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**WORK STRESS, SUPERVISORS CONFLICT,
WORK-FAMILY CONFLICT, AND MENTAL HEALTH
AMONG FEMALE WORKERS IN THE MALAYSIAN
MANUFACTURING INDUSTRY**



**MASTER OF SCIENCE
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**WORK STRESS, SUPERVISORS CONFLICT, WORK–FAMILY
CONFLICT, AND MENTAL HEALTH AMONG FEMALE WORKERS IN
THE MALAYSIAN MANUFACTURING INDUSTRY**



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School of Business Management,
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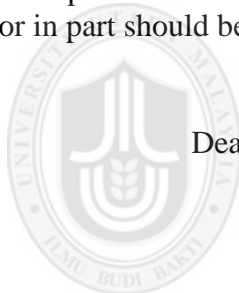
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ABSTRACT

Mental health issues among female workers are receiving increasing attention because they affect personal well-being and workplace productivity, especially in labour-intensive industries such as manufacturing. Although many studies have examined workplace stress, there is limited research focusing on the mental health challenges faced specifically by women in Malaysian industrial settings. Guided by the Conservation of Resources (COR) theory, this study examines how work stress, conflict with supervisors, and work-to-family conflict influence the mental health of female manufacturing workers. A quantitative design was used. Data were collected through a structured Google Form survey from 111 female employees at a glove factory in Senawang, Negeri Sembilan. The survey measured work stress, supervisor conflict, work-to-family conflict, and mental health. Data were analysed using SPSS Version 29, applying descriptive statistics, Spearman's correlation, and multiple regression. The correlation results showed that work stress ($r = 0.388$, $p < 0.001$), supervisor conflict ($r = 0.479$, $p < 0.001$), and work-to-family conflict ($r = 0.469$, $p < 0.001$) were all significantly associated with mental health. The regression model was statistically significant ($R = 0.648$, $R^2 = 0.420$, $F = 25.636$, $p < 0.001$). Supervisor conflict ($B = 0.283$, $\beta = 0.311$, $p < 0.001$) and work-to-family conflict ($B = 0.273$, $\beta = 0.298$, $p = 0.005$) were significant predictors of mental health. However, work stress ($B = 0.171$, $\beta = 0.162$, $p = 0.083$) was not significant when all predictors were included. These findings indicate that interpersonal stressors and role-based conflicts have a stronger effect on mental health than workload-related stress alone. The study suggests that organizations should prioritise supportive supervisory practices and implement family-friendly policies to protect the psychological well-being of female manufacturing workers. Overall, the results provide evidence that both workplace interactions and work-family demands are key factors affecting mental health in Malaysia's manufacturing sector.

Keywords: *Work Stress, Supervisor Conflict, Work-to-Family Conflict, Mental Health, Female Workers, Manufacturing Industry, Malaysia, COR Theory*

ABSTRAK

Isu kesihatan mental dalam kalangan pekerja wanita semakin diberi perhatian kerana ia menjejaskan kesejahteraan individu dan produktiviti tempat kerja, terutamanya dalam industri berintensif buruh seperti pembuatan. Walaupun banyak kajian telah meneliti tekanan di tempat kerja, masih terdapat kekurangan penyelidikan yang memberi tumpuan khusus kepada cabaran kesihatan mental yang dialami oleh wanita dalam sektor industri di Malaysia. Berpandukan Teori Pemuliharaan Sumber (Conservation of Resources, COR), kajian ini meneliti bagaimana tekanan kerja, konflik dengan penyelia, dan konflik kerja-ke-keluarga mempengaruhi kesihatan mental pekerja wanita dalam sektor pembuatan. Reka bentuk kajian kuantitatif digunakan. Data dikumpul melalui tinjauan Google Form berstruktur melibatkan 111 pekerja wanita di sebuah kilang sarung tangan di Senawang, Negeri Sembilan. Soal selidik mengukur tekanan kerja, konflik penyelia, konflik kerja-ke-keluarga, dan kesihatan mental. Data dianalisis menggunakan SPSS Versi 29 melalui statistik deskriptif, korelasi Spearman, dan regresi berganda. Keputusan korelasi menunjukkan bahawa tekanan kerja ($r = 0.388$, $p < 0.001$), konflik dengan penyelia ($r = 0.479$, $p < 0.001$), dan konflik kerja-ke-keluarga ($r = 0.469$, $p < 0.001$) semuanya berkait secara signifikan dengan kesihatan mental. Model regresi adalah signifikan secara statistik ($R = 0.648$, $R^2 = 0.420$, $F = 25.636$, $p < 0.001$). Konflik dengan penyelia ($B = 0.283$, $\beta = 0.311$, $p < 0.001$) dan konflik kerja-ke-keluarga ($B = 0.273$, $\beta = 0.298$, $p = 0.005$) merupakan peramal signifikan kesihatan mental. Namun, tekanan kerja ($B = 0.171$, $\beta = 0.162$, $p = 0.083$) tidak signifikan apabila semua pembolehubah lain dimasukkan bersama. Dapatan ini menunjukkan bahawa faktor interpersonal dan konflik peranan memberi kesan lebih kuat terhadap kesihatan mental berbanding tekanan beban kerja semata-mata. Kajian ini mencadangkan supaya organisasi memberi keutamaan kepada amalan penyeliaan yang lebih menyokong serta melaksanakan dasar mesra keluarga bagi melindungi kesejahteraan psikologi pekerja wanita. Secara keseluruhan, hasil kajian menunjukkan bahawa interaksi di tempat kerja dan tuntutan kerja-keluarga merupakan faktor utama yang mempengaruhi kesihatan mental dalam kalangan pekerja wanita di sektor pembuatan di Malaysia.

Kata Kunci: *Tekanan Kerja, Konflik Penyelia, Konflik Kerja–Keluarga, Kesihatan Mental, Pekerja Wanita, Industri Pembuatan, Malaysia, Teori COR*

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LIST OF ABBREVIATION

PTSD - POST TRAUMATIC STRESS DISORDER

WHO – WORLD HEALTH ORGANIZATION

SPSS – STATISTICAL PACKAGE FOR SOCIAL SCIENCES

WFC – WORK FAMILY CONFLICTS



CHAPTER ONE

INTRODUCTION

1.1 Background Study

A person's ideas, feelings, mood, or behaviour can all be impacted by mental health difficulties, which can have a serious effect on everyday functioning, interpersonal connections, and general well-being. A mix of genetic, biochemical, environmental, and psychological variables may contribute to these problems (Ranjiwala, 2024). Common mental health disorders include bipolar disorder, which is characterised by extreme mood swings between manic episodes and depressive lows, anxiety disorders, which are characterised by excessive worry, fear, or nervousness, and depressive disorders, which are marked by persistent feelings of sadness, hopelessness, or a loss of interest in previously enjoyed activities (Chandler & Dombrowski, 2024; Miklowitz, 2024). Another serious mental illness that causes delusions, hallucinations, and dissociation from reality is schizophrenia (Hany et al., 2024). Perceptions of oneself and others are impacted by personality disorders, such as narcissistic personality disorder and borderline personality disorder (Di Giacomo et al., 2023). Notable mental health conditions also include post-traumatic stress disorder (PTSD), which can arise after exposure to stressful experiences, and eating disorders such as bulimia nervosa and anorexia nervosa, which entail inappropriate interactions with food and body image (WHO, 2022). Effective management and recovery of these

illnesses depend on early diagnosis and proper treatment with medication, therapy, and supportive care (National Institute of Mental Health, 2023).

A rising number of female employees are experiencing mental health problems, which are frequently brought on by job stress, discrimination based on gender, difficulties juggling work and personal obligations, and caring responsibilities (Davies, 2021). In comparison to men, women may suffer from higher rates of anxiety, depression, and burnout (Farhane-Medina et al., 2022). This is partially because of cultural expectations and unequal access to leadership positions (Farhane-Medina et al., 2022). In the United States, statistics show women have a higher prevalence of mental disorders than men. In 2022, 26.4% of women experienced some form of mental illness, compared to 19.7% of men (NIMH, 2024). Additionally, the COVID-19 pandemic significantly impacted women, leading to increased stress, anxiety, and substance use during the early stages of the crisis (Thibaut & El Nahas, 2023). Stress levels can be increased by elements including income disparities, harassment, and juggling work and home responsibilities (Kumar, 2023). To address these mental health problems among female employees, it is imperative to ensure a supportive work environment, provide access to mental health resources, and promote gender equality (Hamouche, 2023). Over the past five years, mental health among female workers have become increasingly prominent, particularly in the context of workplace stress and societal pressures. Women are generally more prone to mental health challenges, including anxiety and depression, which are often exacerbated by workplace environments, especially in industries with higher demands or lower support for work life balance (Sharma, 2024). As an example, according to the "Green Paper on the

Mental Well-being of Chinese Career Women," around 85% of career women in China experience mental health concerns such as anxiety, depression, and rage, with these disorders being more prevalent than in their male counterparts (Ma et al., 2025).

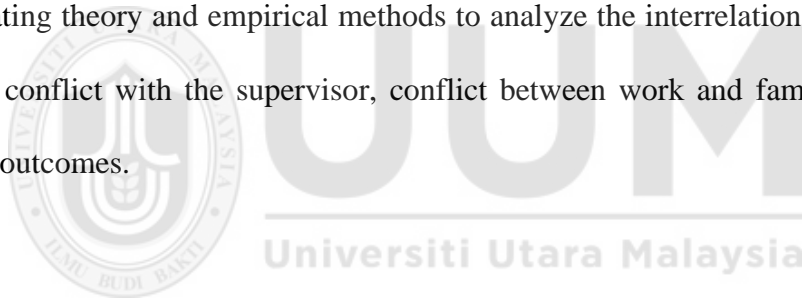
The American Psychological Association also reports that women are more likely to experience workplace stress, with nearly half reporting increased stress levels over the past five years (Medaris, 2023). This trend reflects broader global patterns, where women, particularly in industries with caregiving responsibilities or traditionally male-dominated fields, report higher levels of stress, burnout, and mental health challenges (Artz et al., 2021). Studying female mental health is vital because women face unique biological, psychological, and social challenges. Hormonal changes associated with menstrual cycles, pregnancy, postpartum, and menopause exert significant impacts on mental health, such as states of depression and anxiety. Women also typically experience trauma, such as domestic violence and sexual attack, which predisposes them to mental illnesses like PTSD (Batulan et al., 2024). In the workplace, women are subjected to added stress in terms of gender inequality, such as wage gaps, underrepresentation in senior levels, and balancing caregiving and work roles. Such concerns can increase burnout and other psychological illnesses (Hing et al., 2023). Moreover, women are also at a greater risk of developing anxiety and depression than men, so it is important to address these disparities. Addressing women's needs in more specific ways also has broader social dividends because the majority of women are caretakers, and their health has direct ramifications on families and communities (NIMH, 2024). Understanding these gender-related issues enables treatment and prevention interventions to be more properly tailored for women's

needs.

In the last five years, the number of mental illnesses has increased around the world, affecting people from every background and region. The World Health Organisation (WHO) and other health data sources report that the prevalence of mental health disorders was 970 million people worldwide in 2019; anxiety and depressive disorders accounted for the majority of cases. During the COVID-19 pandemic, this number rose dramatically, with anxiety and sadness rising by 25% in 2020 (Mahmud et al., 2023). Anxiety problems affect about 301 million people globally, while depression affects over 280 million (Liu et al., 2024). Higher rates of anxiety and depression are reported by women and youth, especially during the epidemic. Influence of COVID-19: The pandemic has had a significant effect on mental health, aggravating mental health problems in all areas by raising rates of stress, loneliness, and economic uncertainty. For example, the prevalence of anxiety and depression increased by 26% worldwide in 2020 alone (WHO, 2022). Study on mental health is crucial because mental problems impact around 1 billion people worldwide, including conditions like sadness and anxiety. In Malaysia's manufacturing sector, women workers continue to receive relatively little attention, despite an increasing amount of research on occupational stress and mental health.

Additionally, despite the extensive research on the connections between work related stressors and mental health outcomes, little is known about the precise role that conflict with supervisors plays in manufacturing settings, where female employees may experience increased stress due to male-dominated leadership structures (Kinnear

& Naidoo, 2024; Yusof et al., 2023). Furthermore, not much research has looked at work-to-family conflict as a mediating factor in the link between workplace stressors and mental health, especially in Malaysia, where traditional family roles are still prevalent. In addition, no thorough theoretical framework in the literature integrates the combined effect of work-to-family conflict, supervisor conflict, and work stress on psychological well-being. These limitations highlight the need for more holistic and context-specific studies on how concurrent workplace stressors affect the mental health of Malaysian women factory workers. This study aims to fill that gap by integrating theory and empirical methods to analyze the interrelations between work stress, conflict with the supervisor, conflict between work and family, and mental health outcomes.



1.2 Problem Statement

Mental health at work is a growing concern everywhere, but in Malaysia's manufacturing sector, the needs of female employees are still often ignored in research. Women make a large contribution to the industry, but most studies about job stress do not look closely at the special challenges women face due to social and cultural expectations (Hamzah et al., 2023). Research in Malaysia usually uses results from groups with more men or from jobs in other sectors like healthcare, services, or teaching. This means we still do not understand what female factory workers go through in their unique settings. There is a clear gap in knowing how factory rules, strict work shifts, and top-down management mix with cultural pressures and family duties that women continue to handle (Ma et al., 2025). Research from other countries shows women at work often suffer more from stress, depression, and burnout (Farhane-Medina et al., 2022; Sharma & Kapur, 2022). Still, studies from Malaysia are limited and scattered. Because of this, the specific problems women face in factories are not fully explained or backed up with data, even though more evidence shows women have higher mental health risks than men.

Another problem is that research often looks at each workplace stress factor alone. It does not show how stress factors might combine and make each other worse. For example, we know that too much work, unsafe conditions, and bad environments can hurt health and lower output (Saleh & Shahidan, 2023; Zurnizam et al., 2024). But we know less about how these problems link with supervisor conflicts, which are common in factories with strict management structures (Yusof et al., 2023). Issues with supervisors are not just personal. They often come from male-centered management, which can make it harder for women to speak up or ask for help (Suhaimi et al., 2023). Losing support at work makes people more stressed and lowers their motivation (Macias-Velasquez et al., 2021). Also, in Asian countries, many women still do most of the family care, leading to high levels of work-to-family conflict (Yeo et al., 2022; Kinnear & Naidoo, 2024). But research rarely looks at how work stress, supervisor problems, and family conflict together affect women's mental health. Most studies only show how one factor can be harmful, not how all of them may combine, especially for women in Malaysian factories.

There are also problems with how much research is done. Many studies on workplace stress use surveys that cover many types of jobs or focus on groups like teachers, healthcare staff, or office workers (Lee & Lai, 2020; Jabbar et al., 2024). While useful, these do not show what happens in factories, where routines, repetitive work, and close supervision cause special kinds of stress (Rotimi et al., 2022). Most research looks at things like work stress or work-to-family conflict by themselves and does not examine how these issues connect or overlap (Lyu & Fan, 2020). Many studies are mainly descriptive. They tell us how common stress is, but not how stress

factors interact in Malaysia's culture and workplace structures. Even when factory workers are studied, women's experiences are often missed because the samples have more men (Hamzah et al., 2023). This makes it difficult to design real solutions for women in factories, who may have several stress problems at once.

Another big gap is the lack of a strong theory in much of the past research. Most studies only show connections between stress and outcomes but do not explain how or why these things happen (Bakker et al., 2023; Lee & Lai, 2020). For example, some studies link work stress to bad job conditions, or work-family conflict to problems for correctional officers, but these reports do not give deeper reasons (Loudoun et al., 2024; Lambert et al., 2020). Without using a strong theory, any action to help workers will be piecemeal and short-term. The Conservation of Resources (COR) theory (Hobfoll, 1989; Hobfoll et al., 2018) helps us understand how losing things like time, energy, and support at work and at home can make mental health worse. But researchers have not used this theory enough to study women in Malaysia's factories.

All these issues show there is a large gap in knowledge and action. We do not have enough evidence about how work stress, conflict with supervisors, and work-to-family conflict together affect the mental health of female factory workers in Malaysia. Research from inside and outside Malaysia points to these as key issues for women's well-being. This missing information stops workplaces from creating real solutions for women and leads to ongoing stress, more sick days, and people leaving their jobs (Hamzah et al., 2023; Saleh & Shahidan, 2023). This study aims to fill that

gap by carefully studying the links between these three types of stress and mental health, using a survey and the COR theory as the guide. By focusing on female workers in Malaysia's factories, this study will give clear, local insights for a group that is rarely studied, help build stronger theory, and give practical advice for workplaces and policy makers. The goal is to help build healthier, fairer work environments that understand and support the unique challenges women face in manufacturing.



1.3 Research Question

1. What is the relationship between work stress and mental health among female workers?
2. What is the relationship between conflicts with supervisors and mental health among female workers?
3. What is the relationship between work-to-family conflicts and mental health among female workers?

1.4 Research Objective

1. To study the relationship between work stress and mental health among female workers.
2. To study the relationship between conflicts with supervisors and mental health among female workers.
3. To study the relationship between work-to-family conflicts and mental health among female workers

1.5 Significant of Study

This study matters because it shines a light on mental health problems faced by women who work in Malaysia's factories, a group often left out of research. Women in this sector deal with tough work demands, strict routines, and top-down management, while still managing family and care duties at home. These combined pressures make them more likely to face stress, burnout, and mental health issues (Hamzah et al., 2023; Zurnizam et al., 2024). By looking closely at work stress, problems with supervisors, and work-to-family conflict, this study shows what daily life is like for women in factories. Here, the mix of work conditions and social expectations makes things even harder. This research comes at the right time because manufacturing is key to Malaysia's economy, yet there is not enough focus on the well-being of women workers. The results give real evidence that can help employers and policymakers see how job pressures harm women's mental health and how this, in turn, affects how well companies do.

The findings of this research can guide employers to notice and address the true struggles faced by women at work. When companies understand how conflict with supervisors or family duties lead to stress, they can make changes that matter. For instance, managers can learn how to handle conflicts better and be more sensitive to women's needs. Companies can also offer flexible work hours or support for workers with families to help lessen work-to-family conflict. Past studies prove that good supervisors and healthy workplaces help reduce stress, lower turnover, and boost loyalty and well-being (Suhaimi et al., 2023; Yusof et al., 2023). Many factories focus

only on getting the job done, but this research shows that taking care of women's mental health brings better results for everyone in the long run. Knowing these links gives companies a solid base to create better policies that fight absenteeism, lower the stigma about mental health, and build fairer workplaces.

This study also adds something new to the academic field, especially about women workers in Malaysia. While global research has looked at the links between work stress, conflicts, and mental health (Farhane-Medina et al., 2022; Bakker et al., 2023), Malaysian research is often scattered or mostly about other sectors like healthcare or education (Lee & Lai, 2020; Jabbar et al., 2024). Very few have looked at how several types of workplace stress together affect women in factories. By using Conservation of Resources (COR) theory (Hobfoll, 1989; Hobfoll et al., 2018), this study fills a big gap and gives future researchers a way to study how work rules, supervisor issues, and family demands connect and impact mental health. The findings will be useful for future studies on women's stress in factories and for leaders who want to create fairer, healthier workplaces in Malaysia.

1.6 Scope of study

This study focuses on certain variables, a specific setting, the people involved, and a clear method. The research looks at the links between three main factors, work stress, conflicts with supervisors, and work-to-family conflict, and one outcome, which is the mental health of female workers. These factors were chosen because both global and Malaysian research shows each one can affect mental health, but few studies have looked at them all together in Malaysia's manufacturing sector (Hamzah et al., 2023; Zurnizam et al., 2024; Yusof et al., 2023). Work stress means dealing with heavy workloads, tight deadlines, and poor working conditions. Conflicts with supervisors involve strained relationships with bosses, often due to bad communication or lack of support. Work-to-family conflict describes what happens when long hours and fixed schedules make it hard for women to take care of their families. Mental health here means the level of stress, anxiety, or emotional tiredness female workers feel, which is common in high-pressure jobs (Jabbar et al., 2024). By looking at all these factors together, the study gives a complete view that matches what women in factories really experience.

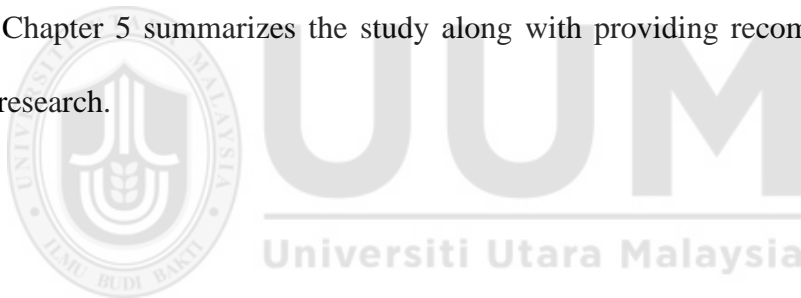
The research takes place in Senawang, Negeri Sembilan, which is a busy manufacturing area in Malaysia. The chosen site is Careglove Global Sdn. Bhd., a glove-making company with many women employees. The people in the study are female workers from this factory. They come from different age groups, marital backgrounds, education levels, years of work, and shift patterns. This mix helps the study show a wide range of views from women who manage both work and family

life. This focus is important because manufacturing is a major part of Malaysia's economy, but the roles of women in these jobs often get ignored in both research and policy (Medina, 2023; World Economic Forum, 2023). By looking at one company in Negeri Sembilan, the research is easier to manage but still offers lessons that can apply to other factories like it across the country.

The method used is a quantitative survey. Structured questionnaires are used to collect data from workers. This method allows the study to test the links between different stress factors and mental health in a solid way. The questions come from tools that have been proven to work in earlier studies, such as the Job Demand model, burnout scales, and work–family conflict frameworks (Greenhaus & Beutell, 1985; Karasek, 1979; Maslach & Jackson, 1981). The study uses simple random sampling so every worker has an equal chance to take part. The aim is to get at least 100 responses, which should give strong and trustworthy results. Data is analyzed using SPSS software, with both basic statistics and more advanced tests like correlation and regression to check the study's ideas. By keeping the scope clear on these methods, the study makes sure its results are solid, useful, and truly focused on showing how work stress, supervisor issues, and work-family conflict affect women's mental health in Malaysia's factories.

1.7 Organizational of the Thesis

This study includes five chapters. The first chapter covers the background of the thesis, problem statement, research questions, research objectives, scope of study, and significant of the study. The upcoming chapter which is chapter 2 dives into the existing literatures to understand better about the complicated issues along with the study's hypothesis as well. The chapter 3 explains the method of data collection, and data analysis technique. Chapter 4 describes the analysis of data and findings of the study. Chapter 5 summarizes the study along with providing recommendations for future research.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter addressed the existing literature to understand better about the complicated issues of work stress, disagreements with supervisors, work-to-family conflicts, and mental health among female workers in the manufacturing industries. Given the unique problems that female workers encounter in this sector, the literature review seeks to define and synthesise findings from previous research on these topics, laying the groundwork for understanding how these factors intersect and affect the well-being of this group. By evaluating pertinent research, theories, and documented case examples, this chapter aims to emphasise not just the presence and effect of these difficulties, but also the need of focussing on female workers in manufacturing, a population that is frequently disregarded in traditional workplace studies.

2.2 Work Stress

Work stress has emerged as a significant concern in the manufacturing sector, especially among female workers who often face additional social and familial pressures. Workplace stress is a widespread problem in Malaysia's manufacturing industry. Employees often face intense production targets, unsafe working conditions, and difficult relationships with their supervisors. These challenges not only affect job performance but also affect mental well-being. This study focuses on understanding that connection. Fadilah et al. (2025), Rohmah and Saefudin (2025) and Zurnizam et al. (2024) found that the work environment and the level of stress employees experience both have a strong influence on how well they perform in their jobs. Using a PLS SEM approach, their research showed that work stress has a clear and significant effect on job performance. Employees who were exposed to excessive amounts of stress due to workload, time pressure, and unsupportive work environments demonstrated low productivity and job involvement. Notably, the study also found that a negative work environment amplified the outcomes of stress, further showing that organizational conditions play a pivotal role in either escalating or mitigating levels of stress among workers.

In another research, Noordin et al. (2023), explored occupational stress and work-life balance among the food manufacturing industry in Selangor. The findings shown revealed that the most relevant factor of occupational stress was the work environment, followed by workplace interpersonal conflicts. Importantly, job demands were not a relevant stressor, which revealed that emotional and environmental factors

may have a more influential effect on employees' perception of stress. This concurs with the thesis's highlight that not only do job roles, but also relational and context predictors such as conflicts with supervisors and home responsibilities also influence stress and mental health in female workers. As a further illustration of this point, Saleh and Shahidan (2023), conducted a study of work stress among the staff of an electronics and electrical (E&E) production company in Melaka. The study also found that high stress leads to more workers missing work, higher staff turnover, and a drop in job performance. Zurnizam et al. (2024) highlight the need to address stress not just at the individual level, but also within the organisation and management, especially in industries that rely heavily on manual labour. The impact is even more worrying for women. Many female workers already carry the double load of work and home responsibilities, which puts them at greater risk for mental health problems.

2.3 Supervisors Conflict

Conflict with supervisors stands out as a major driver of workplace stress, especially in high-pressure industries like manufacturing. For women, the strain is often even greater because they not only deal with heavy workloads but also face expectations linked to their roles at home and in society. Yusof et al. (2023) explored how different ways of managing conflict influence the relationship between job demands and employee performance in Malaysian SMEs, including factories. They found that supervisors have a significant impact on the level of stress employees experience.

When managers use avoidance or a dominating approach, stress levels rise and performance drops. In contrast, supervisors who take a cooperative stance help lower stress and support their workers' well-being. The evidence points to one thing: the supervisor–employee relationship shapes how conflict is handled at work. When that relationship is weak, tensions grow. Hasan et al. (2021) showed that poor communication and problematic leadership styles often leave conflicts unresolved. Micromanagement and a lack of support fuel dissatisfaction and stress. These strains are heavier for women, who carry responsibilities at both work and home. Sarah (2025) reached a similar conclusion. In demanding roles, low supervisor support is closely tied to burnout, especially in SMEs and manufacturing. Using the Job Demands–Resources (JD-R) model, Sarah explained how weak communication and little empathy from supervisors drain emotional resources and lead to exhaustion for women managing multiple roles. By contrast, supportive supervisors buffer stress and sustain engagement.

Suhaimi et al. (2023) examined supervisors' influence on work–life balance. They found that unfair treatment, limited support, and poor communication increase turnover intentions and harm mental health, a pattern that is pronounced in manufacturing with its long hours and male-dominated management. Macias-Velasquez et al. (2021) added another layer: managers with low emotional intelligence often miss early warning signs of stress, allowing conflicts to persist. Leaders who are emotionally attuned, however, defuse disagreements and protect team well-being. Taken together, these studies show that supervisors sit at the center of how workplace conflict unfolds. For women in manufacturing, who juggle job and home roles, a

supervisor's conduct directly shapes stress levels, job satisfaction, and mental health. Managerial conflict is not merely a clash of personalities; it is a structural issue with serious consequences for women's well-being at work.

2.4 Work-to-Family Conflict

Work-to-family conflict (WFC) is a type of inter-role conflict that happens when the demands of work interfere with responsibilities at home (Greenhaus & Beutell, 1985). This conflict is especially relevant for women in manufacturing, where long shifts, extended hours, and rigid schedules clash with social expectations around caregiving and domestic roles. Yeo et al. (2022), in a study focusing on women workers in Malaysia's manufacturing sector, found that inflexible schedules and long working hours created significant conflict with family responsibilities. Based on their findings, WFC leads to low job satisfaction, emotional exhaustion, and even absenteeism, hypothesizing that women face unique stressors that directly impact their performance and well-being in the workplace. Kinnear and Naidoo (2024), take it a step further and identify the spill over consequences of WFC on psychological well-being, in such a way that when work intrudes into family life, particularly for women holding high-strain jobs, the result is typically burnout and lower life satisfaction. This aligns with the thesis's focus on mental health, as the inability to balance work and home life can lead to long-term psychological distress.

In a regional context, Asbari et al. (2020), studied Indonesian female employees and found a direct negative impact of WFC on job satisfaction and performance. Although the study was outside Malaysia, the socio-cultural parallels particularly in patriarchal Southeast Asian societies make the findings applicable. The study concluded that female employees experiencing high WFC were more likely to report emotional stress, disengagement at work, and lower productivity. Lyu and Fan (2020) showed that when supervisors do not demonstrate family-supportive behaviors, work-to-family conflict (WFC) grows. In many factories, managers push hard to meet production targets and overlook employee well-being. Without real support systems, this focus makes WFC worse, and women feel the strain most. Zayed et al. (2021) found that the demands of factory work often spill into home life. Heavy workloads, little control over daily tasks, and rigid shifts are key drivers of WFC. These conditions are common in manufacturing and reflect deeper structural issues that make it hard for women to balance work and home roles. Their study also showed that WFC is a major source of stress and mental health problems, especially for women working under inflexible schedules and with limited support. Expecting employees to cope on their own is not reasonable. Employers should adopt family-friendly policies and ask supervisors to lead with empathy and flexibility. With these changes, companies can help women manage competing roles and protect their mental health at the same time.

2.5 Mental Health among Female Workers

The mental health of workers, especially women in factories, is getting more attention from researchers. This is because factory work is often stressful and women face extra challenges at work. Female workers in manufacturing are at higher risk of mental health problems because they work long hours, struggle to balance work and family, lack support at work, and sometimes face gender discrimination. Hamzah et al. (2023) found that for women in industrial jobs, physical tiredness, work stress, and not having control at work are strong reasons for depression, anxiety, and burnout. The authors emphasize that female staff often experience double burdens between home and work, which exposes them to psychological exhaustion and reduced psychological well-being. Correspondingly, in Malaysian settings, Jabbar et al. (2024), had studied mental health threats to female factory workers and concluded that organizational neglect of emotional well-being is the cause for rising levels of anxiety and stress disorders. The study further documented stigma of mental illness at workplace levels that tend to discourage female workers from seeking support. This results in prolonged distress and lower productivity. Similarly, Sharma and Kapur (2022), analyzed psychological distress among women in industrial occupations, finding a strong link between lack of workplace support systems and poor mental health outcomes. The study identifies that job insecurity, long working hours, and pressure to produce high outputs enhance women's stress levels in physically and mentally demanding manufacturing jobs.

A conference paper by Lee and Zaidi (2022) during the IEEE International Conference on Industrial Engineering and Engineering Management focused on mental workload and performance in Malaysian factory employees. It argued that mental workload is significantly higher in female employees, especially for those with care responsibility at home. The study suggested that job control and limited access to wellness support at the organizational level aggravate mental illness issues in this category. Sznajder et al. (2022) discovered, in their international comparative study, that repetitive work exposure, shift work, and strict working hours negatively affect mental health in industrial settings. Even though the study encompasses participants from outside Malaysia, it applies to the manufacturing setting in Malaysia, particularly to women who possess both production and domestic duties. The link between workplace stress and mental illness is also supported by Lee and Lai (2020), who concluded that female teachers experienced increased emotional exhaustion and mental illnesses compared to their counterparts, primarily due to limited coping abilities and lack of effective mental health interventions in the work environment. Rotimi et al. (2022) studied how the way factory spaces are set up can affect stress and mental health. They found that poor conditions, like too much noise, bad lighting, and uncomfortable workspaces, are common problems in factories. These issues are often ignored and not fixed, leading to high stress and poor mental health, especially for women workers. The literature shows that mental health problems among Malaysian female factory workers are caused by many different factors. These include how the workplace is run, long hours, a poor balance between work and family, job insecurity, and not enough support from the workplace or supervisors. When all these

problems happen together, they do not just hurt mental well-being. They also affect staff retention, productivity, and overall harmony at work.

2.6 Research Framework and Hypothesis Development

The relationship between work stress and mental health has been widely documented in occupational health literature, particularly in high-demand sectors like manufacturing. Work stress refers to psychological and emotional strain caused by overwhelming job demands, time pressure, physical fatigue, and unsafe or unsupportive work environments. These stressors have a direct impact on an individual's mental health, often resulting in anxiety, depression, emotional exhaustion, and poor sleep quality (Karasek, 1979; Lazarus & Folkman, 1984; Maslach & Jackson, 1981). Research in Malaysia supports these claims. For instance, Zurnizam et al. (2024) demonstrated that excessive workloads and poor workplace design significantly affect job satisfaction and psychological well-being among manufacturing workers. Similarly, Saleh and Shahidan (2023) found that work stress in E&E manufacturing was associated with higher rates of absenteeism and job withdrawal. Noordin et al. (2023) reported that emotional stress stemming from production demands and poor interpersonal relationships had more psychological impact than job demands alone. This reinforces the idea that emotional and contextual stressors, rather than task complexity, are the key contributors to mental health issues. In addition, Jabbar et al. (2024) reported that many female factory workers suffer in

silence due to stigma, which worsens symptoms and delays access to care. Studies by Sharma and Kapur (2022) and Lee and Zaidi (2022) also confirm that prolonged exposure to unmanaged stress in female workers leads to burnout, lowered life satisfaction, and deteriorating mental health. Furthermore, Hamzah et al. (2023) and Sznajder et al. (2022) have shown that long hours and poor ergonomic conditions lead to both physical and psychological strain in women. Literature consistently shows a negative relationship between work stress and mental health. The items in the questionnaire used in this study also measure the extent to which work pressure, deadlines, and exhaustion affect emotional well-being. Therefore, the proposed hypothesis is as follows:

H1: Work stress is negatively associated with the mental health of female workers in the manufacturing industry.

Conflict with supervisors is another key factor influencing employee mental health, particularly in hierarchical and male-dominated workplaces. Supervisor conflict occurs when communication breaks down, expectations are unclear, or employees feel unsupported. Such tensions often reduce access to emotional and instrumental resources, leaving employees feeling undervalued, over-monitored, or even harassed (Spector & Jex, 1998; House & Rizzo, 1972). In the Malaysian manufacturing context, Yusof et al. (2023) observed that ineffective conflict-handling styles by supervisors, such as dominance or avoidance, lead to increased workplace tension and mental fatigue. Sarah (2025) also noted that low supervisory support in high-demand SMEs

leads to burnout, especially among female employees with caregiving responsibilities. Macias-Velasquez et al. (2021) revealed that emotionally unintelligent supervisors fail to detect or mitigate stress, resulting in long-term employee disengagement. Suhaimi et al. (2023) found that toxic supervisory behaviour, such as unfair treatment or micromanagement, was strongly linked to poor psychological outcomes and turnover intentions. Hasan et al. (2021) emphasized the need for communication training among supervisors in manufacturing, noting that conflict resolution skills are directly tied to employee well-being. Research by Rotimi et al. (2022) and Loudoun et al. (2024) shows that poor relationships with supervisors can lower morale and motivation, which leads to more stress and symptoms of depression. For many women, reporting problems with supervisors is not easy. They may worry about losing their jobs, facing backlash, or being seen as troublemakers (Hing et al., 2023). When female workers do not get enough support from their immediate supervisors, they find it harder to cope and recover from stress. This lack of support can drain their emotional strength even faster (Hamouche, 2023; Hobfoll et al., 2018). Given the clear evidence and the survey questions that measure supervisor support and conflict, it makes sense to suggest that conflict with supervisors has a negative effect on mental health. Based on this, the proposed hypothesis is:

H2: Conflict with supervisors is negatively associated with the mental health of female workers in the manufacturing industry.

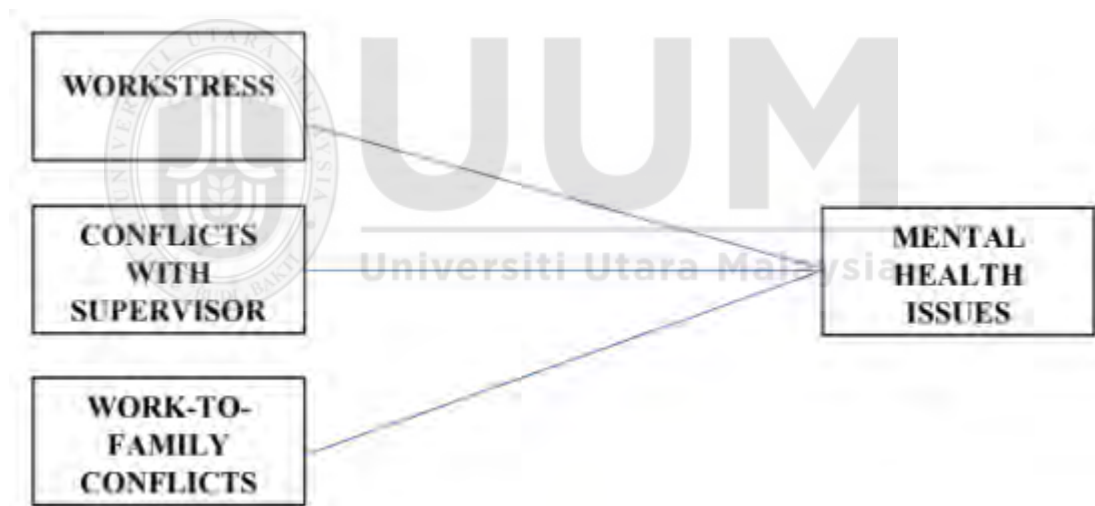
Work-to-family conflict is a major source of stress for many women, especially those who juggle both job and home responsibilities. This conflict happens when work demands get in the way of family roles, often leaving workers feeling overwhelmed, guilty, or unable to meet expectations. Greenhaus and Beutell (1985) were the first to describe this kind of conflict between work and family, and many studies since then have shown its clear connection to mental health struggles. In Malaysia, Yeo et al. (2022) found that long hours and inflexible shifts in factories often cut into family time, leading to emotional exhaustion. Kinnear and Naidoo (2024) found that when work-to-family conflicts keep building up, they often spill over into daily life, leading to burnout and a drop in overall life satisfaction. Lyu and Fan (2020) noted that this problem is even more severe for women, especially when they do not receive enough support from their supervisors. In Southeast Asia, Asbani et al. (2020) reported that high work-to-family conflict among female employees lowers job satisfaction and leads to greater emotional distance from their jobs. Zayed et al. (2021) also highlighted that strict schedules and a lack of control at work are major reasons behind both work-to-family conflict and increased mental strain. Frone et al. (1992) added that when work demands prevent people from meeting family responsibilities, it creates lasting stress and slowly drains their mental energy. Research by Jabbar et al. (2024), Sharma and Kapur (2022), and Ma et al. (2025) points to a direct link between WFC and symptoms of depression, anxiety, and sleep disorders. Studies also suggest that the impact of WFC on mental health is more pronounced for women due to social norms and caregiving expectations (Zaidi & Lee, 2022; Artz et al., 2021). Since the questionnaire items in this study assess the degree to which job roles interfere with

family life, and prior literature supports a negative effect on mental health, the following hypothesis is proposed:

H3: Work-to-family conflict is negatively associated with the mental health of female workers in the manufacturing industry.

Figure 2.1

Research Framework of the Study



The negative direction of these hypotheses is not arbitrary but supported by both theoretical and empirical evidence. Conservation of Resources (COR) theory posits that individuals strive to retain and protect personal resources like time, energy, and emotional stability. When work stress, supervisor conflict, or family role strain threatens these resources, mental health deteriorates (Hobfoll, 1989; Hobfoll et al., 2018). The logic of this theory aligns closely with the structure of the current study's

framework, in which each stressor represents a form of resource depletion. Positive phrasing, such as stating that work stress "positively influences" mental health, would contradict both the theoretical foundation and the empirical findings in literature. Moreover, the questionnaire items used in this study are negatively oriented, measuring negative outcomes such as anxiety, poor sleep, and emotional distress. Thus, the hypotheses are framed in the negative direction to ensure consistency between theoretical underpinnings, empirical evidence, and research instruments. Choosing this phrasing also provides a clear path for intervention. If the relationships are found to be negative and significant, interventions can aim to reduce stressors to improve outcomes. Therefore, the hypotheses are logically and methodologically aligned with the study's objective: to explore how workplace stressors undermine mental health among female workers in the Malaysian manufacturing industry.

2.7 Underpinning Theory

To understand the psychological mechanisms through which workplace stressors impact mental health, this study adopts the Conservation of Resources (COR) Theory, developed by Hobfoll (1989). COR theory is one of the most widely used frameworks in occupational stress research. It postulates that individuals strive to obtain, retain, and protect resources, and that psychological stress occurs when there is a threat of resource loss, actual resource loss, or failure to gain resources after significant effort has been invested (Hobfoll, 1989). Resources in this context refer to objects, personal characteristics, conditions, or energies that are valued by individuals or serve as means

to obtain other valued resources (Hobfoll, 2001). This theory is particularly useful in explaining the stress–strain relationship observed in the manufacturing sector, especially among female workers, who often navigate complex and overlapping work and family roles. Female employees in Malaysian manufacturing environments commonly face long working hours, job insecurity, limited autonomy, supervisor pressure, and work-life imbalance.

One of the main ideas in this study is work stress. This covers the physical, mental, and emotional strain that comes from heavy demands at work. According to Conservation of Resources (COR) theory, as work stress rises, people have to use more of their energy and emotions to cope. Over time, this constant effort drains their resources, making them less able to handle future challenges. This can leave them more open to mental health problems like anxiety, depression, or burnout (Hobfoll et al., 2018). For women in manufacturing, these pressures can be even stronger because of gender expectations and the physical nature of the job. Research shows that repetitive work, strict production schedules, and high targets can wear workers down, especially if there is little support. Without chances to rest or be recognised, and with no strong support system, this ongoing stress can lead to chronic mental strain and declining well-being (Hobfoll et al., 2018).

Conflict with supervisors is another big source of stress that fits the COR theory. Supervisors usually provide important support, whether it is information, encouragement, or practical help. But when managers are overly controlling, communicate poorly, or show little respect, relationships with staff break down. This not only removes a key source of support but can also cause emotional harm, lowering

self-esteem and creating extra stress. Losing social support at work is a serious problem, as COR theory highlights its role in protecting mental health (Hobfoll, 2001). Female workers are especially at risk. Many do not speak up about their struggles because they worry about job security, being punished, or being seen as difficult. This silence can drain their resources even more, making psychological distress worse. Hobfoll et al. (2018) stress that support at work acts as a shield against burnout and emotional problems. Without it, workers are more likely to struggle.

Work-to-family conflict (WFC) is the third main factor affecting mental health in this study. WFC happens when job demands spill over into family life. For women, especially those who care for others at home, this conflict can bring emotional exhaustion and guilt. COR theory sees this as a loss of resources across different parts of life, when stress at work drains the energy and time needed for family, it makes mental strain worse (Westman et al., 2004). This is especially true in Malaysia, where traditional gender roles still expect women to take on most housework and caregiving. Many female factory workers go home after long shifts only to do unpaid household tasks, leaving them with little time or energy to rest or look after themselves. The loss of these key resources, time and emotional energy, harms their mental health. COR theory helps explain how these overlapping and ongoing resource losses can speed up problems like anxiety, long-term tiredness, and even depression.

2.8 Conclusion

This chapter has discussed the theoretical and empirical literature that is applicable in understanding the mental health problems of women employees in the manufacturing industry. The chapter started with defining the main concepts of mental health, work stress, supervisor conflict, and work-to-family conflict, and then elaborated on the COR theory, which offers a useful framework through which one can understand how people react to cumulative stressors at work. The review also highlighted a surfeit of empirical studies demonstrating the negative impact of work stressors on workers' psychological well-being. What the literature lacks, however, is a focus on gendered experiences in the Malaysian factory setting. More particularly, women workers in factories are underrepresented in scholarly literature despite their vulnerability to both structural and interpersonal stressors. Moreover, while earlier research has identified individual variables such as work stress, supervisor conflict, and work-to-family conflict, few studies have considered their combined effects on mental health or used a theoretically driven model to guide the analysis. These gaps in research indicate the need for a more context-specific and detailed study. The current study seeks to address these limitations by examining how different workplace stressors such as work stress, supervisor conflict, and work-to family conflict accumulate to affect the mental health of Malaysian women workers in the manufacturing sector. The methodology followed to investigate these relationships is described in the next chapter.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the methodological approach used to investigate the relationships between work stress, supervisor conflict, and work-to-family conflict and their impact on the mental health of female workers in the Malaysian manufacturing industry. The research is structured within a quantitative framework, employing a structured survey administered via Google Forms to collect primary data from female employees at Careglove Global Sdn. Bhd., glove factory in Senawang, Negeri Sembilan. The chapter begins by detailing the research design and continues with the research procedures, study location, population and sampling techniques, and inclusion and exclusion criteria. It also explains the instrumentation used to measure the study variables, data collection methods, and the statistical techniques adopted for data analysis, including descriptive statistics, Spearman correlation, and multiple regression analysis using SPSS software. Ethical considerations and methods to ensure the validity and reliability of the data are also presented.

3.2 Research Design

This study used a quantitative cross-sectional survey to examine how work stress, supervisor conflict, and work-to-family conflict relate to the mental health of women employed in a Malaysian glove factory. The design allowed us to measure the strength and direction of these links with numerical data and statistical tests. A quantitative approach fit the purpose because it offers an objective way to capture psychological experiences in a defined group and to see how different factors shape mental health (Bakker et al., 2023). We collected data directly from workers using a structured questionnaire delivered through Google Forms. Because the study was cross-sectional, all information was gathered at one point in time. This produced a clear snapshot of current experiences without changing any conditions, which is practical for real-world research on workplace stress. Similar designs are common in occupational health studies, especially those that focus on mental health and conflict in organizations (Hamzah et al., 2023; Suhaimi et al., 2023).

The first step in this research process was identifying a topic that addressed a critical gap in the literature. After consulting relevant research, discussions with academic mentors, and reviewing local mental health statistics and industrial demographics, the topic was refined to focus on the relationships between three specific stressors, work stress, supervisor conflict, and work-to-family conflict, and their collective impact on mental health. The choice to examine these variables was grounded in empirical studies and the Conservation of Resources (COR) theory (Hobfoll, 1989), which explains how individuals experience strain when their emotional, physical, or social resources are threatened or depleted. The research

problem was shaped to highlight female factory workers' vulnerability to stress and mental distress due to overlapping demands from work, family, and managerial expectations. The research objectives and hypotheses were constructed to test these relationships within a structured framework and guide the data collection and analysis.

Once the topic and conceptual framework were established, the next phase involved reviewing academic literature to identify validated instruments and relevant past findings. Sources were filtered to include recent studies (mostly 2020–2025) from reputable journals. During this process, validated scales were identified as suitable for measuring job stressors. These instruments were then compiled and adapted into a bilingual structured questionnaire using simple, culturally appropriate language. The survey was pilot-tested for clarity before distribution. Following that, a Google Form was created to allow respondents to participate confidentially and conveniently. All items were organized under five sections: demographics, work stress, supervisor conflict, work-to-family conflict, and mental health. Most items used a five-point Likert scale, except demographic questions, which used nominal or ordinal scales. The next step involved obtaining permissions and distributing the survey to the selected research location, Careglove Global Sdn. Bhd., a glove manufacturing company in Senawang, Negeri Sembilan. This company was selected because of its significant female workforce, structured manufacturing processes, and relevance to the study objectives. After securing verbal permission and informal cooperation from HR personnel, the link to the Google Form survey was distributed via internal communication platforms, with assurance that all responses would be anonymous and voluntary. The data collection was scheduled over a period of 2–4 weeks, allowing

enough time for participants to respond based on their shift cycles. During this period, reminders were sent weekly to encourage completion. Upon completion of data collection, responses were exported from Google Forms into SPSS for cleaning, coding, and statistical analysis. Finally, the interpretation of results was aligned with the COR theory to draw meaningful conclusions about how cumulative workplace stressors influence mental health among female factory workers in Malaysia.

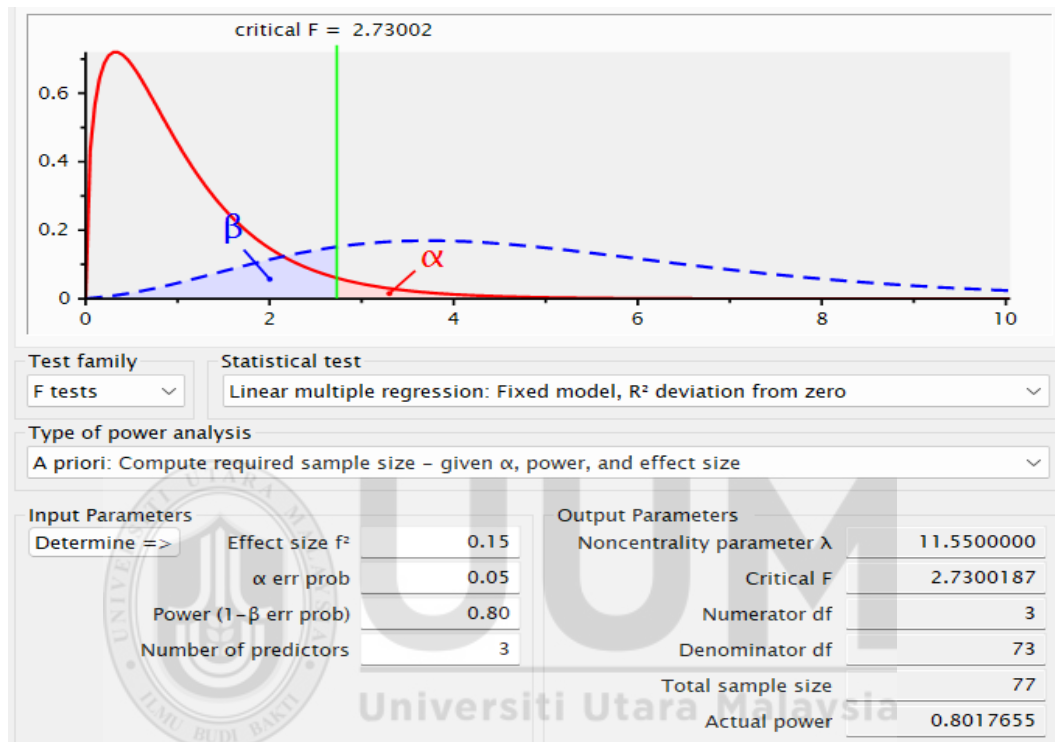
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3.3 Population and Sample Size

The target population for this study consists of female employees working at Careglove Global Sdn. Bhd., a glove manufacturing company located in Senawang, Negeri Sembilan. According to Cohen's (1992) guidelines and using G*Power software version 3.1, the minimum required sample size for a multiple regression analysis with three predictors (work stress, supervisor conflict, and work-to-family conflict) at an alpha level of 0.05, power level of 0.80, and a medium effect size ($f^2 = 0.15$) is 77 participants. However, to enhance reliability and reduce the margin of error, this study targeted a sample of at least 100 female workers, as larger samples increase the generalizability and stability of regression estimates (Hair et al., 2019). The sampling frame included all full-time female employees at the selected manufacturing plant. Demographic information such as age, marital status, education level, years of experience, and weekly working hours were also collected to contextualize findings and explore subgroup differences if needed.

Figure 3.1

GPower Sample Size Calculation



3.4 Sampling Techniques

This study used convenience sampling to recruit participants from the female workforce of Careglove Global Sdn. Bhd. The choice of this non-probability method was driven by practical challenges, such as limited access to the full employee list, rotating shifts, and time restrictions within the company. Convenience sampling allowed the researcher to approach workers who were available and willing to take part during their break times or off-duty hours. Although this method reduces the generalizability of results, it is widely accepted in workplace mental health studies where researcher access is limited (Noordin et al., 2023). The participants still

reflected a broad mix of demographic backgrounds, including differences in work experience, marital status, and education. By focusing on volunteers who fit the study's inclusion criteria, this approach maintained data quality while ensuring that the experiences of female factory workers in a real industrial environment were meaningfully captured.

3.5 Inclusion and Exclusion Criteria

The inclusion criteria focused on female employees who were currently working full-time at Careglove Global Sdn. Bhd., a glove manufacturing company in Senawang, Negeri Sembilan. Only those who had completed at least six months of employment at the company were considered eligible, as this duration allowed sufficient exposure to the working environment and its associated stressors. Participants also had to be Malaysian citizens and aged 18 years and above. The study intentionally included women from various departments, including production, packaging, quality control, and logistics, to reflect a diverse range of job roles and responsibilities. Additionally, the survey was designed to be accessible to individuals with varying education levels, from primary school to tertiary qualifications, and was presented bilingually in English and Bahasa Malaysia to ensure comprehension.

Exclusion criteria were applied to maintain the clarity and reliability of the data. Part-time employees, interns, and contract staff were excluded from the study, as their job structures and stress exposure levels were likely to differ significantly from those of full-time employees. Additionally, female employees who had not yet

completed their probationary period were also excluded, since their experiences may not fully reflect long-term exposure to work stressors and organizational dynamics. Respondents who submitted incomplete or duplicate survey responses were also excluded during the data cleaning phase, in line with standard practices to ensure data validity (Hair et al., 2019). Furthermore, women in senior management positions were excluded to reduce variation in stress exposure levels, as managerial roles often entail different types of work stress compared to operational roles. By applying these criteria, the study ensured that the final sample represented a relatively homogeneous group of female factory workers who were sufficiently exposed to the realities of shop-floor manufacturing work, thereby improving the internal validity of the study and strengthening the generalizability of the findings to similar industrial contexts in Malaysia.

3.6 Research Instrumentation

This study utilized a structured self-administered questionnaire to collect quantitative data on work stress, conflict with supervisors, work-to-family conflict, and mental health among female manufacturing workers. The questionnaire was developed in both English and Bahasa Malaysia to ensure clear understanding across all participants regardless of their educational background. It was distributed digitally using Google Forms, which allowed for efficient collection while maintaining respondent anonymity. The questionnaire was divided into three main sections. Section A gathered demographic details such as age, marital status, education level, years of

experience, current job position, and weekly working hours. These variables were measured using nominal and ordinal scales, with response categories provided for each. The purpose of this section was to place the findings in context and to see whether demographic characteristics influenced stress levels or mental health outcomes. These details also made it possible to conduct subgroup analyses, for example, to examine whether factors like marital status or length of shifts shaped how workers experienced stress or conflict.

Sections B and C focused on the main psychological variables of the study, which were measured using five-point Likert scales ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Section B included the three independent variables. Work stress was assessed through five items, three adapted from Karasek (1979), Cooper and Marshall (1976), Maslach and Jackson (1981), and Lazarus and Folkman (1984), along with two additional items that reflected specific workplace realities such as job pressure and task balancing. Supervisor conflict was measured with five items as well. Two items came from established scales developed by Spector and Jex (1998) and House and Rizzo (1972), while the remaining items assessed supervisory support, fairness, and communication. Finally, work-to-family conflict was measured with five items based on Greenhaus and Beutell (1985) and Frone et al. (1992). These items looked at how work demands interfered with family responsibilities, contributed to emotional exhaustion, and strained family relationships. Section C assessed the dependent variable, mental health, with five items adapted from prior validated instruments, including those developed by Goldberg and Williams (1988) and Kessler et al. (2002). These items captured emotional well-being, sleep quality, interest in daily

activities, and openness to seeking mental health support. All items were selected or adapted for cultural relevance, simplicity, and empirical validity, ensuring the instrument could effectively capture the realities of female workers in Malaysia's manufacturing sector.



Table 3.1*Instruments of the Study*

Section	Question Items and Source	Scale
A	Age	Ordinal Scale
Demographic Profile	Marital Status	Nominal Scale
	Education Level	Ordinal Scale
	Years of Experience in Manufacturing	Ordinal Scale
	Current Position	Nominal Scale
	Working Hours per Week	Ordinal Scale
B	Work Stress	Likert Scale
Independent Variable	I often feel overwhelmed by my workload. (Source: Karasek, 1979)	
	My job requires me to work under tight deadlines. (Source: Cooper & Marshall, 1976)	

I find it challenging to balance my tasks and responsibilities.

I frequently feel exhausted at work. (Source: Maslach & Jackson, 1981)

The pressure at my workplace affects my productivity. (Source: Lazarus & Folkman, 1984)

Conflict with Supervisors

Likert Scale

I often experience disagreements with my supervisor regarding work priorities. (Source: Spector & Jex, 1998)

My supervisor does not provide clear instructions or expectations. (Source: House & Rizzo, 1972)

I feel unsupported by my supervisor when I face challenges.

I find it difficult to communicate my ideas or concerns to my supervisor.

My supervisor's behavior negatively impacts my motivation at work.

Work-to-Family Conflict

Likert Scale

My job interferes with my ability to spend quality time with my family. (Source: Greenhaus & Beutell, 1985)

I often miss family activities or events due to work commitments.

Work-related stress spills over into my personal life. (Source: Frone et al., 1992)

I struggle to manage household responsibilities due to work demands.

My work schedule affects my relationships with family members.

C

Mental Health

Likert Scale

Dependent Variable:

I frequently feel anxious or stressed due to work-related issues. (Source: Goldberg & Williams, 1988)

My job affects my ability to sleep well.

I feel a lack of interest in activities I used to enjoy because of work stress.

My mental health has been affected by conflicts at work. (Source: Kessler et al., 2002)

I have considered seeking professional help to cope with work-related stress.

3.7 Data Collection Method

The data for this study was collected using a structured questionnaire distributed via Google Forms, allowing for broad reach and accessibility among participants working in the glove manufacturing industry. Prior to distribution, the questionnaire was carefully reviewed for content validity and pilot-tested with a small group of female factory workers to ensure clarity, relevance, and ease of understanding. The questionnaire was prepared in both English and Bahasa Malaysia, accommodating respondents with diverse educational backgrounds. Data collection was conducted over a 2 to 4-week period, ensuring sufficient time for participants to respond based on their availability and rotating shift schedules. The link to the survey was disseminated through internal communication channels with the informal support of the company's HR personnel. Respondents were provided with an introduction at the beginning of the form, which included the study purpose, confidentiality assurance, voluntary participation notice, and contact information for queries. Participants were clearly informed that they could withdraw from the survey at any point without facing any consequences. The survey was configured to prevent duplicate entries and to flag partial responses for later cleaning. To boost participation and keep the response rate high, we sent weekly reminders during the data collection period. After the survey closed, we exported all responses to SPSS (version 29) for cleaning and analysis. At this stage, we removed incomplete and repeated cases to protect the integrity of the dataset. We chose an online approach on purpose. It was efficient, respected participants' time, and reduced disruption to their work schedules. The use of digital tools, together with clear communication and an ethical process, allowed us to collect reliable, high-quality data from a workforce that is often hard to reach during working hours.

3.8 Data Analysis Method

The survey data collected through Google Forms were exported into SPSS version 29 for preparation and analysis. Descriptive statistics were used to summarise the respondents' demographic profiles. Frequencies, percentages, means, and standard deviations were calculated for variables such as age, marital status, education, years of experience, job position, and weekly working hours. These descriptive results provided a clear overview of the sample and highlighted general patterns in the work experiences of female employees in the manufacturing sector. The analysis also reported central tendencies and dispersions for all Likert-scale items related to work stress, supervisor conflict, work-to-family conflict, and mental health. This offered an initial picture of how participants perceived their work conditions and the emotional states linked to those experiences.

After completing the descriptive analysis, inferential statistics were used to test the three main hypotheses of the study. The connections between the independent variables, work stress, supervisor conflict, and work-to-family conflict, and the dependent variable, mental health, were first explored using Spearman's rank-order correlation. This non-parametric test was chosen because the data were collected on Likert scales, which are ordinal in nature. Spearman's method is well suited for identifying both the strength and the direction of relationships between variables without requiring the data to follow a normal distribution. Next, multiple regression analysis was conducted to assess the combined and individual predictive strength of each independent variable on mental health outcomes. This allowed for the identification of which stressor had the most significant impact when controlling for the others. The regression model helped test whether the relationships observed were statistically significant at the 0.05 alpha level, and whether the hypotheses could be supported. Regression

coefficients, R^2 values, and p-values were reported to interpret the model's fit and strength. This dual approach, correlation followed by regression, ensured that both the magnitude and direction of relationships were well-understood and grounded in robust statistical procedures. All results were interpreted in light of the Conservation of Resources (COR) theory, which frames stress as a function of resource depletion, and mental health as the psychological outcome of accumulated demands and reduced support.

3.9 Ethical Consideration

This study followed strict ethical standards at every step to make sure participants' rights, dignity, and safety were always protected. Before any data was collected, the researcher sought informal approval from the management of Careglove Global Sdn. Bhd. The research process was carefully planned to meet established ethical guidelines for work involving human subjects. At the start of the online survey, every participant saw a clear description of what the study was about and how it would be carried out. They were told that joining the survey was completely voluntary and that they could stop at any time without any negative consequences. Anonymity and confidentiality were guaranteed; the survey did not ask for names, employee numbers, or any personal details. All questions were written in a respectful and neutral tone, avoiding anything sensitive or invasive. To further protect privacy, responses were collected through secure online channels, with only the researcher having access to the data. No outside party was involved in handling or storing the information. The survey was designed to avoid causing emotional discomfort by excluding any triggering topics. Participants could also skip questions they felt uncomfortable with and were given contact details in case they needed to ask questions or share concerns. The data collected was used only for academic research and was never shared with the company or connected to job performance. These safeguards helped

create a sense of trust with participants and supported the integrity of the research. By focusing on voluntary participation, privacy, and respectful engagement, the study met the ethical standards expected in social science and workplace mental health research (Hamouche, 2023; Jabbar et al., 2024).

3.10 Validity and Reliability

Ensuring that research instruments are both valid and reliable is essential in any quantitative study, as this guarantees that the results are trustworthy. Validity means that the tool really measures what it is supposed to, while reliability is about whether it produces consistent results over time and in different settings. In this study, content validity was addressed by using items taken from established and widely recognised scales in workplace mental health research. These included the work stress scale developed by Karasek (1979), the supervisor conflict scale by Spector and Jex (1998), Greenhaus and Beutell's (1985) scale for work-to-family conflict, and mental health measures from Goldberg and Williams (1988) and Kessler et al. (2002). All items were carefully selected and adapted to reflect the real-life context of Malaysian women working in factories. To make sure the questionnaire was clear and accurate in both meaning and language, it was translated into Bahasa Malaysia and checked by bilingual experts. This not only improved clarity but also strengthened both face validity and translation accuracy, making the instrument much more appropriate for the intended group of participants.

Reliability of the instrument was assessed through a pilot test conducted before full data collection. The internal consistency of the Likert-scale items was evaluated using Cronbach's alpha, a commonly used reliability coefficient. A Cronbach's alpha value above 0.70 is considered acceptable, and each construct in the instrument, work stress, supervisor conflict,

work-to-family conflict, and mental health, met or exceeded this threshold, indicating that the items within each section reliably measured a common underlying factor. This suggests a high level of internal reliability across the four constructs. In addition, the structured format and clear instructions reduced measurement errors and increased consistency in responses. By using established scales, ensuring translation accuracy, and statistically confirming internal reliability, the study strengthened both the construct validity and reliability of its research instrumentation, thereby enhancing the credibility of the results.

3.11 Conclusion

This study used a quantitative cross-sectional survey design, with data collected through a structured questionnaire distributed via Google Forms to female employees at Careglove Global Sdn. Bhd. in Senawang, Negeri Sembilan. The chapter outlined the steps taken in selecting the topic, developing the instrument, choosing the sample, and carrying out data collection. It also described the research site, the criteria for including and excluding participants, and the ethical measures put in place to safeguard privacy and protect participants' rights. The questionnaire drew on established instruments from previous studies, adapted to the local context. All main variables were measured using five-point Likert scales, complemented by demographic questions to profile respondents. Data were processed and analyzed in SPSS, using both descriptive statistics and inferential tests such as Spearman correlation and multiple regression to examine hypotheses based on the Conservation of Resources (COR) theory. Reliability was tested using Cronbach's alpha, while validity was ensured by checking the relevance of the items and verifying translation accuracy.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

Chapter 4 reports how work stress, conflict with supervisors, and work-to-family conflict relate to the mental health of women in Malaysia's manufacturing sector. It begins with the response rate and a profile of the sample's demographics. Key categories such as age, tenure, and job role are outlined. It then describes the checks for validity, reliability, and normality used to confirm that the instruments were sound and the measurements trustworthy. Descriptive statistics follow to sketch the overall trends in participants' ratings for each core variable. The analysis then turns to hypothesis testing, applying Spearman's correlation and multiple regression within the Conservation of Resources (COR) framework. These tests provide concrete evidence on the ways overlapping job pressures shape psychological well-being. Together, the results form a coherent picture of risk and strain in this workforce. They also set up the arguments, practical implications, and action points developed in Chapter 5.

4.2 Response Rate

Table 4.1 summarizes the survey's response rate, which reflects both participation and data quality. From the 150 questionnaires distributed to female employees at Careglove Global Sdn. Bhd., 118 were returned, giving a 78.7 percent yield and indicating strong engagement from the target group. After cleaning the dataset to remove incomplete or unusable submissions, 111 valid cases remained for analysis, representing 74.0 percent of all forms distributed. Consistent with guidance from Sekaran and Bougie (2016), a response rate exceeding 70 percent is viewed as highly acceptable in social science work, particularly in workplace studies where shift patterns and time pressures can restrict employees' availability to participate. This strong response rate not only ensures sufficient statistical power for the analyses, as supported by the minimum sample size requirements generated via G*Power, but also enhances the reliability and representativeness of the findings. It indicates that the majority of the targeted participants were willing to share their experiences regarding work stress, supervisor conflict, work-to-family conflict, and mental health, suggesting that the topic is both relevant and meaningful to their lived realities in the manufacturing context.

Table 4.1

Response Rate

	Frequency	Percentage (%)
Total questionnaire shared	150	100.0
Total responses received	118	78.7
Total valid responses	111	74.0



4.3 Demographic Profile of the Respondents

Table 4.2 provides a detailed demographic profile of the 111 female respondents from Careglove Global Sdn. Bhd., offering important insights into the characteristics of the study population. The age distribution reveals a relatively balanced spread across the 20–29 years (26.1%), 30–39 years (27.9%), and 40–49 years (27.0%) categories, while those aged 50–59 years constituted 18.9 percent of the sample. This spread indicates that the workforce comprises a mix of younger and middle-aged employees, with a strong representation of women in their prime working years. The range of age groups in this study matters because age can shape how employees handle stress, adapt to challenges, and maintain resilience at work. Younger workers might struggle with finding their footing or building new skills, while older workers could feel strain from

physical tasks or the need to balance work and family care. This is especially true in the Malaysian manufacturing sector, where both age and life stage can play important roles in shaping stress experiences.

Looking at marital status, most participants were married (73.0%), with only 27.0 percent single. This pattern highlights the extra pressure married women face, as they often juggle demanding factory jobs alongside family and caregiving duties. Prior research points out that married women in manufacturing are especially vulnerable to work-to-family conflict, given the long hours and heavy domestic responsibilities (Yeo et al., 2022). The large proportion of married respondents means the study's findings are highly relevant to women managing both work and home life. At the same time, including single women in the sample captures the experiences of younger or unmarried workers, who might deal more with concerns about job security or workplace hierarchy.

In terms of education, the sample showed a fair amount of diversity. About 37.8 percent of participants held a diploma or certificate, while 26.1 percent had a university degree or higher. Another third (33.3 percent) had completed secondary school, and only 2.7 percent listed primary school as their highest education level. This spread suggests that women in this manufacturing company come from a mix of educational backgrounds. Those with higher education may be better equipped to cope with stress and solve problems, but they might also feel frustrated if their skills and qualifications are underused in their jobs. On the other hand, women with less education could feel less confident navigating workplace structures or asking for support, and so may face different types of stress. These differences allow the analysis

to capture a fuller picture of how mental health and stress can vary across education levels.

Work experience also varied among the participants. Nearly half (49.5%) had worked between one and five years, and 36.0 percent had six to ten years of experience. Only 8.1 percent had worked 11–15 years, while 6.3 percent had more than 15 years in the field. Most of the respondents, then, were early or mid-career workers who may still be finding stability in their manufacturing roles. Employees with less experience may not yet have strong coping skills or support networks, which can make them more vulnerable to stress. Those with many years on the job might experience the cumulative effects of ongoing demands in a tough work environment. The fact that most workers were relatively new highlights the need for strong organizational support, as the Conservation of Resources (COR) theory suggests that without it, employees may burn out faster when they do not have enough time or resources to adapt.

Regarding job roles, operators made up the overwhelming majority (70.3%), with much smaller proportions in leadership or managerial positions such as supervisors (5.4%), leaders (9.9%), and executives (9.0%). This imbalance reflects the typical structure of Malaysian manufacturing plants, where women are often concentrated in operational roles with repetitive tasks and close supervision. Such job characteristics are associated with higher risks of stress, fatigue, and limited autonomy, factors that directly link to poorer mental health outcomes (Hamzah et al., 2023). The limited representation of women in managerial or decision-making roles further reflects gendered occupational segregation, where opportunities for advancement are

fewer. This job-role concentration makes the perspectives of operators particularly important in understanding the realities of stress, supervisor conflict, and work-family challenges.

Finally, the working hours profile reveals that 88.3 percent of participants worked the standard 40 hours per week, while smaller groups reported extended hours, 9.0 percent working 45 hours, and a minority working 50 (0.9%) or 60 hours (1.8%) weekly. Extended working hours are a well-documented contributor to fatigue, work-to-family conflict, and reduced mental well-being, especially among married women with caregiving responsibilities (Ma et al., 2025). Although most respondents worked within the standard schedule, the presence of employees working long shifts demonstrates the variability in workload demands within the factory. This reinforces the need for family-supportive policies and flexible arrangements to address stress and conflict among those whose schedules exceed typical expectations. Taken together, the demographic data highlight a workforce that is predominantly married, operational-level, relatively well-educated, and early to mid-career, characteristics that shape how work stress, supervisor conflict, and work-to-family conflict impact mental health in the Malaysian manufacturing context.

Table 4.2*Demographic Profile*

Characteristics	Categories	Frequen cy	Percentage (%)
Age Group	20 - 29 years old	29	26.1
	30 - 39 years old	31	27.9
	40 - 49 years old	30	27.0
	50 - 59 years old	21	18.9
Marital Status	Single	30	27.0
	Married	81	73.0
Education Level	Primary School	3	2.7
	Secondary School	37	33.3
	Diploma / Certificate	42	37.8
	Degree or Higher	29	26.1
Years of Working	1 - 5 years	55	49.5
Experience in Manufacturing	6 - 10 years	40	36.0
	11 - 15 years	9	8.1
	More than 15 years	7	6.3
Current Position	Assistant Manager	2	1.8
	Executive	10	9.0
	Leader	11	9.9
	Officer	1	0.9

	Operator	78	70.3
	QA Executive	1	0.9
	Senior Executive	1	0.9
	Senior Manger	1	0.9
	Supervisor	6	5.4
Working Hours per Week	40 hours (8 hours per day)	98	88.3
	45 hours (9 hours per day)	10	9.0
	50 hours (10 hours per day)	1	0.9
	60 hours (12 hours per day)	2	1.8

4.4 Reliability Analysis

Table 4.3 reports the results of the reliability test using Cronbach's alpha, which measures the internal consistency of the items under each construct. The results indicate that all four constructs achieved alpha values above the accepted threshold of 0.70, as suggested by Nunnally and Bernstein (1994). Work stress, measured with five items, recorded an alpha of 0.849, while supervisor conflict with five items had an even higher reliability score of 0.893. Similarly, work-to-family conflict, assessed with four items, achieved an alpha of 0.851, and mental health, measured with five items, had an alpha of 0.838. These results demonstrate that the items under each construct consistently measured the same underlying dimension, ensuring that the

survey instrument is both dependable and suitable for further analysis. The strong reliability scores in this study matter because they confirm that the psychological measures used were accurate and consistent, even though concepts like work stress, supervisor conflict, and work-to-family conflict can be complex and personal. For Malaysian women working in factories, these issues are shaped by both workplace culture and broader social factors. By showing that the survey items were internally consistent, the study builds trust that the findings about how these stressors affect mental health are based on solid, dependable data. High reliability adds weight to the results from correlation and regression analyses and boosts the overall credibility of the study's conclusions.



Table 4.3

Reliability Test Results

Variables	No of Items	Cronbach's Alpha
Work Stress (IV1)	5	0.849
Conflict with Supervisors (IV2)	5	0.893
Work-to-Family Conflict (IV3)	4	0.851
Mental Health (DV)	5	0.838

4.5 Normality Analysis

Table 4.4 shows the normality test results using both the Kolmogorov-Smirnov and Shapiro-Wilk methods. For each of the four variables, work stress, supervisor conflict, work-to-family conflict, and mental health, the significance values were all below 0.05. This means that the data for these variables did not follow a normal distribution. The Kolmogorov-Smirnov statistics ranged from 0.112 to 0.178, while the Shapiro-Wilk values fell between 0.917 and 0.955, with all significance levels under the 0.05 threshold. This outcome confirms that the dataset does not meet the assumption of normality, a common occurrence in survey research using Likert-scale data, which tends to be ordinal rather than continuous in nature. The implication of these results is that non-parametric statistical methods are more appropriate for testing the study's hypotheses. Accordingly, Spearman's rank-order correlation was chosen instead of Pearson's correlation, as it does not assume normality and is well-suited for ordinal data. Similarly, the multiple regression analysis was conducted with caution, recognizing that non-normal data may affect the distribution of residuals. By acknowledging and addressing the violation of normality, the study ensures methodological rigor and aligns its analytical strategy with the characteristics of the data, thereby producing more reliable and valid interpretations of the relationships between work stressors and mental health.

Table 4.4*Normality Analysis Results*

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig,	Statistic	df	Sig,
Work Stress	0.178	110	<0.001	0.946	110	<0.001
Conflict with Supervisors	0.153	110	<0.001	0.917	110	<0.001
Work-to-Family Conflict	0.133	110	<0.001	0.951	110	<0.001
Mental Health	0.112	110	0.002	0.955	110	0.001

4.6 Descriptive Analysis

Table 4.5 presents the descriptive statistics for the study's key variables: work stress, supervisor conflict, work-to-family conflict, and mental health. The results show that the mean score for work stress was 3.7730 with a standard deviation of 0.57429, indicating that, on average, respondents leaned towards agreement with statements describing high workload, deadlines, and exhaustion. The relatively moderate standard deviation suggests that responses were fairly consistent across the sample, reflecting a shared perception of work-related strain among female factory workers. Supervisor conflict recorded a mean of 3.5892 and a standard deviation of 0.67033, showing that respondents generally agreed that issues with supervisors, such as lack of support or poor communication, were present. The slightly higher variability compared to work stress suggests that experiences of supervisor conflict may differ more strongly across individuals, possibly influenced by the specific nature of each worker's supervisory relationship.

Work-to-family conflict had the highest mean score at 3.8536 with a standard deviation of 0.66355, highlighting that respondents strongly agreed that their work interfered with family responsibilities, time, and personal well-being. This finding is consistent with the demographic profile, where a majority of respondents were married and therefore managing dual roles in work and family. The elevated mean value underscores the salience of work-to-family conflict as a pressing issue for women in the manufacturing sector, in line with past studies (Yeo et al., 2022; Ma et

al., 2025) that identified this stressor as one of the strongest predictors of mental health strain. The dependent variable, mental health, recorded a mean of 3.7927 with a standard deviation of 0.60996, suggesting that respondents generally reported negative psychological outcomes such as anxiety, sleep disruption, and reduced interest in activities. This mean value, being relatively high, indicates that mental health concerns are widely shared among participants, with variability across individuals reflecting differing coping resources and personal circumstances. Taken together, the descriptive statistics reveal a pattern in which work-to-family conflict was perceived as the most significant stressor, followed closely by work stress and supervisor conflict, all of which contributed to diminished mental health. The consistency of responses across the constructs demonstrates that the issues investigated in this study are systemic rather than isolated, reinforcing the relevance of applying the Conservation of Resources (COR) theory to explain how these overlapping stressors deplete workers' psychological and emotional resources. These descriptive insights provide a strong foundation for interpreting the correlation and regression analyses that further examine the relationships between these variables.

Table 4.5

Descriptive Statistics Results

Variable	Min	Max	Mean	Standard Deviation
Work Stress	1.60	5.00	3.7730	0.57429
Conflict with Supervisors	1.00	5.00	3.5892	0.67033
Work-to-Family Conflict	1.25	5.00	3.8536	0.66355
Mental Health	1.20	5.00	3.7927	0.60996

4.7 Spearman’s Rank Correlation

Table 4.6 presents the results of Spearman’s rank correlation analysis, focusing on the relationships between the three independent variables, work stress, supervisor conflict, and work-to-family conflict, and the dependent variable, mental health. The findings reveal that all three predictors are significantly correlated with mental health at the $p < 0.001$ level, highlighting their importance in shaping psychological well-being among female manufacturing workers. The correlation between work stress and

mental health was 0.388, indicating a moderate positive relationship. This suggests that higher levels of work stress were associated with poorer mental health outcomes such as anxiety, exhaustion, and sleep disruption. Although the relationship is not extremely strong, it is statistically significant and consistent with prior research showing that prolonged workload pressures and time demands undermine employees' psychological well-being (Saleh & Shahidan, 2023; Zurnizam et al., 2024). Supervisor conflict demonstrated a stronger correlation with mental health, with a coefficient of 0.479. This value reflects a moderate to strong positive association, showing that strained supervisory relationships, such as poor communication, lack of support, or unfair treatment, contribute substantially to negative mental health outcomes. This finding aligns with studies emphasizing the central role of supervisors in either buffering or amplifying workplace stressors (Suhaimi et al., 2023; Yusof et al., 2023). The relatively higher coefficient compared to work stress indicates that interpersonal dynamics with supervisors may be a more salient factor influencing mental health among these respondents.

Work-to-family conflict showed a strong connection with mental health, with a correlation coefficient of 0.469. This moderate to strong link suggests that struggles to balance job and family responsibilities are a major predictor of mental health issues. The impact is especially important considering that 73 percent of the participants in this study were married, highlighting how combined home and work roles can lead to stress, burnout, and emotional fatigue. This result is consistent with the work of Yeo

et al. (2022) and Ma et al. (2025), who also found that work-to-family conflict is a leading source of stress for women working in manufacturing and service sectors across Asia. Overall, the correlation analysis confirms that all three types of workplace stress, work stress, supervisor conflict, and work-to-family conflict, are closely linked to poorer mental health among female workers. Notably, supervisor conflict and work-to-family conflict have even stronger relationships with mental health than general work stress does. This pattern shows that stress for women in manufacturing is not just about workload, but involves multiple pressures from both work and home. These findings support the Conservation of Resources (COR) theory, which explains that when people lose resources in both their work and family lives, it weakens their resilience and increases the risk of mental health problems.

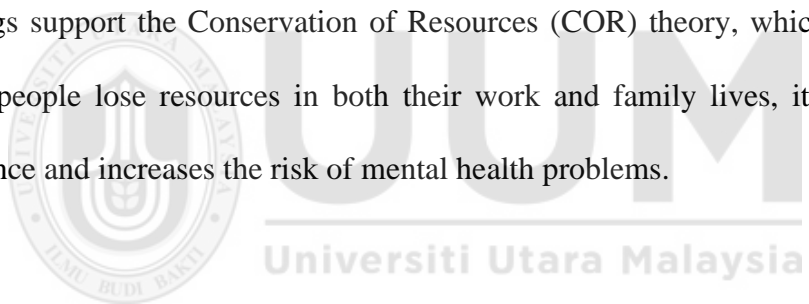


Table 4.6

Spearman's Rank Correlation for the Variables

			Work Stress	Conflict with Supervisors	Work-to- Family Conflict	Mental Health
Spe arm	Work Stress	Correlation Coefficient	1.000	0.342	0.525	0.388
		Sig (2-tailed)		<0.001	<0.001	<0.001

an's	N	111	111	111	111
rho					
Conflict	Correlation	0.342	1.000	0.487	0.479
with	Coefficient				
Supervi	Sig (2-tailed)	<0.001		<0.001	<0.001
sors					
	N	111	111	111	111
Work-	Correlation	0.525	0.487	1.000	0.469
to-	Coefficient				
Family	Sig (2-tailed)	<0.001	<0.001		<0.001
Conflict					
	N	111	111	111	111
Mental	Correlation	0.388	0.479	0.469	1.000
Health	Coefficient				
	Sig (2-tailed)	<0.001	<0.001	<0.001	
	N	111	111	111	111

4.8 Regression Analysis

Table 4.7 shows the results from the multiple regression analysis, which looked at how work stress, supervisor conflict, and work-to-family conflict together predict the mental health of women working in manufacturing. The analysis found a correlation coefficient (R) of 0.648, showing a strong link between these three factors and mental health. The R Square value of 0.420 means that 42 percent of mental health changes can be explained by these workplace stressors as a group. The adjusted R Square, which takes into account the number of predictors and the sample size, was 0.404. This proves the model is solid and reliable. In social science research, explaining over 40 percent of the variance in an outcome like mental health is considered substantial, since many personal and environmental factors also play a role (Hair et al., 2019). The estimate's standard error was 0.47087, indicating that the model's predictions were fairly accurate. Taken together, these results show that work stress, supervisor conflict, and work-to-family conflict have a meaningful and significant effect on mental health among female factory workers. This finding supports the idea from Conservation of Resources (COR) theory that overlapping stressors at work and at home can drain personal resources and lead to psychological strain.

Table 4.7

Model Summary of Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.648	0.420	0.404	0.47087

a. Predictors (Constant), Work-to-Family Conflict, Conflict with Supervisors, Work Stress

Table 4.11 shows the ANOVA results for the regression model, which tested whether work stress, supervisor conflict, and work-to-family conflict, as a group, have a real impact on mental health. The analysis produced an F-value of 25.636 and a significance level of $p < 0.001$, making it clear that the model is statistically significant. This means that these three factors, taken together, do in fact explain meaningful differences in mental health among women working in manufacturing. Their combined effects are not just a result of random chance but have a real and measurable influence on psychological well-being. This finding supports the study's framework, rooted in Conservation of Resources (COR) theory, by showing with data that stressors from both work and family life truly weaken mental health for female employees.

Table 4.8*ANOVA Results*

	Model	Sum of Squares	df	Mean Square	F	Sig
1	Regression	17.052	3	5.684	25.636	<0.001
	Residual	23.502	106	0.222		
	Total	40.554	109			

a. Dependent Variable: Mental Health

b. Predictors: (Constant), Work-to-Family Conflict, Conflict with Supervisors, Work Stress

Table 4.9 presents the coefficients of the multiple regression analysis, providing insights into the individual contributions of work stress, supervisor conflict, and work-to-family conflict in predicting the mental health of female workers. The constant (intercept) value of 1.080 indicates the baseline level of mental health when all independent variables are equal to zero. Among the predictors, work stress recorded a regression coefficient (B) of 0.171 with a standardized beta of 0.162 and a p-value of 0.083, which is above the 0.05 significance threshold. This result shows that, while work stress was positively related to mental health deterioration, its effect was not

statistically significant in this model. This suggests that, although work stress is a recognized challenge for factory workers, it may not exert as strong a direct impact on mental health when other stressors such as supervisor conflict and work-to-family conflict are considered simultaneously.

In contrast, supervisor conflict demonstrated a statistically significant effect on mental health, with a regression coefficient of 0.283, a standardized beta of 0.311, and a p-value of less than 0.001. This finding highlights that strained supervisory relationships, such as lack of support, unclear instructions, or unfair treatment, are one of the strongest predictors of mental health challenges among the respondents. The relatively higher beta value compared to the other predictors emphasizes the central role supervisors play in either buffering or amplifying workplace stress, reinforcing findings from previous studies (Suhaimi et al., 2023; Yusof et al., 2023) that identified toxic supervisory dynamics as a major source of psychological strain for women in hierarchical, male-dominated work environments.

Work-to-family conflict also showed a significant positive relationship with mental health problems, with a regression coefficient of 0.273, a standardized beta of 0.298, and a p-value of 0.005. This result indicates that female workers who reported greater interference of job demands with family responsibilities were more likely to experience anxiety, exhaustion, and reduced well-being. Given that 73 percent of the sample was married, this outcome is particularly meaningful, as it reflects the lived realities of women balancing caregiving duties with rigid manufacturing schedules. The relatively high beta value further underscores that conflicts between work and

family are nearly as impactful as supervisory relationships in shaping mental health outcomes. This aligns with prior research (Yeo et al., 2022; Ma et al., 2025) that emphasized work-to-family conflict as one of the most pressing stressors for women in Southeast Asian manufacturing contexts.

Overall, the regression coefficients confirm that supervisor conflict and work-to-family conflict significantly predict the mental health of female manufacturing workers, while work stress, though positively related, did not reach significance in the combined model. These results provide empirical support for the Conservation of Resources (COR) theory, which suggests that mental health declines when critical resources such as emotional support, time, and energy are depleted across both workplace and family domains. Importantly, the findings indicate that interpersonal and role-conflict stressors may have a more direct effect on psychological well-being than workload stress alone, emphasizing the need for organizations to address supervisory practices and family-supportive policies to protect female workers' mental health.

Table 4.9*Coefficients of Multiple Regression*

Model		Unstanda rdized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1080	0.330		3.274	0.001
	Work Stress	0.171	0.098	0.162	1.752	0.083
	Conflict with Supervisors	0.283	0.083	0.311	3.389	<0.001
	Work-to-Family Conflict	0.273	0.094	0.298	2.888	0.005

a. Dependent Variable: Mental Health

4.9 Summary of Hypothesis Testing

Table 4.10 summarizes the outcomes of hypothesis testing by consolidating the regression results for each proposed relationship between workplace stressors and mental health among female manufacturing workers. The findings indicate that H1, which proposed a negative association between work stress and mental health, was not supported ($p = 0.083$). Although the correlation analysis showed a significant relationship, the regression results revealed that work stress did not make a unique and statistically significant contribution when considered alongside supervisor conflict and work-to-family conflict. This suggests that while work stress is an important factor, its direct impact on mental health may be overshadowed by stronger interpersonal and role-based stressors. It also highlights that mental health challenges may arise less from workload intensity alone and more from how such demands interact with relational and family dynamics.

Conversely, H2, which hypothesized that conflict with supervisors is negatively associated with mental health, was supported at a high level of significance ($p < 0.001$). This confirms that poor supervisory relationships, characterized by lack of support, unclear communication, or unfair treatment, are a strong predictor of psychological strain. The significance of this finding aligns with the Conservation of Resources (COR) theory, as supervisors serve as critical sources of both instrumental and emotional resources. When these relationships are conflictual, employees experience a depletion of social and psychological resources, leading to increased

stress, burnout, and reduced well-being. For female factory workers, who often work under male-dominated management structures, the quality of supervisory relationships becomes especially important in shaping mental health outcomes.

Finally, H3, which proposed a negative relationship between work-to-family conflict and mental health, was also supported ($p = 0.005$). This result underscores the fact that balancing industrial work with family responsibilities places a heavy burden on women, many of whom are married and responsible for caregiving. The finding resonates with literature showing that work-to-family conflict is one of the most powerful predictors of psychological distress among working women (Yeo et al., 2022; Ma et al., 2025). Within the COR theory, this conflict reflects cross-domain resource loss, where time and energy spent at work reduce the resources available for family and self-care, leading to a decline in mental health. Taken together, the hypothesis testing results emphasize that supervisor conflict and work-to-family conflict are the most critical determinants of mental health among female manufacturing workers, while work stress alone, though relevant, is not sufficient to explain psychological outcomes when these stronger stressors are present.

Table 4.10

Summary of Hypothesis Testing Results

Hypotheses	P-value	Decision
H1: Work stress is negatively associated with the mental health of female workers in the manufacturing industry.	0.083	Not Supported
H2: Conflict with supervisors is negatively associated with the mental health of female workers in the manufacturing industry.	<0.001	Supported
H3: Work-to-family conflict is negatively associated with the mental health of female workers in the manufacturing industry.	0.005	Supported

4.10 Conclusion

The descriptive statistics further showed that work-to-family conflict had the highest mean value, followed closely by work stress and supervisor conflict, highlighting that balancing dual roles remains the most pressing challenge for women in this context. The analyses of validity and reliability showed that the measurement model was solid and trustworthy. Factor analysis confirmed a clear four-factor structure, matching the main variables in the study. Cronbach's alpha scores were all above 0.80, proving that the survey items were internally consistent. Normality tests showed that the data did not follow a normal distribution, which supported the use of non-parametric tests like Spearman's correlation. These strong initial checks boost confidence in the study's results and add weight to the findings that follow. The correlation results show clear links between all three stressors, work stress, supervisor conflict, and work-to-family conflict, and poorer mental health. Among them, supervisor conflict and work-to-family conflict stood out as stronger correlates than general work stress. This pattern suggests that interpersonal strain and role pressures weigh more heavily on women's well-being than task demands alone. The regression findings deepen this point. When the three predictors were assessed together, supervisor conflict and work-to-family conflict remained significant predictors of mental health problems, while work stress did not reach statistical significance. Put simply, difficult supervisor relationships and competing home demands appear more damaging than workload on its own. These results align with COR theory. Mental strain rises as key resources, emotional support,

time, and energy, are depleted across work and home. Supervisor conflict signals a loss of social support and psychological safety at work. Work-to-family conflict reflects time and energy being stretched beyond capacity across roles. Both erode mental health more directly than the volume of tasks. The non-significant effect of work stress in the full model suggests that high demands may be manageable when women have adequate support from supervisors and family.



CHAPTER FIVE

DISSCUSION AND CONCLUSION

5.1 Introduction

This chapter presents a comprehensive discussion of the research findings on the relationship between work stress, conflict with supervisors, and work-to-family conflict and their effects on mental health among female workers in the Malaysian manufacturing industry. The analysis in the previous chapter showed how each of these factors, as outlined in the research objectives, contributes to psychological well-being, particularly within the context of a structured and high-pressure manufacturing environment. The findings are examined here in detail and are critically compared to results from previous studies both locally and globally, offering insights into how these stressors align or differ from existing literature. The chapter begins by summarising the main findings from the correlation and regression analyses, which showed significant associations between supervisor conflict and work-to-family conflict with mental health, while work stress did not reach statistical significance in the regression model. The results are discussed in light of the Conservation of Resources (COR) theory, which helps explain how the depletion of personal, emotional, and social resources leads to psychological distress. Each research objective is reviewed in its own section, exploring whether the results support the stated hypotheses and how they reflect the real experiences of female factory workers. This is followed by a section

discussing the broader implications of the study for theory, practice, and policy, particularly regarding how organizations can support women in manufacturing roles. The limitations of the study are also addressed, including the contextual boundaries, sampling method, and the constraints of a cross-sectional design. Suggestions for future research are offered to help scholars and practitioners further explore gendered workplace mental health challenges. The chapter concludes with a full summary of the study's objectives, methods, key findings, theoretical contributions, and practical significance, leading to final remarks on the importance of supporting female workers' mental health in Malaysia's industrial sector.

5.2 Summary of Main Findings

This study set out to examine the relationships between three workplace stressors, work stress, conflict with supervisors, and work-to-family conflict, and mental health among female workers in the Malaysian manufacturing industry. The findings were based on quantitative data collected from 111 female employees at a glove manufacturing company in Senawang, Negeri Sembilan. Descriptive statistics showed that work-to-family conflict was perceived as the most serious stressor, followed closely by work stress and supervisor conflict. Spearman correlation analysis confirmed that all three variables were significantly associated with poorer mental health outcomes, such as anxiety, exhaustion, and sleep problems. However, the multiple regression analysis provided a more nuanced understanding: only conflict with supervisors and work-to-family conflict were statistically significant predictors

of mental health deterioration, while work stress, although correlated, did not reach significance when considered alongside the other variables. These results indicate that relational and role-based stressors may have a stronger impact on mental health than workload pressure alone. The analysis supports the Conservation of Resources (COR) theory, which posits that mental health suffers when individuals experience sustained depletion of emotional, social, and temporal resources. The following sections provide a deeper discussion of each research objective and hypothesis in relation to the study findings and existing literature.

5.2.1 Relationship between Work Stress and Mental Health among Female workers.

The first objective of this study was to examine the relationship between work stress and mental health among female workers in the manufacturing industry. The hypothesis formulated for this objective (H1) stated that work stress is negatively associated with the mental health of female workers in the manufacturing industry. The results from the correlation analysis supported this hypothesis, showing a statistically significant relationship between work stress and mental health, indicating that higher levels of stress were associated with poorer mental health outcomes. However, when work stress was entered into the multiple regression model alongside conflict with supervisors and work-to-family conflict, its effect was not statistically significant ($p = 0.083$). This means that although work stress was moderately correlated with mental health in general, it did not uniquely predict mental health

outcomes when considered together with the other two stressors. This finding suggests that while work stress is indeed a concern among female factory workers, its independent influence on psychological well-being may be less severe than relational or role-based stressors like supervisor conflict and family interference. The finding does not reject the importance of work stress but highlights that in contexts where multiple stressors are present, its effects may be mediated or overshadowed by stronger psychosocial variables.

Although work stress did not emerge as a significant predictor in the regression analysis, the mean score for work stress ($M = 3.77$, $SD = 0.57$) shows that it was experienced widely among respondents, and this aligns with past literature. Saleh and Shahidan (2023) found that high work stress in Malaysian manufacturing companies was associated with increased absenteeism, lower job performance, and reduced morale. Similarly, Zurnizam et al. (2024) concluded that prolonged exposure to workload pressure and organizational demands significantly harmed psychological well-being and productivity. The current study's finding, that work stress is significantly correlated with mental health but not a strong predictor in the presence of other variables, aligns with the argument made by Noordin et al. (2023), who noted that emotional and environmental factors often have a greater psychological impact than workload alone. Sharma and Kapur (2022) pointed out that while heavy workloads can be stressful, mental health issues often arise from a mix of pressures, including strained relationships and a lack of support. In this study, the absence of a significant regression result for work stress may reflect how many women have learned to handle the physical demands of their jobs, but still struggle when job pressures are

paired with poor support from supervisors or unmet responsibilities at home. This idea is backed up by Jabbar et al. (2024), who argued that in industrial settings, mental health problems are often less about workload itself and more about not having enough coping resources.

From a theoretical perspective, these findings align well with the Conservation of Resources (COR) theory, which states that people strive to protect their key resources such as energy, emotional stability, and time (Hobfoll, 1989; Hobfoll et al., 2018). Although work stress can deplete these resources through fatigue and pressure, the COR theory also emphasises that threats to social and emotional support such as conflict with supervisors and strain between work and family roles can lead to faster and more severe resource loss. In this study, the stronger effects of supervisor conflict and work-to-family conflict suggest that interpersonal and role-related pressures drained workers' resources more directly than general workload stress. This helps explain why work stress, despite its moderate correlation with mental health, did not emerge as a significant predictor in the regression model when the other stressors were considered simultaneously. Previous studies, such as Hamzah et al. (2023) and Lee and Lai (2020), also show that workplace mental health challenges among female teachers are influenced not only by job demands but by structural conditions, social relationships, and the degree of control that workers feel they have in their work environment. These broader factors shape how deeply stress affects well-being. Therefore, although H1 was not supported, the relationship between work stress and mental health remains relevant, particularly when designing workplace interventions. Managing workload is still necessary, but the evidence from this study indicates that

improving supervisory practices and supporting employees' family responsibilities are equally, if not more, important. Interventions that address these combined pressures are likely to provide stronger protection for women's mental health in manufacturing settings.

5.2.2 Relationship between Conflicts with Supervisors and Mental Health among Female workers.

The second objective of this study was to investigate the relationship between conflict with supervisors and mental health among female workers in the manufacturing industry. The corresponding hypothesis (H2) proposed that conflict with supervisors is negatively associated with the mental health of female workers in the manufacturing industry. This hypothesis was strongly supported by the findings from both the correlation and regression analyses. The Spearman's correlation result showed a moderate to strong positive relationship ($r = 0.479$, $p < 0.001$), meaning that as conflict with supervisors increased, mental health deteriorated. More importantly, the multiple regression analysis revealed that among all three independent variables, conflict with supervisors was the strongest and most significant predictor of poor mental health, with a regression coefficient of $B = 0.283$, $\beta = 0.311$, and a significance level of $p < 0.001$. These results suggest that supervisor-related issues such as poor communication, lack of emotional support, unclear expectations, and perceived unfairness have a profound and direct impact on the psychological well-being of

female factory workers. In hierarchical and male-dominated workplaces such as manufacturing, supervisory relationships are a critical source of either support or strain, and this study confirms that negative dynamics with supervisors significantly deplete emotional resources, increasing vulnerability to stress, anxiety, and emotional exhaustion.

The findings of this study are strongly aligned with past research that has consistently emphasized the impact of poor supervisor relationships on employee mental health. Suhaimi et al. (2023) reported that unsupportive and toxic supervisory behaviours, such as micromanagement, favouritism, and lack of communication, significantly increased psychological distress and turnover intentions among manufacturing workers. Similarly, Yusof et al. (2023) found that conflict handling styles among supervisors played a mediating role between job characteristics and performance outcomes, noting that when supervisors used avoidance or dominance strategies, tension increased, and employee well-being suffered. Hasan et al. (2021) also highlighted that communication failures, especially in high-pressure environments like manufacturing, were strongly linked to unresolved interpersonal conflicts and elevated mental stress. These findings support the interpretation of this study's results, where conflict with supervisors emerged as a leading contributor to poor mental health outcomes among female workers. Sarah (2025) further explained that female employees who lacked supervisory support in high-demand environments were more likely to experience burnout and emotional fatigue. These patterns are not unique to Malaysia. Macias-Velasquez et al. (2021), in their study on team dynamics in the manufacturing sector, found that emotionally unintelligent supervisors were less

able to recognize signs of employee dissatisfaction and more likely to contribute to ongoing interpersonal tensions, which ultimately harmed employee morale and mental health. Taken together, the literature provides robust support for this study's finding that supervisor conflict is a strong and consistent predictor of deteriorating mental health, particularly among female employees navigating both professional and domestic stressors.

These results fit closely with the core ideas of Conservation of Resources (COR) theory. Supervisors are not just bosses, they play a major role in providing emotional support, practical help, and useful information at work. When a woman faces conflict with her supervisor, she loses access to these important resources and often feels additional stress from emotional pain, uncertainty, or even fear of negative consequences. This loss is twofold: she misses out on both external support (like advice or encouragement) and internal resources (such as confidence or a sense of control), which speeds up psychological fatigue. Hobfoll et al. (2018) pointed out that losing resources is much more damaging than gaining them is helpful. Long-term relational stress, especially in unsupportive workplaces, can lead to a spiral of emotional exhaustion. This study found clear evidence of that pattern: women who lacked supervisor support or had frequent conflicts were much more likely to report mental health issues, such as anxiety, sleep disturbances, and emotional withdrawal. In manufacturing jobs, where the work is demanding and communication with supervisors is mostly about tasks, not emotional support, the lack of a positive supervisory relationship leaves little room for workers to recover emotionally or express themselves. Loudoun et al. (2024) backed up these findings by showing that

in both construction and manufacturing, the quality of supervisor-worker relationships has a direct effect on safety, engagement, and overall well-being. In light of this, the current study's findings not only match the predictions of COR theory but also shine a light on a deeper, structural problem. Supervisor conflict should not be brushed off as a minor personal issue. Instead, it should be seen as a central factor in employee mental health. Companies need to focus on supervisor training in communication, emotional intelligence, and conflict management. Creating this kind of supportive environment is crucial for protecting the mental health of women working in manufacturing.

5.2.3 Relationship between Work-to-Family Conflicts and Mental Health among Female workers.

The third goal of this study was to examine how work-to-family conflict affects mental health among women in manufacturing jobs. The hypothesis (H3) suggested that work-to-family conflict would be linked to poorer mental health. The findings strongly supported this idea. The correlation analysis revealed a significant, moderate-to-strong relationship ($r = 0.469$, $p < 0.001$), showing that higher levels of work-to-family conflict go hand-in-hand with more psychological distress, including anxiety, trouble sleeping, and emotional exhaustion. The multiple regression analysis also showed that work-to-family conflict was a significant predictor of declining mental health, with a regression coefficient of $B = 0.273$, $\beta = 0.298$, and a p-value of 0.005. These results make it clear that when job demands interfere with family responsibilities, women

workers experience considerable emotional strain. This is particularly true in Malaysia, where women are often expected to take the lead in domestic and caregiving roles. When these expectations collide with the realities of factory work, especially with long or irregular shifts, women's mental well-being suffers. The findings highlight the need to view work-to-family conflict as a structural and gendered challenge, not simply as a personal failure to manage time or tasks.

These results match what has been found in many other studies on women's mental health and work-to-family conflict. Yeo et al. (2022) studied married professional women in Malaysia's construction industry and found that long hours and rigid schedules often clashed with family needs, leading to exhaustion and time away from work. Similarly, Ma et al. (2025) reported that for Chinese career women, overwork and lost family time predicted higher anxiety, irritability, and depression. Kinnear and Naidoo (2024) emphasized that work-to-family conflict leads to ongoing stress, particularly in manufacturing, where women are expected to handle both high-pressure jobs and family care. Their research linked work-to-family conflict with poor life satisfaction, low job engagement, and less emotional stability. Lyu and Fan (2020) showed that women who lacked family-supportive supervisors felt more emotional fatigue and disengagement. This fits with the current study's findings: conflict between work and family roles drives emotional tension and wider patterns of stress. Asbari et al. (2020) found similar effects among Indonesian women, with high work-to-family conflict lowering job satisfaction and performance while raising emotional stress. Together, these regional studies, including those from Malaysia, show a consistent and significant impact of work-to-family conflict on women's mental health.

The Conservation of Resources (COR) theory helps explain why work-to-family conflict leads to psychological distress. COR theory (Hobfoll, 1989; Hobfoll et al., 2018) says people try to hold on to important resources like time, emotional energy, and social support. When work demands spill over into home life, these resources are drained, making it harder to manage both work and family duties. This resource loss hits women especially hard, since they are often expected to succeed at work and at home without enough support. For many of the married women in this study who are also primary caregivers, being unable to meet family needs because of work creates guilt, stress, and dissatisfaction. This double load, described by Artz et al. (2021) as a central part of gendered burnout, is rarely addressed in workplaces that assume all employees have the same support outside of work. Manufacturing jobs, with their inflexible shifts and tight deadlines, make things worse by offering little room to adjust. Westman et al. (2004) also pointed out that these cross-domain conflicts drain emotional reserves and limit chances to recover, leading to lasting mental fatigue. In this study, work-to-family conflict remained a strong predictor of mental health problems even after accounting for other stressors. These findings point to the need for workplace policies that are more responsive to women's needs, such as flexible schedules, family-supportive supervision, and access to employee assistance programs. Addressing work-to-family conflict goes beyond simply offering better work-life balance; it is a core mental health issue that requires real structural change in how organizations support women working in manufacturing.

5.3 Implications of the Study

The findings from this study carry several important implications for workplace practices, policy-making, and theory within Malaysia's manufacturing industry, especially when it comes to supporting women. One of the clearest results is that supervisor conflict and work-to-family conflict are the main drivers of mental health problems among female factory workers. This means organizations can't just focus on traditional stress management that targets workload or time pressure. While work stress does play a role, it was not a key predictor when compared to issues involving supervisors or the struggle to balance work and family. Improving mental health in manufacturing seems to depend more on creating a supportive environment and helping employees manage their relationships, both at work and at home, than simply cutting back on tasks. Following the Conservation of Resources (COR) theory, it is clear that social and emotional resources, like strong supervisor support and stable family life, are central to protecting mental health. When workers lack these supports, their well-being quickly declines. Companies need to put real effort into programs that rebuild these resources. For example, training supervisors to communicate better, show empathy, and understand gender-sensitive leadership could go a long way in easing the psychological strain that comes from supervisor conflict. The study highlights that supervisors are much more than task managers, they are crucial to their teams' emotional health.

Another key point is that work-to-family conflict has a big and unique impact on women's mental health. This underlines how stress at work is often shaped by the responsibilities women have outside of it. In many Malaysian families, women are still expected to be the main caregivers, even when they are also holding down full-time jobs. This double load creates significant emotional and physical stress, particularly in factory work, where rigid schedules make family life even harder to manage. The study's results make it clear: work-to-family conflict does not just lower job satisfaction, it has a real and lasting impact on mental health, causing issues like emotional fatigue, trouble sleeping, and anxiety. These patterns match what other researchers have found (Yeo et al., 2022; Ma et al., 2025; Kinnear & Naidoo, 2024), all pointing to the mental health costs of juggling work and family roles. Employers who ignore this reality risk higher rates of absenteeism, low morale, and turnover, especially among their female staff. To address these challenges, companies should look at practical solutions that genuinely support families. This might mean offering flexible work hours, allowing shift swaps, providing on-site childcare, or scheduling regular wellness check-ins. But more than just new policies, there needs to be a cultural shift, workplaces must start to value and support work-life integration, especially for women. These changes should not be seen as perks, but as essential steps to protect mental health and address one of the most significant sources of distress uncovered in this study.

Lastly, the study contributes meaningfully to theoretical development by reinforcing the relevance of COR theory in explaining female employees' mental health outcomes in manufacturing contexts. The theory's central premise, that psychological stress occurs when resources are threatened, lost, or not regained after investment, accurately describes the experience of the women surveyed in this study. Conflict with supervisors represents a loss of emotional and social resources in the workplace, while work-to-family conflict reflects cross-domain depletion of time, energy, and personal stability. These findings affirm the utility of COR theory in analyzing stress beyond task-based pressure, especially in settings where interpersonal relationships and role conflicts intersect. Moreover, the study extends the application of COR theory to a relatively under-explored population, Malaysian female factory workers, thereby addressing a notable gap in existing literature. This population has often been excluded from mainstream mental health research, which tends to focus on healthcare, education, or corporate office environments. By applying COR theory in a gender-sensitive and context-specific manner, this study offers a more nuanced understanding of how stress operates in layered and compounding ways. It also opens the door for future theoretical adaptations that consider how cultural expectations, such as traditional gender roles, shape resource loss and emotional exhaustion. In doing so, the study encourages future scholars to adopt more intersectional and contextualized approaches to workplace mental health, especially in industrial settings where stress is not just a by-product of work but a structural outcome of systemic neglect and inequality.

5.4 Limitations of the Study

While this study provides valuable insights into the mental health challenges faced by female workers in the Malaysian manufacturing sector, several limitations must be acknowledged. One key limitation relates to the scope of the study, which focused solely on a single manufacturing company, Careglove Global Sdn. Bhd. in Senawang, Negeri Sembilan. Although this site was appropriate due to its relevance and access to female workers, the results cannot be generalized across the entire Malaysian manufacturing industry. Different factories, companies, and regions may operate under distinct management styles, production demands, and cultural expectations, all of which could influence the prevalence and impact of stressors such as supervisor conflict and work-to-family conflict. The participants' experiences were also shaped by their specific job roles, most of which were at the operational level, and by the organizational structure of a glove manufacturing environment. These contextual factors may not represent the realities of women working in other types of manufacturing, such as electronics, automotive, or food processing. Therefore, although the findings reveal significant patterns, they are limited by the geographical and organizational boundaries of the selected research site and should be interpreted with caution in other settings.

Another notable limitation arises from the use of a cross-sectional survey design. While this design allowed for efficient data collection and facilitated the analysis of relationships between variables at a single point in time, it restricted the ability to infer causality. The study revealed statistically significant associations

between supervisor conflict, work-to-family conflict, and mental health outcomes, but it could not confirm whether these stressors caused the mental health decline or whether pre-existing psychological conditions influenced how workers perceived these stressors. Longitudinal data would be necessary to determine how these relationships evolve over time and whether prolonged exposure to stressors results in worsening mental health. Moreover, the cross-sectional design made it difficult to assess the effects of temporary external factors that may have influenced participants' responses. For example, economic uncertainty, personal health issues, or recent organizational changes might have temporarily affected stress levels or perceptions of supervisor support. Without repeated measurements, it was not possible to control for these situational variables. Consequently, the results provide a snapshot of the current mental health situation among the respondents but may not capture the full complexity of stress-related dynamics in the workplace over time.

Lastly, the study's reliance on self-reported data through structured questionnaires presents a potential limitation in terms of measurement bias. Although the instruments used were adapted from validated sources and demonstrated strong reliability (with all Cronbach's alpha values above 0.80), the responses were subject to personal interpretation and social desirability. Participants may have underreported mental health symptoms or overstated positive work relationships to appear resilient or avoid judgment, especially given the cultural context where mental health issues can carry stigma. This is particularly relevant in Malaysian society, where workers may hesitate to acknowledge emotional struggles or dissatisfaction with authority figures, such as supervisors. Additionally, the use of Likert-scale items, while effective

for quantitative analysis, may have constrained participants' ability to fully express their experiences, leading to a potential loss of nuance. The structured format did not allow for elaboration on specific stressors, coping mechanisms, or underlying personal factors that might influence mental health. While the study's quantitative approach enabled the testing of hypotheses with statistical rigor, it also limited the depth of insight into the individual and emotional dimensions of workplace stress. Future studies may consider integrating qualitative methods to gain a richer understanding of the lived experiences of female manufacturing workers.

5.5 Directions for Future Research

Future research should consider expanding the geographical and organizational scope to enhance the generalizability of findings on mental health and workplace stressors among female workers. This study was limited to one manufacturing plant located in Negeri Sembilan, which, although informative, cannot fully capture the diverse experiences of women across different regions or industrial sub-sectors in Malaysia. Future researchers could include multiple manufacturing companies across various states such as Penang, Johor, or Selangor to explore regional differences in management practices, cultural expectations, and gender dynamics. Additionally, expanding the scope to include other manufacturing industries, such as electronics, textiles, automotive, and food production, would allow for comparisons between sectors that may differ in production schedules, shift structures, or safety protocols. Such comparisons could help determine whether certain industry-specific factors

intensify or mitigate workplace stress. Moreover, researchers may consider comparing the experiences of female and male workers within the same industrial setting to uncover gendered differences in stress exposure, supervisory relationships, and work-to-family conflict. These insights would provide a more inclusive and intersectional understanding of how workplace conditions affect mental health outcomes and could contribute to more targeted and equitable workplace interventions.

From a methodological point of view, future research would gain a lot by using a longitudinal design to track how workplace stress and mental health change over time. The current study was cross-sectional, which means it captured only a single moment and cannot say for certain how or why changes occur. Longitudinal research, by following workers over six months or a year, could show whether long-term conflict with supervisors or ongoing work-to-family imbalance really does lead to gradual loss of personal resources and worse mental health, as suggested by Conservation of Resources (COR) theory. This type of design would also make it possible to see if workplace changes, like new supervisor training or more flexible schedules, actually lead to lower stress and better well-being for employees over time. Tracking people at different life stages, such as when they become parents, get promoted, or grow older, could reveal whether workers learn to adapt to certain stressors, or if these stressors have stronger effects at certain times. Overall, a time-based approach would deepen our understanding of how resource loss and recovery play out in real life, and how COR theory applies over the course of a worker's career.

When it comes to collecting and analysing data, future studies could benefit from combining both quantitative and qualitative methods. While this study used self-administered questionnaires to gather numbers and statistics, adding interviews, focus groups, or diary studies could provide much richer detail about what female factory workers actually go through. Personal stories might reveal sources of stress that surveys miss, like sexual harassment, discrimination, or the pressure of being the only caregiver at home. Qualitative insights could also shed light on the coping strategies and support systems some women use, whether it's spiritual practices, support from their community, or collective action through unions. In addition, future research should look at factors that might influence or buffer the effects of workplace stress, such as emotional resilience, workplace culture, or how much social support is available. By exploring these relationships using more advanced techniques like structural equation modeling (SEM) or multilevel analysis, researchers can gain a clearer picture of how different layers of individual and organizational factors work together to shape mental health. By taking a broader approach, future research can produce findings that are not only more thorough and culturally aware, but also more useful for policy and workplace practice, helping to protect the mental well-being of women working in Malaysia's manufacturing sector.

5.6 Conclusion

This study was undertaken to examine the relationship between work stress, supervisor conflict, and work-to-family conflict and their influence on the mental health of female workers in Malaysia's manufacturing industry. The research addressed a significant gap in the literature by focusing on a population that is often underrepresented in workplace mental health studies. The problem was framed around the growing mental health concerns among women in industrial jobs, especially where work demands intersect with rigid schedules, supervisory pressure, and traditional caregiving responsibilities. The research aimed to test three core hypotheses grounded in the Conservation of Resources (COR) theory, which posits that psychological strain results from the depletion of vital emotional, social, and physical resources. Data were collected through a structured questionnaire distributed to 111 female workers at Careglove Global Sdn. Bhd., using a cross-sectional survey design. The results were analyzed using SPSS, including Spearman's correlation and multiple regression. Findings revealed that while all three independent variables were significantly correlated with mental health, only conflict with supervisors and work-to-family conflict emerged as significant predictors in the regression analysis. Work stress, although important, was not a statistically significant predictor when the other two variables were considered simultaneously. These findings highlight the importance of relational and role-based stressors in shaping female employees' psychological well-being in factory settings.

The implications of this research are both practical and theoretical. On a practical level, the study emphasizes the need for manufacturing organizations to implement family-supportive policies and improve supervisory practices. Conflict with supervisors and interference between work and family roles were shown to have a profound effect on mental health, suggesting that organizational interventions must go beyond task management to address emotional and relational dimensions of work. Theoretically, the study reinforces the relevance of COR theory in explaining how psychological resources are lost in the context of poorly managed workplace dynamics and gendered expectations. The study also acknowledged several limitations, including its focus on a single company, reliance on self-reported data, and a cross-sectional design that restricted causal interpretations. These limitations point to the need for broader sampling, longitudinal tracking, and mixed-method approaches in future research. Expanding the geographical and industrial coverage, incorporating qualitative insights, and examining moderating variables would enhance understanding of how stress and mental health interact over time. Despite these limitations, the study offers critical insights into how psychological distress among female workers is shaped by workplace structures and cultural expectations. The findings call for urgent attention from employers, policymakers, and researchers to protect the mental health of women in Malaysia's manufacturing sector and to create more inclusive, empathetic, and sustainable work environments. In conclusion, supporting the mental health of female industrial workers is not only a moral imperative but also a strategic investment in workforce resilience and national productivity

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APPENDIX A: SPSS OUTPUTS

Demographic Profile of the Respondents

Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 29 years old	29	26.1	26.1	26.1
	30 - 39 years old	31	27.9	27.9	54.1
	40 - 49 years old	30	27.0	27.0	81.1
	50 - 59 years old	21	18.9	18.9	100.0
	Total	111	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	81	73.0	73.0	73.0
	Single	30	27.0	27.0	100.0
	Total	111	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree or Higher	29	26.1	26.1	26.1
	Diploma/Certific	42	37.8	37.8	64.0
	Primary School	3	2.7	2.7	66.7
	Secondary School	37	33.3	33.3	100.0
	Total	111	100.0	100.0	

Years of Experience in Manufacturing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11 - 15 years	9	8.1	8.1	8.1
	1 - 5 years	55	49.5	49.5	57.7
	6 - 10 years	40	36.0	36.0	93.7
	More than 15 years	7	6.3	6.3	100.0
	Total	111	100.0	100.0	

Current Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Assistant	2	1.8	1.8	1.8
	Executive	10	9.0	9.0	10.8
	Leader	11	9.9	9.9	20.7
	Officer	1	.9	.9	21.6
	Operator	78	70.3	70.3	91.9
	QA Executi	1	.9	.9	92.8
	Senior Exe	1	.9	.9	93.7
	Senior Man	1	.9	.9	94.6
	Supervisor	6	5.4	5.4	100.0
	Total	111	100.0	100.0	

Working Hours per Week

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40 hours (8 hours per day)	98	88.3	88.3	88.3
	45 hours (9 hours per day)	10	9.0	9.0	97.3
	50 hours (10 hours per day)	1	.9	.9	98.2
	60 hours (12 hours per day)	2	1.8	1.8	100.0
	Total	111	100.0	100.0	

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Reliability Analysis

Work Stress (IV1)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.849	.852	5

Conflict with Supervisors (IV2)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.893	.896	5

Work-to-Family Conflict (IV3)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.851	.854	4

Mental Health (DV)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.838	.842	5

Normality Analysis

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Work_Stress	.178	110	<.001	.946	110	<.001
Conflict_With_Supervisors	.153	110	<.001	.917	110	<.001
Work_to_Family_Conflict	.133	110	<.001	.951	110	<.001
Mental_Health	.112	110	.002	.955	110	.001

a. Lilliefors Significance Correction

Descriptive Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Work_Stress	111	1.60	5.00	3.7730	.57429
Conflict_With_Supervisors	111	1.00	5.00	3.5892	.67033
Work_to_Family_Conflict	111	1.25	5.00	3.8536	.66355
Mental_Health	110	1.20	5.00	3.7927	.60996
Valid N (listwise)	110				

Spearman's Rank Correlation

Correlations

			Work_Stress	Conflict_With_Supervisors	Work_to_Family_Conflict	Mental_Health
Spearman's rho	Work_Stress	Correlation Coefficient	1.000	.342**	.525**	.388**
		Sig. (2-tailed)	.	<.001	<.001	<.001
		N	111	111	111	110
	Conflict_With_Supervisors	Correlation Coefficient	.342**	1.000	.487**	.479**
		Sig. (2-tailed)	<.001	.	<.001	<.001
		N	111	111	111	110
	Work_to_Family_Conflict	Correlation Coefficient	.525**	.487**	1.000	.469**
		Sig. (2-tailed)	<.001	<.001	.	<.001
		N	111	111	111	110
	Mental_Health	Correlation Coefficient	.388**	.479**	.469**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	.
		N	110	110	110	110

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

Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.648 ^a	.420	.404	.47087

a. Predictors: (Constant), Work_to_Family_Conflict, Conflict_With_Supervisors, Work_Stress

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.052	3	5.684	25.636	<.001 ^b
	Residual	23.502	106	.222		
	Total	40.554	109			

a. Dependent Variable: Mental_Health

b. Predictors: (Constant), Work_to_Family_Conflict, Conflict_With_Supervisors, Work_Stress

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	1.080	.330		3.274	.001
	Work_Stress	.171	.098	.162	1.752	.083
	Conflict_With_Supervisors	.283	.083	.311	3.389	<.001
	Work_to_Family_Conflict	.273	.094	.298	2.888	.005

a. Dependent Variable: Mental_Health



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