depth interviews</td>
<td>Respondents reported verbal, non-verbal, and physical abuse inside factories.</td>
</tr>
<tr>
<td>Syeda Sharmin Absar</td>
<td>2003</td>
<td>Qualitative, followed by in-depth interviews</td>
<td>Female workers reported headaches, stomach upsets, and weakness. They further reported living on poor diets, with inadequate sleep.</td>
</tr>
<tr>
<td>Simeen Mahmud and Naila Kabir</td>
<td>2003</td>
<td>Review paper</td>
<td>Labour legislation in Bangladesh is not effective. There is an absence of trade unions, women do not have written contracts for work, they are subjected to long working hours, delayed payments, and violations of health and safety standards,</td>
</tr>
<tr>
<td>Dina M. Siddiqi</td>
<td>2003</td>
<td>Mixed method study using qualitative and quantitative research technique</td>
<td>Respondents reported verbal, non-verbal, and physical abuse inside factories. Female workers reported having been subjected to sexual or other abusive exploitation in the workplace. Further, female workers reported that the night shift is more dangerous in terms of physical and sexual harassment.</td>
</tr>
<tr>
<td>Syeda Sharmin Absar</td>
<td>2009</td>
<td>Review paper</td>
<td>The women in the RMG sector receive low wages. They are working at lower levels in the factory hierarchy as helpers, machinists, and quality controllers, and rarely work as line supervisors. Most of the men are working in the top positions.</td>
</tr>
<tr>
<td>Nidhi Khosla</td>
<td>2009</td>
<td>Review paper</td>
<td>This study found that female workers have greater economic independence, respect, social standing and more of a ‘voice’ than before. However, harassment and exploitation persist.</td>
</tr>
<tr>
<td>Mayumi Murayama, Nobuko Yokota</td>
<td>2009</td>
<td>Review paper</td>
<td>This multi-country study highlights the labour practices and working conditions of factories in Bangladesh, India and South Korea. It reports that the environment is exploitative.</td>
</tr>
<tr>
<td>Nazneen Jahan Chowdhury, Md Hafu Ullah</td>
<td>2010</td>
<td>Quantitative Survey</td>
<td>The main objective of the study was to assess the socio-economic conditions of female garment workers. It found that most of the surveyed workers (71.52 percent) earn BDT 4000 (US$50) or less per month and face financial hardship to support a family of 3–4 members. The workers do not receive their salary on time. The garments workers do not receive maternity leave.</td>
</tr>
<tr>
<td>Hossain Naomi</td>
<td>2011</td>
<td>Review paper</td>
<td>This paper examines the development of the RMG sector and its contribution to the country’s economy. Women’s garment work experience is exploitative, physically demanding and features unsafe conditions of fire risks, sexual harassment, plus physical and verbal abuse.</td>
</tr>
<tr>
<td>Reference</td>
<td>Year</td>
<td>Study type</td>
<td>Main findings</td>
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<tr>
<td>Hossain Naomi</td>
<td>2012</td>
<td>Review paper</td>
<td>This study found that the nature of garment work is hard and exploitative, but participation in this sector has brought economic gain and independence to women’s lives and also has empowered women to bargain in their households.</td>
</tr>
<tr>
<td>Md Kamrul Islam and Dilara Zahid</td>
<td>2012</td>
<td>Survey</td>
<td>The majority of the respondents migrated to Dhaka from different rural areas of Bangladesh. Most of the workers earn below the minimum wage structure of the country. Workers spend most of their money on food and accommodation. They work more than 10–12 hours per day. The majority of employees work for 3–4 years. Most workers do not have other benefits such as transport, medical allowance, sick leave, weekend and maternity benefits.</td>
</tr>
<tr>
<td>Shamima Akhter</td>
<td>2014</td>
<td>Qualitative research employing case study method</td>
<td>The female garment workers in Bangladesh are exploited in the garment factories because they do not have bargaining power; they work in unhealthy environments sometimes seven days a week, and they do not have access to paid maternity leave.</td>
</tr>
<tr>
<td>Ferdous Ahmed</td>
<td>2014</td>
<td>Review paper</td>
<td>The Bangladesh RMG industry provides one of the lowest wages in the world and late payment is common. Female workers receive lower wages than male workers for the same job. Women work mostly in the lower positions.</td>
</tr>
<tr>
<td>Dr. Md. Mamunur Rashida, Shubbir Ahmadb, Prof. M.A. Rashid Sarkar</td>
<td>2014</td>
<td>Review of secondary information</td>
<td>This review paper found that some factories give maternity benefits to the female workforce, that is, four months of paid maternity leave, while some factories do not.</td>
</tr>
<tr>
<td>Nazneen Ahmed, Dev Nathan</td>
<td>2014</td>
<td>Survey</td>
<td>This paper found that the wages are still low, working conditions are poor (lighting, provision of toilets and safety equipment). After the incident of Rana Plaza, the owners were under pressure from the buyers to improve the working environment.</td>
</tr>
<tr>
<td>S.M. Akterjijaman and Md. Herok Ahmad</td>
<td>2014</td>
<td>Survey</td>
<td>Most of the garment workers reported that they are not happy with their wages, but that this work gives them opportunities to contribute financially to their family and reduce the family’s economic burden.</td>
</tr>
<tr>
<td>Khan, Mohd Raisul Islam, Wichterich, Christa</td>
<td>2015</td>
<td>Mixed method research which includes document reviews and data collection through interviews</td>
<td>This paper examines the various aspects of the RMG industry. It highlights its growth issues, its contribution to the country’s economy, the development of the wage board, and the implementation of the fire accord, through document reviews. The empirical findings were that most of the workers still do not have any written job contracts, the workers’ workday averages 11–12 hours, including three hours of overtime; forced labour is not common, but verbal and physical abuse is common.</td>
</tr>
<tr>
<td>Afsana Mustafa, M. Serajul Islam, Saiful Islam, Mahfuja Khatun</td>
<td>2016</td>
<td>Mixed method research which includes document reviews and primary data collection through interviews</td>
<td>The study shows that with their involvement in the garment industry, women have brought positive changes in different types of livelihood assets, such as financial capital, physical capital, human capital, social capital, and natural capital. About 90 percent of women workers claimed both income and savings increased. Again, 77 percent of women workers reported that their overall livelihood status had improved since their involvement in the garment industry. About 73 percent reported that their medical facilities had improved because the garment factories provided free medical check-ups and free medicine for the workers. Moreover, 70 percent, 66 percent and 74 percent of women workers respectively opined that their clothing, sanitation and housing facilities had improved. By getting an employment opportunity in the RMG sector, the women are contributing both to society and to the economy of the country.</td>
</tr>
<tr>
<td>Soma Dey, Palash Basak</td>
<td>2017</td>
<td>Document review and qualitative research method</td>
<td>This paper sheds light on women’s agency and choice. It shows that the apparently ‘silent’ workers permit the global industry to continue with ‘cheap’ labour, driven by a gender ideology, and structural and material constraints. But women workers are moving forward in ensuring wage justice. Assessing the achievements and drawbacks of the wage struggle, this study envisions a more effective role for women in securing wider labour rights in the RMG sector.</td>
</tr>
<tr>
<td>Ruchira Naveda, Tabassum Rahman, Samantha Willanb, Rachel Jewkes, Andrew Gibbs</td>
<td>2017</td>
<td>Qualitative research method; data was collected through in-depth interviews and key informant interviews</td>
<td>In both the home and workplace, female workers experience emotional, physical, sexual, and economic violence from different perpetrators. This study further identifies that episodes of violence in both places are triggered by patriarchal norms and the structures of institutions that control and limit women’s autonomy. The study suggests designing interventions to prevent violence in the home and in the workplace.</td>
</tr>
</tbody>
</table>
APPENDIX II

Information Sheet

(IDI/KII/FGD/Observation)

Health and Safety Issues for Women working in the Ready-made Garment Industry in Bangladesh

Research Team:
Chief investigator: Prof. Cordia Chu (Principal supervisor)
Contact phone: +61(07)3735-7458, Fax: +61(07)3735-5318
Contact email: c.chu@griffith.edu.au
Student investigator: Ms. Sadika Akhter (PhD student)
Contact phone: +8801715010970, +61470381227
Contact email: sadika.akhter@griffithuni.edu.au
Centre for Environment and Population Health
School of Environment, Griffith University, Australia

Why is the research being conducted?

This research is a component of a student’s PhD program at the Centre for Environment and Population Health, School of Environment, Griffith University, Australia. Generally, the aim of this research is to understand the health and safety issues of the women who are working in the ready-made garment industry in Bangladesh. This study will be carried out in two cities in the Dhaka district in Bangladesh, one being Mirpur and the other, Savar.

The objectives of this study are:

- To identify how gender-segregated roles at work impact on women’s health in Bangladesh
- To understand the working conditions of female employees in the garment industry in Bangladesh
- To explore women’s experiences and views about their health and safety issues in relation to their work in the garment industry in Bangladesh
• To investigate potential strategies for the Bangladeshi government and the global garment industry to improve health and safety issues for women in this industry

What you will be asked to do

In this research you will be asked to participate in an in-depth interview that aims to obtain information on the gender-related issues of work, health, and safety related to the women who work in the garment industry. You will also be asked about any strategies that you could suggest for improving the working conditions for women in this sector. Each interview will take between 45 and 60 minutes. Arrangements regarding the location for the interviews will be made according to your choice and availability, in a comfortable and private environment. Interviews will be conducted at each participant’s convenience and can be rescheduled as needed.

You will be provided with an information sheet and interview guidelines in Bangla, to help you understand the study.

The basis on which participants are selected or screened

The researcher will interview female workers over 18 years old, government officials from the ministry of Labour and Employment in Bangladesh, NGO workers, factory owners, supervisors, or other relevant stakeholders who are actively involved in the issues of women’s health and safety in the ready-made garment industry in Bangladesh. They have been selected because they are the key people in this area who can provide information for this research.

The expected benefits of the research

The benefit to you and to decision-makers is that this research will make recommendations to develop strategies which focus on gender and women’s health and safety issues and which can improve the working condition for the women in the ready-made garment industry in Bangladesh. Bangladeshi stakeholders who are involved in health and safety issues will be able to provide significant evidence to develop strategies for improving working conditions for these female employees. Griffith University will also derive benefits from this research, as it also aims to develop strategies for improving the health and safety issues for women more globally.

Risks to you

There are no foreseeable risks caused by this research to the participants or to the research team; no foreseeable risks to the environment; or none that could impact on your job. Your participation and cooperation is entirely voluntary. It is entirely your decision. in addition, you have the right not to answer any questions if you do not want to. You can also withdraw from the study at any time.
If you decide not to be in the study, you will not lose any benefits. If you choose not to participate, it will not affect your current or future relationships with the university or in your job. There are no penalties or loss of benefits for not participating or for discontinuing your participation.

**Your confidentiality**

The records of this study will be kept private. All audio recordings will be erased after the transcripts have been written. All of your responses will be coded for analysis to remove individual identification. None of the specific records will be used for wider purposes other than the researcher’s academic program. In any report to be published, no information will be provided that could identify you. Data collected will be kept in a locked file and be accessible only to the researcher. As per the normal data retention rules of the university, data from this study will be stored for five years. The study results will be translated and shared with the study participants in simple language, both in English and Bengali, so that they can understand the results.

**Questions/further information**

If you have any additional queries, concerns, or complaints about this research, you may contact:

Sadika Akhter (PhD candidate)
Contact phone: +8801715010970, +61470381227
Contact email: sadika.akhter@griffithuni.edu.au
Centre for Environment and Population Health
School of Environment, Griffith University, Australia

Dr. Iqbal Anwar
Scientist, Centre for Equity and Health Systems, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR, B)
Contact email: iqbal@icddrb.org
Telephone: ++88 01732292737

Prof. Cordia Chu (Principal supervisor)
Contact phone: +61(07)3735-7458, Fax: +61(07)3735-5318
Contact email: c.chu@griffith.edu.au
Centre for Environment and Population Health
School of Environment, Griffith University
Australia

**The ethical conduct of this research**

Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If potential participants have any concerns or complaints about the ethical conduct of the research project they should contact the Manager, Research Ethics,
at Griffith University Human Research Ethics Committee to (617) 3735 4375 (or research-ethics@griffith.edu.au) or local contact Dr. Iqbal Anwar, Scientist, Centre for Equity and Health System, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B), Contact email: iqbal@icddrb.org, Telephone: ++88 01732292737

Feed back to you

Because this research is a component of a candidate’s PhD program at the Centre for Environment and Population Health, School of Environment, Griffith University, Australia, the report will be published as a thesis by Griffith University. A copy of this thesis will also be given to the Ministry of Labour and Employment, Bangladesh, as feedback and a report on its findings.

Privacy Statement

The conduct of this research involves the collection, access and/or use of your identified personal information. The information collected is confidential and not will be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. A de-identified copy of this data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information, consult the University’s Privacy Plan at www.gu.edu.au/ua/aa/vc/pp or telephone (+61) 7 3735 4375).
APPENDIX III

Informed Consent In-Depth Interview

Health and Safety Issues for Women Working in the RMG Industry in Bangladesh

Research Team:

Principal supervisor: Prof. Cordia Chu
Contact phone: +61(07)3735-7458, Fax: +61(07)3735-5318
Contact email: c.chu@griffith.edu.au

Principal researcher: Ms. Sadika Akhter (PhD student)
Contact phone: +61(07)3735-3698, Fax: +61(07)3735-5318
Contact email: sadika.akhter@griffithuni.edu.au
Centre for Environment and Population Health
School of Environment, Griffith University, Australia

By signing below, I confirm that I have read and understood the information sheet and the ethical issues in particular have noted that:

- I understand that my involvement in this research will include participation in an in-depth interview
- I have had any questions answered to my satisfaction
- I understand the risks involved
- I understand that there will be no direct benefit to me from my participation in this research
- I understand that my participation in this research is voluntary
- I understand that my participation will be recorded on audio-tape
- I understand that only the research team will have access to this tape
- I understand that the audio-tape will be erased following transcription
- I understand that if I have any additional questions I can contact the research team
- I understand that I am free to withdraw at any time, without comment or penalty
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 3735 5585 (or research-ethics@griffith.edu.au) or Dr. Iqbal Anwar, Scientist, Centre for Equity and Health System, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B) at iqbal@icddrb.org, if I have any concerns about the ethical conduct of the project.
- I agree to participate in this research

Name

Signature

Date
APPENDIX IV

Informed Consent Focus Group Discussion

Health and Safety Issues for Women Working in the RMG Industry in Bangladesh

Research Team:

Principal supervisor: Prof. Cordia Chu
Contact phone: +61(07)3735-7458, Fax: +61(07)3735-5318
Contact email: c.chu@griffith.edu.au

Principal researcher: Ms. Sadika Akhter (PhD student)
Contact phone: +61(07)3735-3698, Fax: +61(07)3735-5318
Contact email: sadika.akhter@griffithuni.edu.au
Centre for Environment and Population Health
School of Environment, Griffith University, Australia

By signing below, I confirm that I have read and understood the information sheet and the ethical issues. In particular I note that:

- I understand that my involvement in this research will include participation in a focus group discussion
- I have had any questions answered to my satisfaction
- I understand the risks involved
- I understand that there will be no direct benefit to me from my participation in this research
- I understand that my participation in this research is voluntary
- I understand that my participation will be recorded on audio-tape
- I understand that only the research team will have access to this tape
- I understand that the audio-tape will be erased following transcription
- I understand that if I have any additional questions I can contact the research team
- I understand that I am free to withdraw at any time, without comment or penalty
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 3735 5585 (or research-ethics@griffith.edu.au) or Dr. Iqbal Anwar, Scientist, Centre for Equity and Health System, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B) at iqbal@icddrb.org, if I have any concerns about the ethical conduct of the project.
- I agree to participate in this research

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APPENDIX V

Informed Consent Key Informant Interview

Health and Safety Issues for Women Working in the RMG Industry in Bangladesh

Research Team:

Principal supervisor: Prof. Cordia Chu
Contact phone: +61(07)3735-7458, Fax: +61(07)3735-5318
Contact email: c.chu@griffith.edu.au

Principal researcher: Ms. Sadika Akhter (PhD student)
Contact phone: +61(07)3735-3698, Fax: +61(07)3735-5318
Contact email: sadika.akhter@griffithuni.edu.au
Centre for Environment and Population Health
School of Environment, Griffith University, Australia

By signing below, I confirm that I have read and understood the information sheet and the ethical issues in particular, have noted that:

- I understand that my involvement in this research will include participation in an In-depth interview as a key informant
- I have had any questions answered to my satisfaction
- I understand the risks involved
- I understand that there will be no direct benefit to me from my participation in this research
- I understand that my participation in this research is voluntary
- I understand that my participation will be recorded on audio-tape
- I understand that only the research team will have access to this tape
- I understand that the audio-tape will be erased following transcription
- I understand that if I have any additional questions I can contact the research team
- I understand that I am free to withdraw at any time, without comment or penalty
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +613735 5585 (or research-ethics@griffith.edu.au) or Dr. Iqbal Anwar, Scientist, Centre for Equity and Health System, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B) at iqbal@icddrb.org, if I have any concerns about the ethical conduct of the project.
- I agree to participate in this research

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APPENDIX VI

Guidelines of an In-Depth Interview/FDG with Female Workers

Procedures

This module uses a structured questioning frame. The answers can be recorded directly on the question form. The whole interview is captured in an audio recording as well, but it is efficient to fill in the information here.

IDI1. Socio-demographic profile

Date:_____________________

Interviewer Name:_____________________

Respondent name:_____________________

District:______________

Upazila:______________

Village:__________

Age:

Occupation:

Religion:

Education:

Marital Status:

Husband’s Age:

Husband’s Occupation:

Mother is living in maternal (natal) home, in-law’s home, or independent home

Household

Total number of household members living in the same house:_____________________

Number and ages of children:

Economic indicators:

Electricity: Yes No

House characteristics
- Composition of floor:
- Composition of roof:
- Composition of walls:

Is there a child still breast-feeding ___________ Yes No

Information Related to job, usual work, and earnings:

**Information related to work: purpose and rationale**

*Asking about their job and work is a good way to engage the respondent and begin the process of building rapport, because this is a topic about which each one of them has something to say, so it will put them into a position which will help the flow of the conversation.*

i) To establish rapport with respondents through questions those are relatively easy for them to answer;

ii) To know respondents’ current position, content of work, and their earnings as a basis for starting the dialogue on job and everyday work at the factory within the larger sphere of concern of this study, (which we call health and safety issues’)

iii) It will also help to get a picture of the typical day of garment worker’s life at the workplace and at home

I could start the discussion by saying, ‘I’d like to start by asking when you joined in your current factory to work?’

Then ask: why did you decide to work in a garment factory?

How did you get this job?

Did you receive any appointment letter when you joined this factory?

What is your current work position or role?

When do you go to work every day in the morning?

What type of work do you do at the factory usually?

How long do you work at the factory? (Probe: hours of overtime)

When do you get a break during work? How many breaks do you usually get in a day?

What do you eat during your breaks?

**Information related to transport from home to work and work to home:**

*In this section I will expand the focus from job and work to the area of transportation and safety issues. It will set the stage for the next two topics which are aimed at understanding health and safety issues to get the larger picture of the study topic. They are open-ended questions with guided probing.*

Introducing the topic: ‘Now I would like to ask you about things related to your work and transport. Can you tell me when do you return home after work and how do you return home after work?”
If she says, she goes to the factory walking, then I will ask Tell us in detail your experience of walking in the street (Probe: teasing, comments and her feeling and coping strategy about it)

How do you manage transport to return home at night?

What are the safety problems you face at night in returning home?

How do you manage the transport cost if you return home at night?

What transport facilities do you have from the factory?

**Information related to health problems:**

First I will introduce the topic to the respondent by saying: Now I would like to ask you about health-related problems. We will discuss health-related problems in detail, care-seeking practices and economic constraints on treatment action choices.

I will start the discussion by saying: Many women have many health-related problems in their life; I would like to know about your health-related problems.

Can you tell me what health problems did you have before working in the garment factory?

What health problems do you have now after joining the factory?

How do you get support from your employer when you have any health-related problems due to the work? (Probe: treatment cost, leave, mental support)

Where do you go for treatment when you have any health-related problems?

When was the last time you got sick due to your work? What was the problem?

Where did you go for treatment? How much did you pay for your treatment?

How did you manage the money?

How do you manage your time when have your menstruation?

How many toilets do you have at your factory?

What is the condition of the toilets at your factory?

What are support did you receive from your supervisor?

What support did you receive from your employer?

**Information related to safety issues at work and home:**

Introduce the topic: I would like to talk to you about safety issues you encounter at your workplace. I will start by saying Now I would like to learn about how the respondents view of the problems of safety at her workplace.

What are safety problems do you have at home?

What do you do to solve the problem of your safety?
**Information related to household work at home:**

Introduce the topic. We discussed your job, transport, health and safety problems, now I would like to talk to you about your family and household work. I will start by saying Now I would like to learn about how you manage your work at home beside your work at the factory.

Can you tell me who works in the household when you work at the factory until midnight?

Who looks after your children when you are at the factory?

What type of work do you need to do at home after you return from work?

How does your husband see your work until midnight?

What safety problems do you have at home?

What challenges do you have as women in managing your work at the factory and at home?

**Information related to suggestion about health and safety issues:**

What needs to be done to improve your working condition at the factory?

Do you have any training related to health and safety issues?

What type training do you need about health and safety issues?
APPENDIX VII

Guidelines of Key Informant Interview with Employer/Supervisor

Date: ____________________
Interviewer Name: ________________
Respondent name: ___________________
Age: _______________________
Occupation: _______________________
Religion: _________________________
Education: _________________________
When did you establish your garment factory?
How did you come into this business?
How many factories do you have?
How many workers are working in this factory?
How many of them are women?
Why do you recruit women for your factory?
How do you recruit these women?
What benefit do you provide to the women other than their salary?
What problems do you encounter when you recruit women for this industry?
What work-related health problems do the women have?
What health benefits do you provide for the women who are working in your factory?
What safety problems do female workers encounter at their workplace?
How do you collect the information of safety-related problems of women who are working in the garment industry?
What are the current programs in Bangladesh to improve the working condition for women in the garment industry?
What barriers and challenges to improved working conditions do you identify?
What does the government need to do to improve the working conditions in the garment industry in Bangladesh?
What policy do you have for the health and safety of the workers of your factory?

What gender policy do you have for the women who are working in the garment industry?

What compensation policy do you have regarding the health and safety issues for your factory?

How frequently the government officials come to visit your factory?

What do they monitor when they come to visit your factory?

What initiatives have been taken in your factory to avoid incidents like the Rana Plaza collapse?

What is your opinion about the overall safety issues of the garment industry in Bangladesh?

What are your suggestions to improve the health and safety of the garment industry in Bangladesh?
APPENDIX VIII

Guidelines of Key Informant Interview with Government Officials/BGMEA

Date: ________________
Interviewer Name: _____________________
Respondent name: _____________________
Age: _____________________
Occupation: _____________________
Religion: _____________________
Education: _____________________

How long have you been working in your current position?

From your working experience, I would like to know from you, what are the problems confronting women who are working in the garment industry?

What health problems do the women have that are related to their work?

How do you collect the information of health-related problems of women who are working in the garment industry?

Who collects this information for your ministry?

What safety problems do the women have at their workplace?

How do you collect the information of safety-related problems of women who are working in the garment industry?

How are the problems of women’s health and safety currently being addressed?

How is the government monitoring the health and safety issues for the women?

What are the current programs in Bangladesh to improve the working conditions of women in the garment industry?

What barriers and challenges does Bangladesh confront in addressing working conditions issues?

What needs to be done to improve the working conditions in the garment industry in Bangladesh?

What policies do we have to address women’s health and safety issues?

What are the policy gaps in addressing the issue of women’s health and safety in Bangladesh?

What gender policy do you have in place for the women who are working in the garment industry?
What is the compensation policy regarding the health and safety issues for this sector?

How do negotiate with the owners of factories to ensure health and safety-related compensation for the women?

What initiatives have been taken after the Rana Plaza tragedy?

How are you going to implement those initiatives?
REFERENCES


