What Health and Safety and Wellbeing Issues Currently Confront Professionals Working in the Building Industry that Undertake Roles in Certifying Projects.

A Research Report Presented in Partial Fulfilment of the Requirements for the Degree of

Master of Construction

in

Construction Law

School of Built Environment, Massey University, New Zealand

2022

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STATEMENT OF ORIGINALITY:

Title: What health and safety and wellbeing issues currently confront professionals working in the building industry that undertake roles in certifying projects.

This is my work, and to my knowledge, I have referenced all material I did not produce.

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ACKNOWLEDGEMENTS:

I would like to express my gratitude to my supervisor Dr Gregory Chawynski.

I would also like to thank the staff at Christchurch City Council who assisted me in data collection and for their support.

EXECUTIVE SUMMARY

This research project aims to investigate what are the health and safety and wellbeing issues currently confronting Building Professionals, and what support they received from their organisation. The World Health Organisation defines that health and safety covered three areas: physical health, mental health, and social wellbeing. Occupation health and safety issues are caused by work activities and the working environment (Gardiner et al., 2022). Also, workplace wellbeing is relative to an organisation policy and work environment (WellBQ | NIOSH | CDC, 2022).

Building Professionals in this research are defined as "*professionals certifying building work under the Building Act 2004, such as a building consent officer, building inspector, code compliance certificate officer etc."* Building Professionals play an important role in the building industry, as they get involved in every stage of a building project. However, in New Zealand, a Building Professional's health and safety and wellbeing are barely considered.

Under the Building Act 2004, Building Professionals certifying a building project, must decide within a defined tight timeframe, and their reasons must be recorded. Also, Building Professionals must have competence which needs to be annually assessed. This review and often training must be recorded. Any work that Building Professionals do as defined under the Building Act might be reviewed by an external auditor or reviewed as part of a dispute.

Most Building Professionals work in office-based roles, and usually in the public sector such as local Council. A Geek study by Nasios (2021) showed that public sector worker's occupational health issues come from work-related stress and musculoskeletal disorders. As most Building Professionals work in the office, resulting in long sitting times, called sedentary behaviour. Sedentary behaviour can directly cause musculoskeletal discomfort, also it can cause mental health issues and increase the risk of some chronic disease (Ma et al., 2017; Leitzmann et al., 2018; Kett & Sichting, 2020). Occupational stress can also be caused by varied hours of work, workload and wages, resulting in physical and mental health and wellbeing issues (George et al., 2021; Qiu et al., 2022).

There are some international studies that have showed that adequate ethical policies for the workplace can reduce a worker's sedentary behaviour and occupational stress. Leadership, communication methods, and social responsibility are all contribute (Maphong et al., 2022; Schwepker Jr et al., 2021; Wang et al., 2020; Maartje et al., 2020). In New Zealand, legislation and government agencies have limited information about Building Professionals health and safety and wellbeing issues. This gap was confirmed in the literature review.

The research methodology was to adopt a survey questionnaire. The design of these questions were based on the literature review, and focused on finding what health and safety and wellbeing issues Building Professionals are currently facing at work. There are 3 parts in the survey: Part 1, personal characteristics, to identify if age, gender, or role can affect their occupational health. Next, part 2, health and safety and wellbeing questions, to identify if total working and leisure hours affect

professional's physical and / or mental health. Finally, part 3, open-ended questions, to identify what wellbeing support professional received from organisation, and to collect the recommendations from Building Professionals about how to improve their health and safety and wellbeing. This survey was collected in Christchurch City Council Building Consent Unit. This research has completed a peer review, and Massey University Human Ethics Committee has identified this research as low risk.

63 Building Professionals participated in this research, and all valid surveys were collected by face-to-face interviews. 57% of the participants were in technical roles; most were aged were between 31-60 years old; male participants were slightly more than female participants in number. The survey showed that Building Professionals in a management role had more working and leisure hours. 48% of Building Professionals had physical health issues, and 75% had mental health issues. Also, Building Professionals in supporting and technical roles had higher mental issues than those in management roles. Female Building Professionals had higher mental issues than male ones. Almost half of those surveyed experienced muscular tension. About 30% suffered one or more of the following symptoms from work: headaches, anxiety, sleeping difficulty, work and / or private life distraction. 100% of the management roles surveyed agreed that they received adequate support from their employer, while 58% non-management roles agreed. Some Building Professionals indicated that their employer provided a supporting work environment, also they received flexible work agreements and employee assistance. More than half of those surveyed suggested that to improve their organisation's policy, also they suggested that pay increases and office furniture updates would have the potential to improve their occupational health.

This research found that over 80% of Building Professionals have mental and / or physical health issues at work, especially mental health ones. This research found that the organisation provided some support for the employee to improve their occupational mental and physical health wellbeing, such as flexible work agreements and employee assistance. However, there is a significant gap about the satisfaction rate between management and non-management roles, about the support they received, which indicated that there is lack of communication between managers and team players. This research also found that lower income roles have lesser leisure time and higher mental health issues, which is match with the literature review.

To improve the Building Professional's occupational health and safety and wellbeing, the employer should enhance their organisation policy, that should include key things like fair pay and improve communication methods. The government could also review and enhance the current Health and Safety at Work Act, by providing some standards or framework around improving a sustainable and acceptable health and safety and wellbeing work environment.

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ABBREVIATIONS:

BCA:	Building Consent Authority
CCC:	Christchurch City Council
CCOHS:	Canadian Centre for Occupational Health and Safety
EAP:	Employee Assistance Programmes
HR:	Human Resource
HSWA:	Health and Safety at Work Act 2015
ILO:	International Labour Organisation
MSDs:	Musculoskeletal Disorders
NZ:	New Zealand
NZBC:	New Zealand Building Code
PCBU:	Person Conducting a Business or Undertaking
TA:	Territorial Authority
UK:	United Kingdom
UNICEF:	United Nations International Children's Emergency Fund
WHO:	World Health Organisation
WorkSafe:	WorkSafe New Zealand

1. INTRODUCTION

1.1 Background

Health and Safety for workers cover the following areas: physical health, mental health, and social wellbeing (World Health Organisation, 2019). Wellbeing is also an important consideration for workers' health. Workplace wellbeing relates to the physical workplace environment, organisation policies, culture and work evaluation (WellBQ | NIOSH | CDC,2022). In all industries, professionals should be valued in their workplace. A good health and safety and wellbeing policy can show that the organisation appreciate and value workers' contribution. Also, there is evidence that productivity directly links to the workplace's health and safety and wellbeing policy (World Health Organisation, 2019). Occupational health and safety and wellbeing issues are observed in all workplaces. For example, Canadian Centre for Occupational Health and Safety (CCOHS) (2022) and WorkSafe New Zealand (WorkSafe) (2019) explain office workers are faced with a variety of hazards in the office environment including: poor indoor air quality and toxic substances (like cleaning products). As well CCOHS and Worksafe mention the hazards to physical heath are the poor working posture, sitting for long periods of time, working with unergonomic working station/ furniture, eye strain, musculoskeletal disorders (MSDs), working in uncomfortable temperature environment, and distracting noise and vibration from equipment or workmates. Finally, there are interpersonal hazards such as risk of violence, bullying, stress, and work over-loads (CCOHS, 2022; WorkSafe, 2019).

In New Zealand (NZ), a lot of health and safety and wellbeing research has been conducted in the building industry. However, the Occupational health and safety and wellbeing issues for building professional who certify building projects is poorly mentioned. In this research, the "Building Professional" is defined as people who work at the Building Consent Authority (BCA) and / or the Territorial Authority (TA), certifying building projects.

Building Professionals are involved in every stage of a building project. Before the building work is undertaken, it needs a formal approval, building consent. Next, during construction, it requires building inspections at every stage. Finally, after the project completed it needs a code compliance certificate before the occupants can use the building. This project will focus on investigating the health and safety and wellbeing issues that Building Professionals are currently confronting.

Te Whare Tapa Whā is a health and safety and wellbeing model developed by Mason Durie in 1984, and it is well-recognised in New Zealand. In the Te Whare Tapa Whā, wellbeing is divided into four equal parts: physical health, mental health, spiritual health, and family health, and those parts are connected and contribute to the people's wellbeing as a whole (Māori Health Models – Te Whare Tapa Whā, 2017).

1.2 Research Statement

In 2021, about 436,700 people were employed in the public sector, 18.9% of New Zealand's workforce (Workforce Size | Te Kawa Mataaho Public Service Commission, 2021). Health and Safety at Work Act 2015 (HSWA) is New Zealand legislation that protects workers' health and safety in the workplace.

WorkSafe New Zealand is a government agency undertaking regulatory activities to ensure that the workplace complies with HSWA (WorkSafe, 2022). However, WorkSafe provides limited information about government workers' Health and Safety and Wellbeing. Stats NZ is a government agency that collects data (information) from the public via censuses and surveys (About Us | Stats NZ, 2022). While Stats NZ has health-related data on the building industry; however, there is no survey data about Building Professional's occupational health. Indeed, in New Zealand, most government agencies focus on addressing accidents, instead of occupational health and safety, chronic diseases, and mental health.

1.3 Research Aim

The primary aim of this project is to help the Building Professional improve their health and safety and wellbeing at work by better understanding their work environment, employer policies, statutory legislation, and wellbeing initiatives available from independent external organisations.

To achieve this, this research project investigates what are the health and safety and wellbeing issues confronting Building Professionals who undertake roles in certifying projects, and how the HSWA protects their health & safety. For example, on the WorkSafe website, there is significant generic information for the building and construction industry regarding site safety and how to minimize worker's health on a construction site; however, there is no information about the Building Professional who is heavily involved at every stage of a building project.

1.4 Research Objectives

There are three research objectives for this project:

a. To investigate the health and safety and wellbeing issues that the Building Professional faces at work;

b. To investigate support mechanisms that the workplace currently provides to the Building Professional;

c. To provide recommendations to improve the health and safety and wellbeing of Building Professionals.

1.5 Research Methods

This research will investigate occupational health issues that currently face Building Professionals who work in the Christchurch City Council (CCC) Building Consenting Unit. CCC is a local government, and CCC acts as a Territorial Authority (TA) and Building Consent Authority (BCA) under the Building Act 2004. Also, the CCC is one of the largest Councils in New Zealand. The occupational health issues that will be identified from surveying CCC workers will identify what Health and Safety and Wellbeing issues currently confront Building Professionals.

A survey was designed for the CCC workers who working in the Building Consenting Unit and it had multiple-choice questions, including an open-end question. A minimum of 50 Building Professions were asked to participate in this research conducted by face to face.

To identify the individual differences, the survey collected some demographics, such as age, gender, and role at work, to determine how their health and safety and wellbeing are prioritised and managed. Also, the survey investigated how working and leisure hours affected their physical and/or mental health. Specifically, it aimed to identify what symptoms the professional often experiences after a full day at work. Recommendations for how to improve Building Professional occupational health and safety and wellbeing was collected.

1.6 Research Scope and Limitations

The limitation of this research is the number of Building Professionals who will be chosen to participate in this research. This research aims to collect a minimum of 50 surveys from Building Professionals who work at the CCC. The targeted sample size of 50 people only account for 0.011% of 436,700 government employees (Workforce Size | Te Kawa Mataaho Public Service Commission, 2021). It is important to note that different workplaces (BCA and TA) will ultimately have other health and safety and wellbeing policies. Therefore, the survey data will not represent all the Building Professionals in New Zealand; however, it will provide a snapshot of what to expect industry-wide and will provide a basis of good data for future research.

1.7 Research Significance

This research will identify the health and safety and wellbeing issues that Building Professionals currently experience at work and how it impacts their personal life.

This research can also be used to help the CCC to improve their employees' occupational health.

2. LITERATURE REVIEW

2.1 Introduction

Building Professionals are facing occupational health and safety and wellbeing at work, and Building Professional plays an important role in the building industry. Under Building Regulation 2006, BCA perform building control function, which means Building Professional involves the building's design stage, construction stage, and maintenance stage. Most Building Professionals working in the public section, such as local councils, act as BCA and / or TA under the Building Act. This research project will investigate what health issues Building Professional are currently facing at work, and this research project will focus on how to improve Building Professional occupational health.

The literature review will analyse what occupational health issues the Building Professional would confront at work and what the Building Professional responsibility under the Building Act 2004 is. Also, this research will look at the cause of occupational health and how it impacts the Building Professional. Additionally, it will discuss the gap in the literature.

2.2 Review of Literature

2.2.1 Occupational Health and safety and Wellbeing

Occupational health is an illness caused by work activities and the working environment (Gardiner et al., 2022). A joint International Labour Organisation/World Health Organisation (ILO/WHO) Committee on occupational health recognised that the workers in all workplaces would experience physical, mental, and social wellbeing. It is crucial to improve the Building Professional occupation health. Research by Nasios (2021) indicates that improving public sector workers' occupational health can increase the public sector's productivity. In the public sector, the line manager significantly impacts the work's occupational health and enhancing the management skill can improve the worker's performance, productivity, and customer service delivery (Badul & Subban, 2022).

2.2.2 The Cause & Impact of Occupational Health

According to Greek research, in the public section, a lot of occupational health issues have come from work-related stress and musculoskeletal disorders, and the stress could result in sleeping difficulties, depression, and anxiety; the musculoskeletal disorders can result in muscular tension, headaches, heart problems; also work-related illness can affect work performance and personal life distractions (Nasios, 2021). Most Building Professional roles are office based, which might cause a long time sitting at work, and it is defined as sedentary behaviour (The Sedentary Behaviour Research Network, 2017). Concerningly Ma et al. (2017) shows that long working hours and long-time sitting work would increase the risk of heart disease, independent of physical activity (Ma et al., 2017). As well Indoor working environment conditions include exposure to thermal comfort, light, indoor air quality and light, and a questionnaire survey undertaken in Europe indicates that the workers' comfort level with the work environment is impacted by personal characterises: age, gender, woke type (Sakellaris et al., 2016).

Sedentary behaviour means long time sitting, and it is different from physical inactivity; also, sedentary behaviour may cause serious mental and physical health issues (Leitzmann et al., 2018). Sedentary behaviour will cause musculoskeletal discomfort, and after 4.5 hours of sitting at work, muscle stiffness will significantly increase (Kett & Sichting, 2020). Also, an international study shows that reducing sedentary behaviour at work can improve the worker's emotional wellbeing (Rollo & Prapavessis, 2021). A survey undertaken in UK universities shows that long sitting at work will impact the worker's overall health, productivity and performance (Faghy et al., 2022). Increasing leisure time physical activities can benefit the worker's physical and mental health (Prince et al., 2021; Vandelanotte et al., 2015), also leisure time and physical activities have a positive association with depression for both men and women in all ages (Marques et al., 2020).

United Nations International Children's Emergency Fund (UNICEF) defines stress is a feeling when people feel under pressure, overwhelmed, and unable to cope. Low stress can provide healthy tension, which might help work performance, but high stress will bring a lot of negative impacts, such as exhaustion, mental breakdown etc. (UNICEF, 2022).

There are many factors will cause occupational stress, such as work responsibility, hours of work, workload, wages, age group etc, however, a study from the University of Bahrain proved that occupational stress has no relation with the worker's age (George et al., 2021). A case study about occupational health and work productivity in Indonesia shows that occupational stress can negatively impact work productivity and safety (Kamaluddin et al., 2021). A self-report questionnaire survey shows that excessive workload will increase work-relative stress, physical pain and discomfort (Marcatto et al., 2016). Research on Chinese government employees shows that long working hours will increase work stress and decrease work satisfaction; it will also dispute the worker's sleep (Qiu et al., 2022). When long working hours (over 40 hours per week) worker compare with standard working hours (less than 40 h/week) worker, it shows that long working hours worker consume more alcohol and they have higher risk of depression (Pachito et al., 2021).

2.2.3 Building Professional Responsibility under the Building Act 2004

Section 3 of the Building Act, the purpose of the Building Act, noted that the Building Professional have an obligation to ensure all building work complies with the building code. Section 6 of the Building (Accreditation of Building Consent Authorities) Regulations 2006, noted that when Building Professional certifies a building consent, Building Professional need to make the decision under the Building Act, and Building Professional need to record the reasons for the decision and the outcome of the decision. Section 7 of the Building Regulations, BCA is performing building control functions, including building consent processing, building inspection, and building work certifying. It also means the Building Professional is performing building control functions. Section 10 and Section 11 of the Building Regulations, Building Professional who make decision under the Building Act must have competence, and all the training must be recorded, also the competency needs to assess annually.

Building Consent Officer

The Building Consent Officer is responsible for checking the building design to ensure that it complies with the Building Code, under Section 14F of the Building Act. Section 48 of the Building Act, Building Consent Officer, must decide within 20 working days of receiving the Building Consent Application.

Building Inspector

Building Inspector is responsible for checking the building work to ensure that the building work follows the building consent, under Section 14F of the Building Act. Section 90 of the Building Act states that Building Inspector can inspect the land, the building work and any building to ensure that the work is carried out under the building consent.

Code Compliance Certificate Assessor

Code Compliance Certificate Assessor is responsible for issuing the Code Compliance Certificate for the building work that follows the building consent and the requirements of the Building Act, under Section 14F of the Building Act. Section 92 - 95 of the Building Act, Code Compliance Certificate Assessor, must decide within 20 working days after receiving the Application or the agreed-upon period with the owner.

Building Professional Duty of Care

Section 17 of the Building Act, all the building work must comply with the New Zealand Building Code (NZBC). NZBC is performance-based, and each clause in the NZBC has three sections to explain how to comply: 1. Objective, the social objectives from the Building Act 2004; 2. Functional requirement, which describes how the building must perform to meet the Objective; 3. Performance, the performance criteria that the building must achieve (New Zealand Building Code, 2004). Section 19 of the Building Act lists how to accomplish the NZBC, and it includes acceptable solutions, verification methods, and alternative solution which is heavily rely on the Building Professional judgements. When the Building Professional certifies the project, they have a duty of care; also, they might face Tort of Negligence if the building does not perform as per NZBC.

In Body Corporate 326421 v Auckland Council (the Nautilus) [2015], the Council believed an alternative solution would comply with the building code and issued a building consent. It is appropriate for the Council not to inspect the alternative solution and instead receive a producer statement from the architect or engineer. In this case, the Council accepted a producer statement from the contractor and issued a code compliance certificate. However, the alternative design failed, and the court found the Council was responsible for it, as the Council should not be satisfied with the design and issued it a building consent, also the producer statement from the contractor should not have been accepted, and the Council should not give a code complain certificate.

2.2.4 How to Improve Occupation Health

As discussed above, sedentary behaviour and occupational stress are the main factors contributing to the Building Professional health and safety and wellbeing, and both sedentary behaviour and occupational stress will contribute to physical and mental health issues. To improve Building

Professional occupational health, it should reduce sedentary behaviour and reduce occupational stress at work place.

Four areas contribute to the risk of sedentary behaviour in the workplace: workplace environments, organisation, individual, and other factors (such as workmates) (Maphong et al., 2022). The study from Chulalongkorn University investigate how the organisation and the individual can help to reduce sedentary behaviour at work: the organisation can change the health and safety and wellbeing policy, provide more health and safety and wellbeing training, and the individual worker can change their attitudes and physical behaviour activities, and the result shows the organisation policy has more impact than the individual behaviour to reduce the sedentary behaviour at work (Maphong et al., 2022). World Health Organisation (WHO) guidelines recommended reducing the impact of sedentary behaviour, reducing a long time sitting and increasing moderate-intensity physical activity can be the options.

The organisation's ethical policy, which includes an internal code of ethics, leadership, and social responsibility, has a massive impact on the employee's occupational stress and directly influences the employee's health wellbeing (Schwepker Jr et al., 2021). A Japanese study also found that ethical leadership significantly impacts workers' stress (Wang et al., 2020). A suitable communication method between the worker and the organisation can help to reduce occupational stress (Smeltzer, 1987), also it will increase the worker's job satisfaction (Maartje et al., 2020).

2.3 New Zealand situation

Most of the Building Professional working in the public sector, such as local Councils. Auckland Council Annual Report 2020/2021 does not provide any information about Council Workers and their Health and safety and Welling issues. Wellington City Council Annual Report 2020/2021 provides the Council staff structure (age, gender, ethnicity, and business group), and the Health and safety issues at work. The Wellington City Council Annual Report also lists some recommendations provided by the auditor and an incident report is attached; also it noted that the health and safety management system would be reviewed and investigated if it fit for purpose. Christchurch City Council Annual Report 2020/2021 briefly introduced the elected Councillors and the Executive Leadership Team, but no Council Worker and their Health and safety and Welling information have been provided.

Safety at Work Act 2015 (HSAW) provided a fundamental Health and Safety system in New Zealand. HSAW noted that a PCBU (Person Conducting a Business or Undertaking) has a primary duty of care for the workers to prevent any work risk, including physical and mental health risks. HSAW indicate that the organisation must provide the appropriate training and information for the worker to ensure they can be safe at work. Also, many employers provide additional employee assistance programmes (EAP), which give free counselling to support the employee’s wellbeing (Employment New Zealand, 2022).

2.4 Gaps in Literature

Many employers view health and safety issues as an additional cost and it is not a profitable investment, and in several countries, there has been a reduction in public spending on occupational health and safety inspections (Nasios, 2021). In New Zealand, all organisations must provide adequate support for the employee's occupational health under the HSAW; however, it is the minimum standard. The three largest Councils in New Zealand, Auckland Council and Christchurch City Council's annual report have no Council worker's occupational health information, only Wellington City Council provided some information about the employee's Health and safety and Wellbeing.

The literature review shows that sedentary behaviour, long working hours, and occupational stress will cause physical health, mental health issues and chronic disease. Building Professional occupational health issues do not cause an immediate threat to life, and the symptom of the occupational health issues have a decade incubation period. However, the HSAW does not have a specification for addressing those issues. HSAW noted that the PCBUs must provide a safe work environment. Arguably a safe work environment does not only apply to immediate risk.

There is a lot of international academic research about occupational health and safety and wellbeing issues, but WorkSafe NZ have limited information about office-based workers' occupational health; also there is limited information about the public sector worker's occupational health issues around the world.

2.5 Summary of Literature Review

The literature review identifies occupational health and safety and wellbeing and investigates the BCA work scope, including Building Consent Officer, Building Inspector, and Code Compliance Certificate Assessor's responsibility under the Building Act and the Building Regulations. Under the Building Act, Building Professional have the duty of care that ensures the application building can perform as per the Building Code. Case law, Body Corporate 326421 v Auckland Council (the Nautilus) [2015], shows each Building Professional roles are critical importance, and their wrong decision will face Tort of Negligence in Court.

The literature defines occupational health as physical and mental wellbeing, and occupational health issues will affect work productivity. Sedentary behaviour, long working hours, and occupational stress are the most significant risk the Building Professional would confront at workplace. Findings have shown that daily sedentary behaviour with high-stress levels will increase the risk of cardiovascular disease (Chauntry et al., 2022). Also, the literature review found that organisation policy greatly impacts the worker's sedentary behaviour and occupational stress.

3. RESEARCH METHODOLOGY

3.1 Research Method and Design

In this research data was obtained from the administration of a questionnaire. As discussed in Section 2.4, Gaps in Literature, this research survey for Building Professionals focussed on identifying what health and safety and wellbeing issues Building Professionals are currently facing at work. The questions were based on the gaps identified from a literature review. The survey aimed to investigate such issues as how many hours per week are worked, how much leisure time is enjoyed, self-elevation about physical and mental health, if their organisation policy is fit for purpose, and it will confirm whether personal characteristics (age, gender, role at work) are important with regard to influencing certain criteria.

3.2 Data Collection Method and Procedures

The Building Professional survey will identify who works in their BCA and/or TA roles as prescribed under the Building Act. Building Professionals will be asked to participate in this survey during their break so will not be intrusive. The survey has three parts: Part 1, personal characteristics, this part will collect their personal information, to identify if age, gender, or work scope can affect their occupational health; Part 2, health and safety and wellbeing questions, this part is to identify if their total working and leisure hours could affect their physical and/or mental health; also it will find out what health issues they are experiencing after a day at work and how often; Part 3, open-ended questions, Building Professionals will be asked if they received adequate health and safety and wellbeing support from their organisation, if yes, they need to give an example. Also, they need to provide a recommendation to their organisation to improve the health and safety and wellbeing policy.

3.3 Population, Sample Frame and Sampling Method

Due to the time frame and budget restriction for this research, the survey will only be undertaken in one BCA and TA in New Zealand, that being the Christchurch City Council (CCC) Building Consent Unit. According to the human resource officer at CCC, about 250 council employees work in the Building Consent Unit, including part-time and full-time workers. This research aimed to collect a minimum of 50 valid surveys, or about 20% of the total Building Professionals employed at the CCC Building Consent Unit. Also, the researcher aimed to complete the data collection within two weeks. To collect a minimum 50 valid surveys, initially, the researcher will distribute out 80 hardcopy surveys that will require face-to-face interaction. If 50 valid surveys could not be obtained, the researcher was to send out an online survey via email to all the Building Professionals who work in CCC Building Consent Unit. These will be for those who work outside regular working hours (8 am-5 pm) or those working full-time from home.

3.4 Data Analysing Techniques

The data from the survey will be analysed by looking at how many responses are provided for each question, and this will determine the most to least relevant influencing factors. These will then be discussed in the main body of the report and summarised in the conclusion.

The process will follow that after collecting a minimum valid sample size of the survey, the researcher will put all the data into a Microsoft Excel spreadsheet. For all the multiple chose questions, the results will be visually presented in pie or bar charts. As well the results will be divided into three categories by age, gender, and role at work. It is expected that personal characteristics or profile of those surveyed will affect their total working and leisure hours and be linked to occupational health issues. The results will also be summarised for the open-end questions and presented in a charts or table format.

3.5 Ethical Considerations

Massey University Human Ethics Committee has identified this research as low risk, Ethics Notification Number: 4000026568 (Appendix A). This research has completed a peer review, and it identified that this research will have no harm to Massey University, to the supervisor, to the researcher, and to any participants.

This research questionnaire survey (Appendix C) is fully anonymous and confidential. All the questions in the survey have completed a peer review, confirming that the questions will not be offensive to any groups. Before the survey starts, the researcher will briefly introduce the project to the participants, and an information sheet will be given (Appendix D). After the participants are fully informed about their rights in this research, they must consented before starting the survey.

As the data will be collected from the CCC Building Consenting Unit. The approval from CCC has been granted by the Head of the Building Consent Unit of the CCC. As the survey will be undertaken in the workplace, it is designed to be completed within five minutes. As a reward, treats (cookies and chocolate) will be prepared by the researcher as a simple gesture of thanks to thank the participants for their time.

3.6 Study Plan

The below Gantt chart (Figure.1) shows the schedule timeline for this research totalling five months, with an estimated completion date, and is aimed to be completed before Christmas 2022.

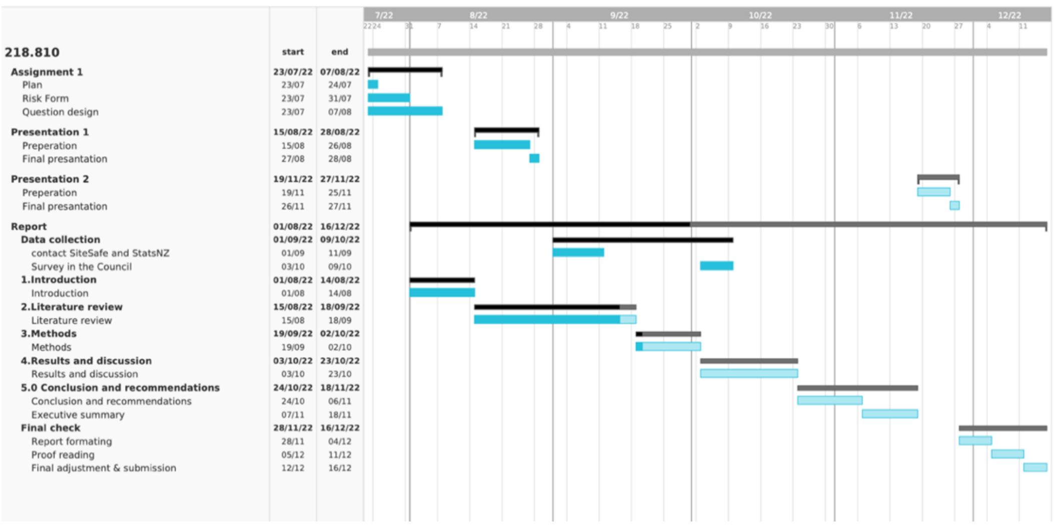

Figure 1. Study Plan

The literature review has a systemic review of twenty-four journal articles, three books, one conference paper, three New Zealand pieces of legislation, eight websites, three Council annual reports, and one case law study.

As the human ethics application has been approved for this research (Appendix A), collecting the face-to-face questionnaire survey will commence in October and is aimed to be finished with regard to data collection within two weeks. After the data has been collected, the researcher will analyse it. Then the Results and Discussion part of the report will be completed at the end of October and is data collection aims to be complete within two weeks. After the data has been collected, the researcher will analyse it. Then the Results and Discussion part of the report will be completed at the end of October. Next in November, the researcher will review and summarise the recommendations from the literature and participants while preparing for the final presentation. Finally, the report formatting will be undertaken in December and prepared for final submission.

The main reason for this research to be completed before Christmas 2022 is that it can reduce the researcher's stress during the holiday period. Also, it can help the researcher enjoy time with friends and family without study stress, which will ensure the researcher's health and safety and wellbeing.

4. RESULTS AND DISCUSSION

4.1 Survey overall

This research consisted of two stages of data collection: a paper questionnaire and an online questionnaire. In stage one of the survey, 71 out of 80 questionnaires were returned to the researcher, and 63 were valid. This was completed within five working days. As stage one the sample target was successfully achieved, with a 78% valid response rate, the stage two data collection process was not required. The Building Professional’s survey is confidential in this research, and all the individual information and raw data will not be disclosed in this report.

4.2 Demographic details

Survey Participant Information

Sixty-three Building Professionals who work at CCC Building Consent Unit participated in this research. Table 1 shows the participants' demographic details, which consisted of 57% technical roles, 33.3% supporting roles and 9.5% management roles. The gender of Building Professionals was equally distributed, comparing 29 (46%) females and 34 males (54%). Most Building Professionals were aged between 31 years to 60 years (76%), whereas those below 30 years or above 60 years were scarce at 24%. It was indicated that the average female Building Professionals were older than the male Building Professionals.

Table 1. Survey Profile Overview of Building Professionals

Characteristic	Number	Percentage (%)
Age (years)	-	-
18-30	8	12.7
31-40	13	20.6
41-50	16	25.4
51-60	29	46.0
Over 60	7	11.1
Gender	-	-
Male	34	54
Female	29	46
Role	-	-
Technical	36	57.1
Management	6	9.5
Supporting	21	33.3

Working Hours

As shown in Figure 2, more than 90% of Building Professionals work 30-50 hours per week. The majority of Building Professionals weekly working hours were between 31-40 hours (70%), and 21% of

Building Professionals worked 41-50 hours every week. Weekly working hours below 30 or above 50 were scarce.

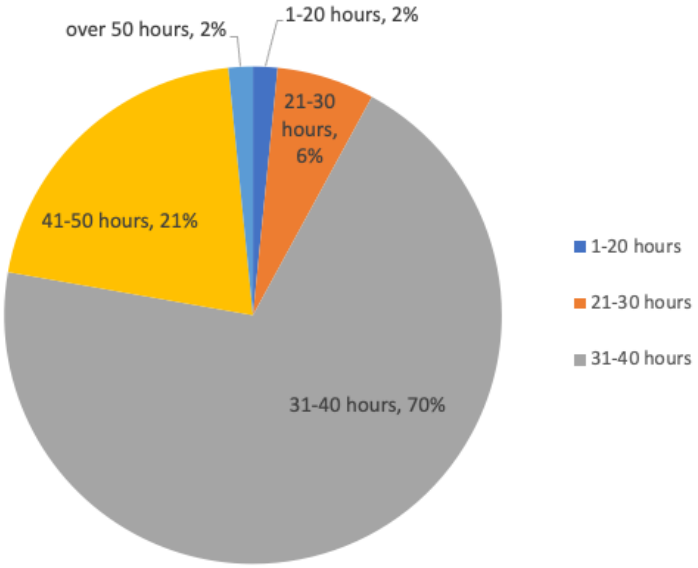

Figure 2. Average Working Hours

As shown below in Figure 3, for ages below 50, almost all Building Professionals work full-time (over 30 hours per week); ages from 51 to 60, 89% of Building Professionals work full-time; for ages above 61, only 71% of Building Professionals work full-time. For Building Professional's aged over 50, working hours were noted as decreasing when their age increases.

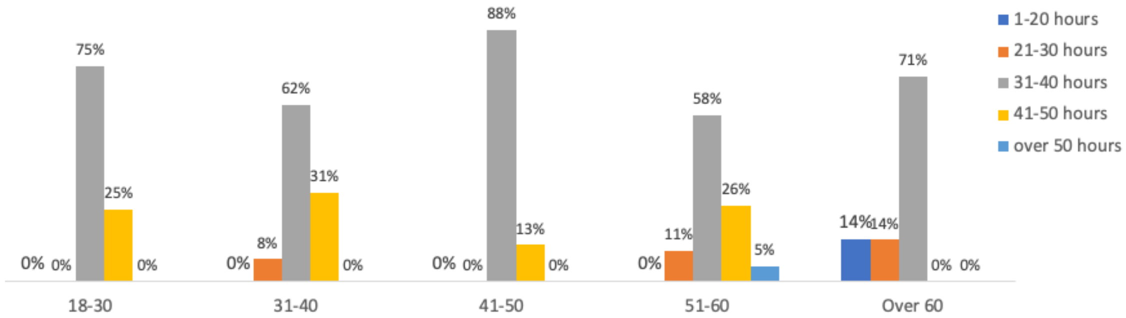

Figure 3. Working Hours by Age

As shown in Figure 4, 10% of females work less than 30 hours per week, while 6% of males work less than 30 hours per week. Male Building Professionals work slightly more hours per week than female Building Professionals.

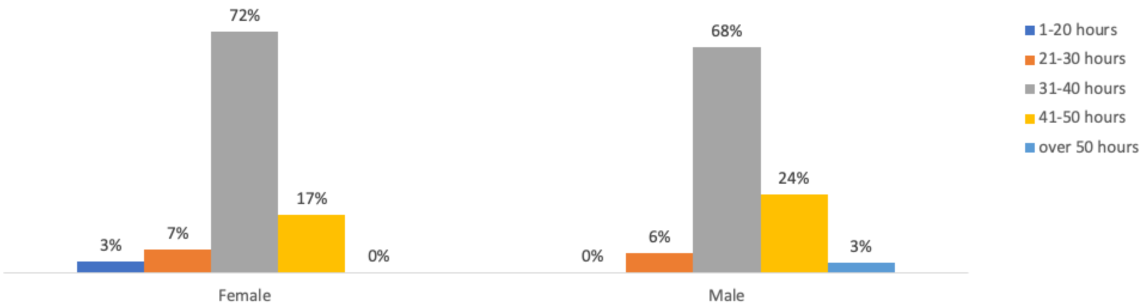

Figure 4. Working Hours by Gender

As below Figure 5, all management roles are full-time (more than 30 working hours per week), while only 90% of supporting roles work full-time and 92 % of technical roles work full-time. Most of the 40-50 weekly working hours were taken by the management role, which is more than the recorded average, and only 17% and 14% were taken by the technical and supporting roles, respectively. On average, Building Professional's in a management role need to work more.

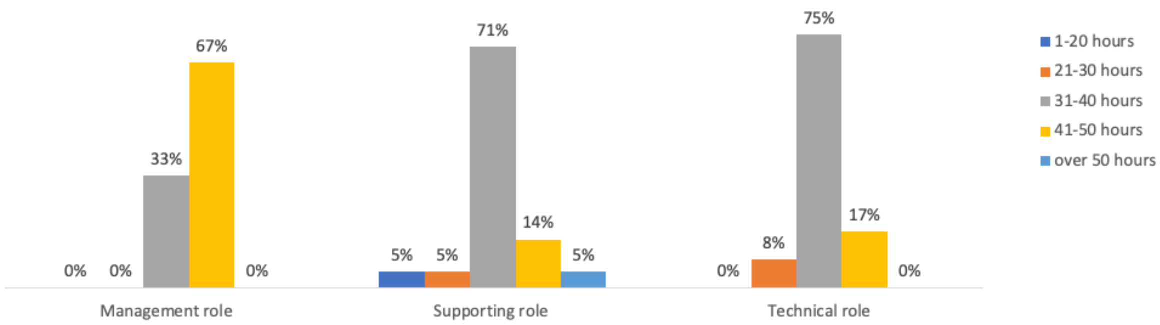

Figure 5. Working Hours by Role

Long working hours can cause physical and mental health effects, and a researched study confirmed that long periods of exposure to long working hours will increase the risk of anxiety, depression and other chronic diseases (Yixin et al., 2022). Long working hours are any hours beyond the standard working hours, as the International Labour Organisation (ILO) defined (International Labour Standards on Working Time, 2022). However, there is no clear definition for what standard working hours are. In New Zealand, the standard working hours are usually 40 hours, five days per week (Community Law, 2022). According to a human resource (HR) officer employed at the CCC, usually, full-time employee work 37.5 hours per week if in a collective employment agreement, or 40 hours per week if in an individual employment agreement. Any overtime needs to be approved by HR and the direct line manager, and usually overtime should be less than 10 hours per week. <u>This research defines working hours over 40 hours per week as long working hours.</u>

From the above analysis of Building Professionals working hours per week, it was found that age and gender have minimum effect on the total working hours, but roles have significant impact on the total working hours. 67% of the management Building Professionals have long working hours, while 23% of total Building Professionals work would work over 40 hours per week. Also, males have slightly longer worked hours compared to females.

<u>Leisure Hours</u>

As shown below in Figure 6, slightly more than half of the Building Professionals have 11-20 hours of leisure time per week. Those Building Professionals with 21-30 weekly leisure hours and less than 10 hours were counted as 17% and 22%, respectively. The Building Professionals who reported over 31 weekly leisure hours were limited.

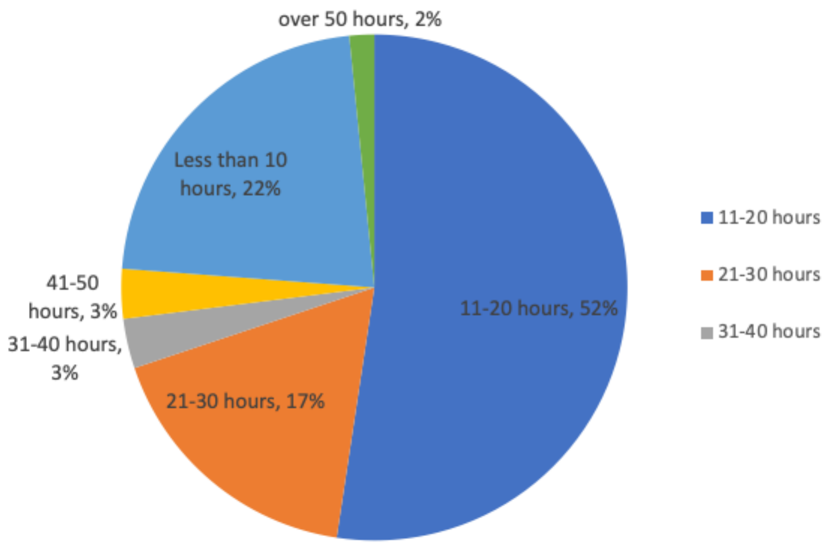

Figure 6. Average Leisure Hours Enjoyed

As shown below Figure 7, Building Professionals aged below 40 have more leisure time than Building Professionals age over 40. In the age group ranged between 41-50, 38% of Building Professionals have less than 10 hours of leisure time per week compared with an average of 22%.

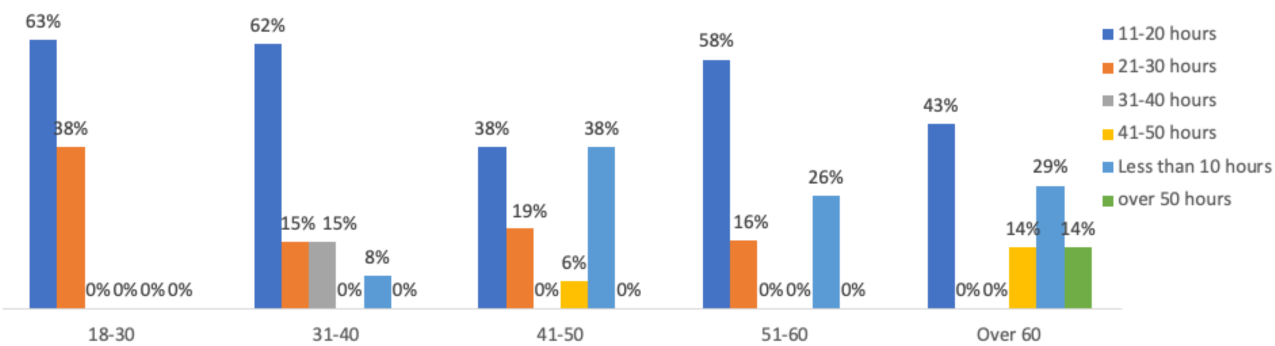

Figure 7. Leisure Hours by Age

As shown below in Figure 8, both males and females have approximately the same leisure hours.

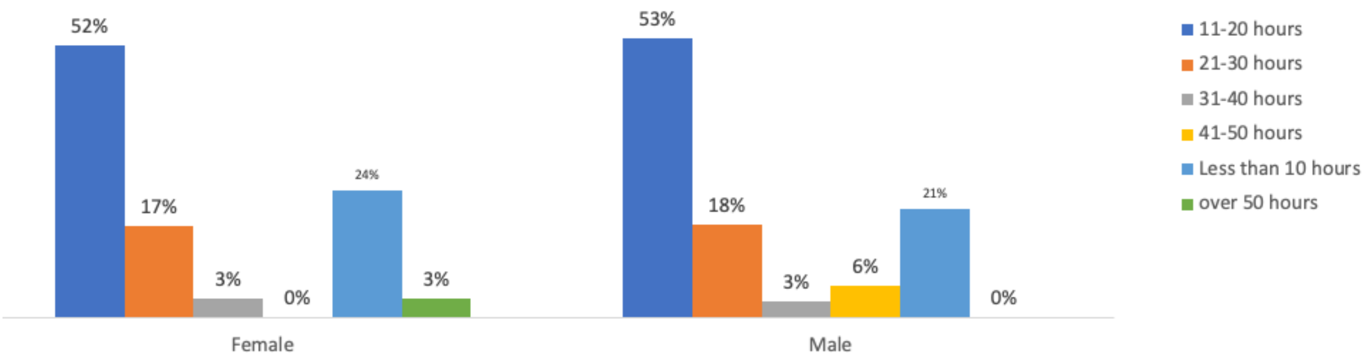

Figure 8. Leisure Hours by Gender

Figure 9 shows Building Professionals in management roles as having more leisure hours than other groups.

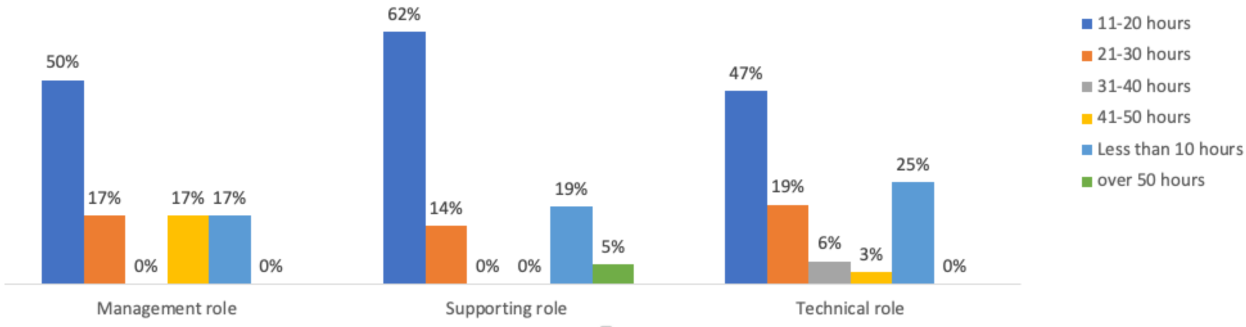

Figure 9. Leisure Hours by Role

From the above bar chart, leisure hours per week note that gender has a negligible impact on the total leisure hours, but age and role at work significantly does. Building Professionals aged less than 40 have more leisure hours than the average, and 38% of Building Professionals who are aged between 41-50 have minimum leisure time.

From the research, there was found no clear recommendations emerged on how much leisure time people need to improve their health and wellbeing. Notably, leisure time is not just time off work, which is having the opportunity to have enjoyable time; also, long leisure time does not necessarily directly result in better health and wellbeing (Umbrella Wellbeing Ltd, 2022). In a survey taken by Auckland Council in 2004, Quality of Life in New Zealand's Largest Cities, the result shows that the higher income group is more satisfied with their leisure time.

<u>Health impact</u>

As shown in Figure 10, 38% of Building Professionals noted that they have physical and mental health issues caused by work, while 10% and 37% of Building Professionals noted that they only have mental or physical health issues. Also, 16% of Building Professionals rated themselves as having no health issues caused by work.

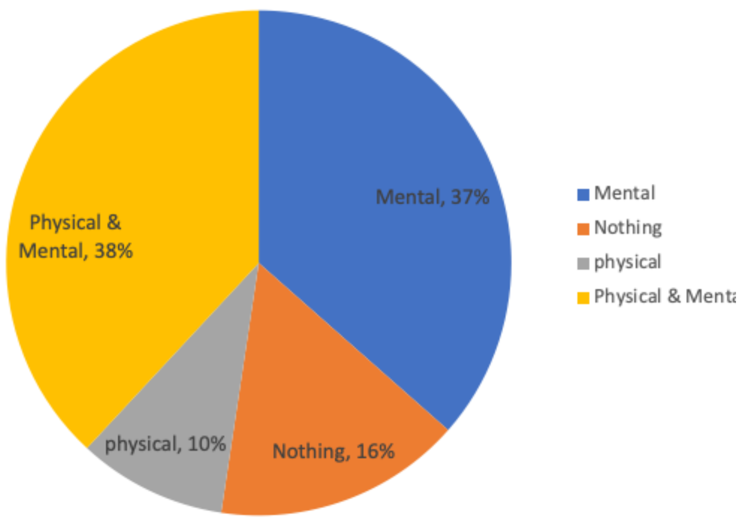

Figure 10. Experienced Health Issues

As shown below in Figure 11, 100% of Building Professionals aged between 18-30, report that they suffer mental health issues from work, and 63% of this age group believe that they also suffer physical health issues from work. In all age groups, Building Professionals rated themselves having more mental health issues than physical health issues, especially for Building Professionals between the ages of 51-60.

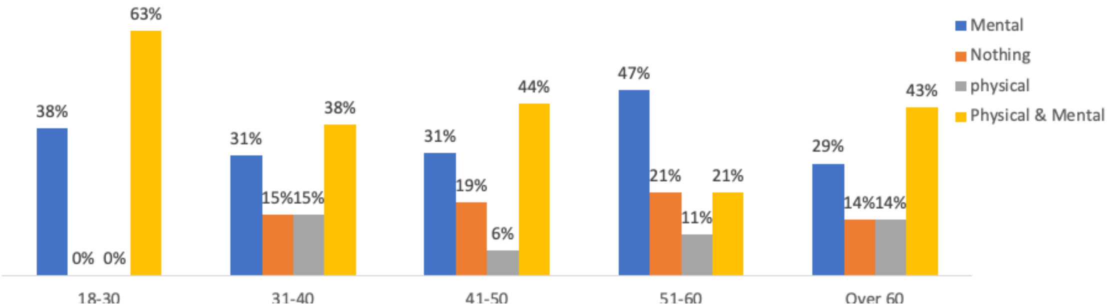

Figure 11. Building Professional Health Issues by Age

As shown in Figure 12, 38% of males and females have physical and mental health issues. Additionally, 45% of females have experienced mental issues, while 29% of males noted mental issues; There was 10% of females having no health issues from work, while 21% of males have no health issues from work.

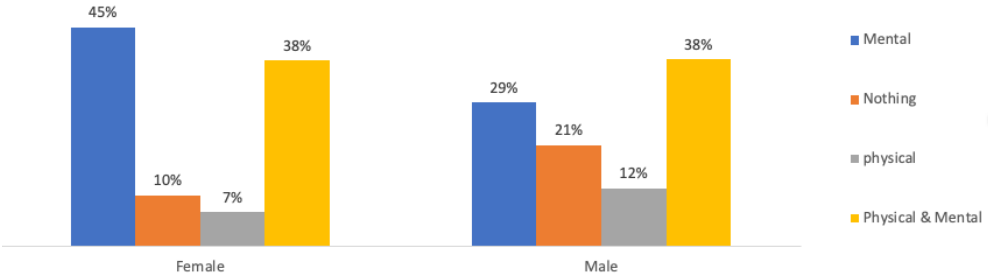

Figure 12. Health by Gender

Figure 13 shows Building Professionals in the management role are having fewer mental issues than in the other groups. 22% of Building Professionals in technical roles have and 5% of Building Professionals in the supporting role have no health issues from work.

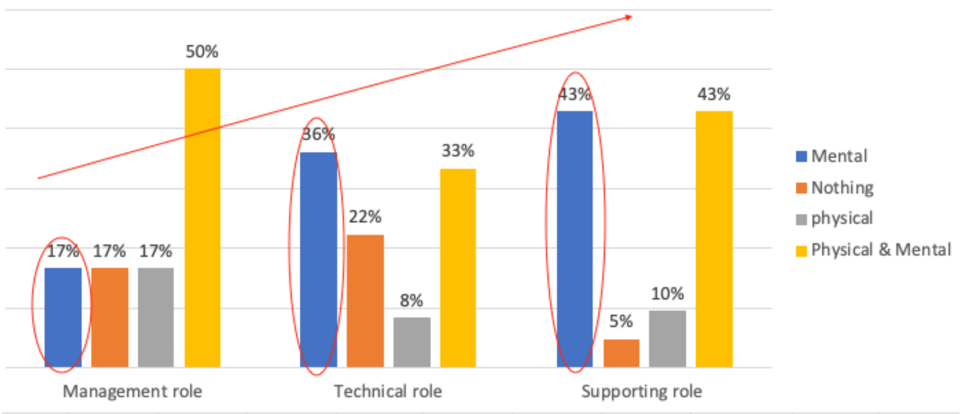

Figure 13. Health by Roles

The above analysis of health of those surveyed found that age, gender and role at work all impact their physical and mental health. A study shows Specifically this research found males have more physical issues than females and females have more mental health issues than the male. These latter findings are in line with studies showing that gender difference affects attitudes toward mental health, women are more aware of their mental health issues, and men have more communication difficulty with mental health than women (Li, 2022; Mackett, 2022). A study in the UK found income can impact workers' mental health, and lower income has higher mental health issues (Thomson et al., 2022). However while management roles have a higher income than technical and supporting roles, (and technical have a higher income to supporting roles). The research showed that those in a management role have less mental health issues than technical and supporting roles. A study conducted across Germany, Russia and the United States about the relationship between the age and wellbeing at work, found that the age and awareness of mental wellbeing depends on the nation (Schönfeld et al., 2017). However, this research found that the New Zealand Building Professionals aged below 30 have more mental health issues, however, no clear pattern or evidence was shown regarding physical health issues.

Symptoms

The question about the symptoms that Building Professionals have after a full day at work was a multiple-choice question worded as follows: Building Professionals can choose one or more symptoms that they experienced after all day working. Figure 14 shows almost half of Building Professionals suffering muscular tension from work. Furthermore 30% of Building Professionals suffering one or more following symptoms from work: headaches, anxiety, sleeping difficulty, work and/or private life distraction; also, 14% of Building Professionals suffer depression from work. 21% Building Professionals did not have any symptoms.

As below Figure 15, 3% of Building Professionals always experienced the below symptoms (from Figure 14); 25% often, and 35% sometimes. 16% and 21% of experience rarely and / or never, respectively.

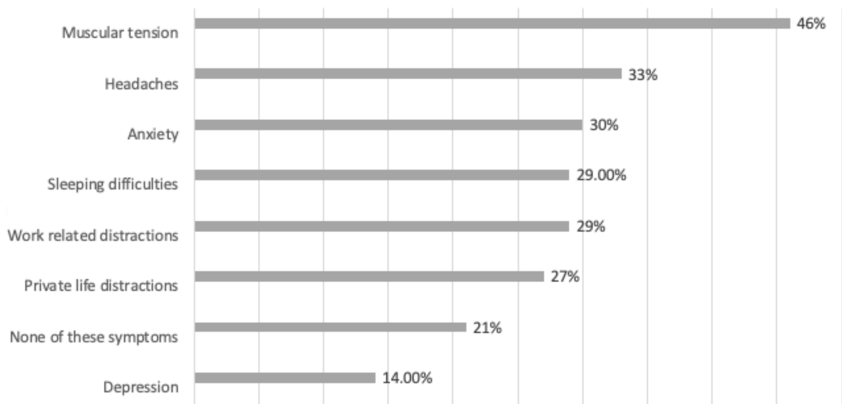

Figure 14. Symptoms

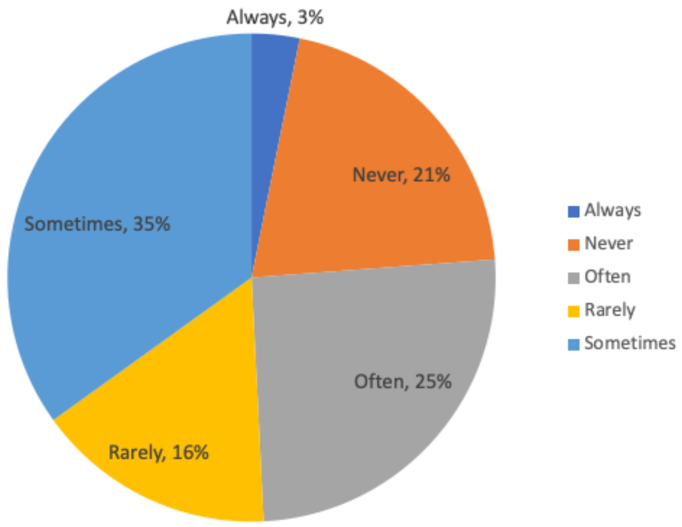

Figure 15. Symptoms' Frequency

Support from organisation

Figure 16 shows most (62%) agreed that the organisation provided adequate support for their health and safety and wellbeing. However, 38% did not agree that the organisation offered sufficient support.

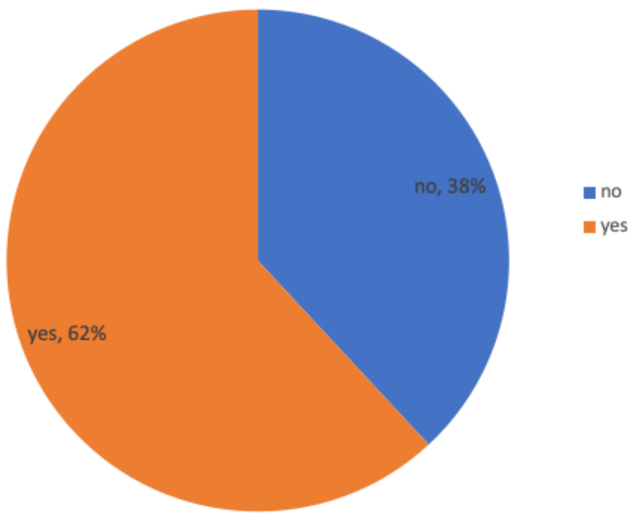

Figure 16. Support from organization

As shown in Figure 17, for ages over 60 and 18-30, only 40% received adequate support from the organization. In the age group 41-50, 88% agreed that they received adequate support from the organization.

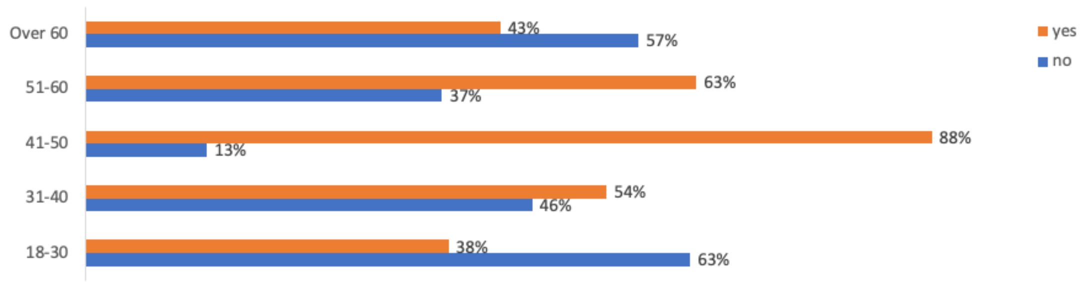

Figure 17. Support from Organisation by Age

As shown in Figure 18, more males (68%) agreed that they received adequate support from the organization, while 55% of females agreed.

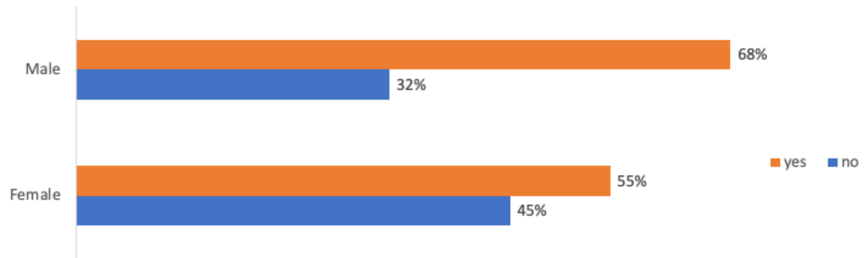

Figure 18. Support from organisation by Gender

As shown in Figure 19, 100% of the management role agreed that they received adequate support from the organization, while 64% of the technical and 48% of supporting roles agreed.

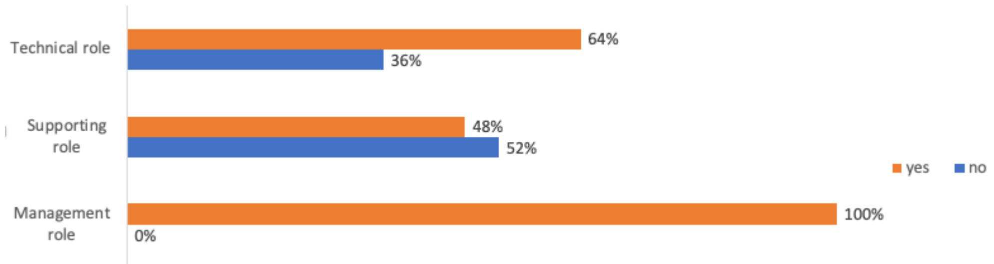

Figure 19. Support from organisation by Role

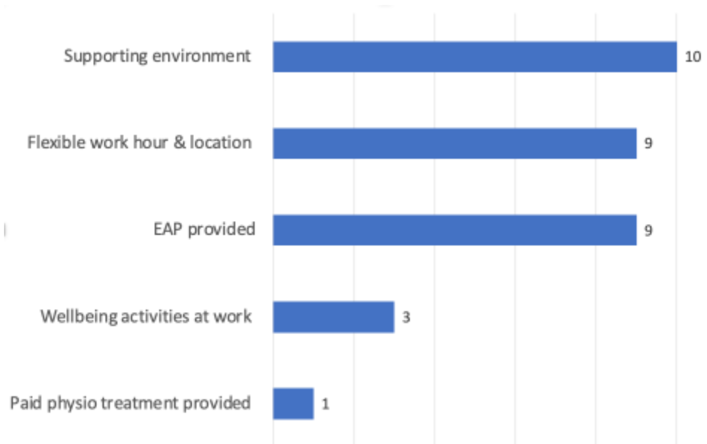

Figure 20. Satisfaction with Levels of Support

From the above analysis, the question about if the organisation provides adequate support, age, gender and role at work all impacted on their opinions. For ages between 41-50, males or management roles those surveyed agreed that they received more adequate support from their organization.

Figure 20 shows that 10 Building Professionals agreed that their organisation has a supportive working environment, and there were 9 Building Professionals happy with the fixable working environment and the EAP; also, some mentioned that wellbeing activities were provided, and physiotherapy sessions paid for.

4.3 Recommendations

An open-end question, 'In your opinion, how could you improve your Health and safety and Wellbeing at work?' was asked. 51 (81%) gave one or more recommendations, and 12 (10 male and 2 female) did not provide any advice. Figure 21 summarizes possible solutions.

Of the 52 surveyed, who gave recommendations, most suggested improving organisation policy (32 participants, 62%) and increasing their salary (28 participants, 54%). About 40% suggested reducing their workloads (22 participants) and upgrading the office requirements (19 participants). Also, indicated increasing the flexible working hours and annual leave allowance.

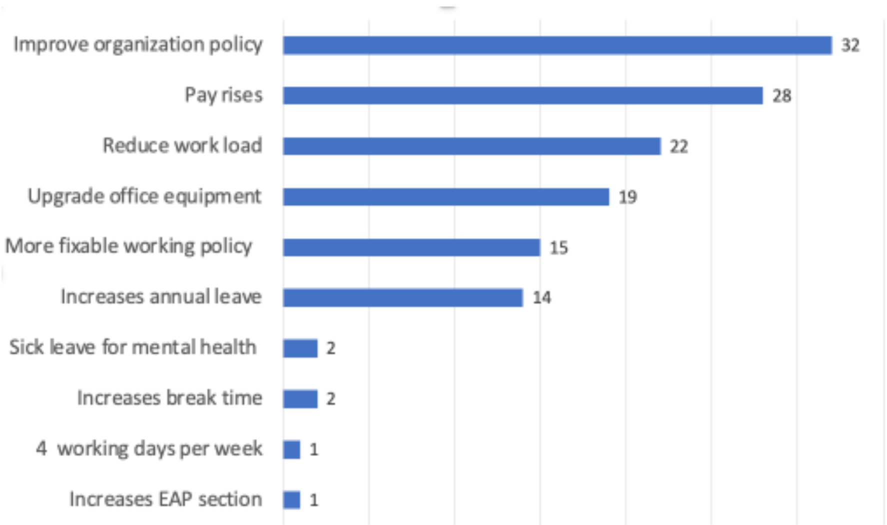

Figure 21. Recommendations from Building Professional

4.4 Summary

The data for this research was successfully collected from the CCC Building Consent Unit with face-to-face engagement within one week that also achieved the target sample size.

The above discussion section analysed the survey; the results were compared with other studies. It confirmed if age, gender and role at work would impact a Building Professional's working and leisure hours and if mental and physical health issues have an impact.

The following critical findings were found from the survey:

a) Building Professionals in management roles work long hours.
b) Building Professionals aged under 40 have more leisure hours.
c) Building Professionals have more outstanding mental health issues than physical health, especially for those under 30.
d) Female workers have greater health and safety and wellbeing awareness compared to male workers.
e) Building Professionals in supporting roles have greater mental health issues than in technical and management roles.
f) Almost half of Building Professionals suffer from muscular tension.
g) About 30% of those surveyed suffer headaches, anxiety, sleeping difficulty, and other disruptions.
h) All management roles believe the organisation provided adequate support to the workers, but only 58% of non-management role Building Professionals agreed.
i) CCC provided a supported work environment, fixable work arrangement, and free counselling section to help those surveyed with health and safety and wellbeing issues.
j) More than half of the Building Professionals suggested a better organisation policy and pay rise to improve their health and safety and wellbeing issues, reducing workload, upgrading office equipment and providing more fixable working arrangements were also suggested.
k) Female respondents provided more recommendations than males.

According to the above survey findings, the following was noted:

a) Age has a negligible impact on the Building Professional's health and safety and wellbeing. Gender and role at work significantly impact it.
b) Building Professionals suffer more mental health issues than physical health, such as anxiety and sleeping difficulty. However, physical muscular tension was noted to disrupt their wellbeing.
c) Income can significantly impact on mental health. Also, a participant noted that in a lower income role, one may need to work more hours (overtime) to get more pay to support their family.
d) There is a gap between management roles and the non-management employee regarding health and safety and wellbeing support. The manager (or team leader) believed they provided enough support for their team members; however, only 58% of team members agreed.
e) Some Building Professionals are happy with their fixable working agreement they received, but some did not. As the CCC fixable working agreement policy is different for everyone, some would receive a more fixable arrangement, and the reasons for this were undisclosed.

There are three objectives in this research: a. To investigate the health and safety and wellbeing issues that the Building Professional faces at work; b. To investigate support mechanisms that the workplace currently provides to the Building Professional; c. To provide recommendations to improve the health and safety and wellbeing of Building Professionals.

The research survey found that Building Professionals face significant mental health issues and some physical health issues at work. A fixable working arrangement can help their wellbeing, and the EAP section can help their mental health, as paid physio sessions can help their physical health. The respondents also provided some recommendations on how to improve their health and safety and wellbeing issues, however, this is discussed further in Section 5.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Review of Research Objectives

In this research, there were three objectives: a). To investigate the health and safety and wellbeing issues that the Building Professional faces at work; b). To investigate support mechanisms that the workplace currently provides to the Building Professional; c). To provide recommendations to improve the health and safety and wellbeing of Building Professionals.

Objective a). in this research was to investigate what health and safety and wellbeing issues Building Professionals confront at work. The literature review indicated that office workers usually face work-related stress and musculoskeletal disorders, which would cause mental and physical health issues. Also, NZ legislation HSAW noted that employers must provide support to prevent worker's physical and mental health risks at work. The organisation surveyed for the research was CCC Building Consent Unit. It was found that over 80% of Building Professionals faced mental and/or physical health issues at work, especially mental health ones. Female workers were found to be more aware of mental health issues than their male counterparts.

The objective b). in this research was to investigate what support mechanisms the workplace currently provides Building Professionals. The literature review indicated that reducing sedentary behaviour and occupational stress at workplace can improve worker's health. In New Zealand, many employers would provide a free counselling service to support their employee's wellbeing. It was found that 100% of management role workers believe that the organisation provided adequate support, and 58% of non-management position workers agreed. Building Professionals also noted that CCC provided a supportive work environment, a fixable working agreement, paid counselling, and physiotherapy for their health and safety and wellbeing.

Objective c). of this research was to provide recommendations to improve the health and safety and wellbeing of Building Professionals. The literature review indicated that decreasing the time sitting at work can reduce the impact of sedentary behaviour on the workers, and that having an adequate ethical policy can help the workers reduce occupational stress. In this research, more than half of the participants suggested improving the organisation policy, beyond the health and safety and wellbeing policy.

Some Building Professionals suggested to increase their pay, and they explained the significant workload and high levels of stress faced at work. The income they receive does not reflect their value as perceived by their employer; also, the limited pay raise they received is significantly lower than the inflation rate which has resulted in many of them to work overtime to support their family. Participants also suggested upgrading the office equipment, such as an adjustable height desk, a bigger monitor, and a personal fit mouse.

The participants also noted that their employer did provide suitable workstations. However, the process and time to request these added to frustration and increased anxiety levels.

Recommendations from the researcher will be provided in Section 5.3.

5.2 Significance of Research Findings

An adequate organisational policy can improve the Building Professional's health & safety, and wellbeing and improve their performance, productivity, and customer service delivery (Badul & Subban, 2022). Public sector management skills can directly impact on the public sector's productivity (Nasios, 2021).

The survey showed gender and roles at work can significantly impact on occupational health. Females are more aware of their mental health issues and are more open to talk about them and giving recommendations to improve their health. The position at work is directly linked to income. This research confirmed that lower income positions have lesser leisure time and greater mental and physical health issues.

There is a significant gap in the satisfaction rate between management roles and non-management ones about the support they received. All management role participants agreed that their employer provided adequate support, and those who also supported their team members. However, only half of the team members agreed that their employer offered sufficient support, which concluded that managers and team players need to communicate more.

The recommendations and the example of support from CCC workers showed that CCC provide support for their employed Building Professionals about health and safety and wellbeing; however, it is hard for all individuals to receive this support. It also confirmed that there is a lack of transparency about how to obtain such support. For example, many participants are happy with their flexible working agreements, some worked full-time from home, while many participants suggested increasing their working from home hours. Some participants were also happy with the provision of an adjustable height desk to improve their physical health, although noted that the process to request one was challenging. The level of support was found to be based on individual situations, which can cause different outcomes.

5.3 Recommendations

From the literature review and survey findings, the recommendations are discussed as follows:

<u>For Employer</u>

The employer should enhance the organisation policy (not limited to health and safety and wellbeing policy) by:

- Pay reviews that consider the current inflation rate;
- Provision of counselling;
- Offers of physiotherapy;
- Increase flexibility to working location and hours;
- Reviewing current workloads and consider additional resources;
- Providing appropriate ergonomic office equipment;
- Increasing annual leave allowance.
- Provide suitable health and safety and wellbeing induction for all employee.

- ✧ Provide external professional organization's health and safety and wellbeing training for all employees.
- ✧ Update current health and safety and wellbeing policy, that include a clear instruction about how employee receive health and safety and wellbeing support from the organisation.

For Building Professional

The individual should pay more attention and improve their awareness of their occupation health and safety and wellbeing by:

- ✧ Talking to someone when they feel physically and / or mentally ill, for example a family member, workmate or medical professional;
- ✧ Request for help from their employer when needed;
- ✧ Talk to their direct line manager;
- ✧ Take breaks often;
- ✧ Exercises often.

For Law and Regulations

- ✧ The government should enhance and revise the current Health and Safety at Work Act, by considering more mental health issues and chronic disease at the workplace.
- ✧ The government should provide some standards for organisations to enhance their employee working environments. For example, types, form and function of equipment, including office furniture that will benefit their physical health, and how they can improve their mental health through training and adequate resourcing.

5.4 Original Research Contribution

The literature review identified common health and safety and wellbeing issues that office workers face at work and how they impact on their health. Also, it identified statutory responsibilities.

In New Zealand, there is limited research or guidelines from the government about office workers' occupational health and safety and wellbeing. The research survey confirmed that there are severe mental and physical health issues in the workplace. This research can provide government and employers on how they can improve worker's occupational wellbeing.

5.5 Research Limitations

The major limitation of the research project is the participants' sample size of 63. Also, over 57% of the participants were in a technical role, representing only some of the Building Professionals within CCC.

The Building Professionals survey only profiled one Building Consent Authority and Territorial Authority, Christchurch City Council.

5.6 Conclusions

Health and safety and Wellbeing is critically important for all professionals, including office-based workers. This research found Building Professionals have great work-related stress, and long-time sitting times at work that have led to musculoskeletal disorders and caused mental and physical health issues.

The survey confirmed that Building Professionals have severe mental health issues. Male workers seemed to pay less attention to this. A lack of communication between the management team and the team members was also noted when referring to the organisation's relevant policy.

The research has provided recommendations to employers, employees, and the government about improving health and safety and wellbeing in the workplace based on a robust survey of Building Professionals.

In conclusion, occupational mental health and chronic health issues also need to be strongly considered when considering health, safety and welling within the workplace.

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APPENDICES

Appendix A – Human Ethics Notification Email

From: humanethics@massey.ac.nz
Subject: [HE007] - Human Ethics Notification - 4000026568
Date: 26 August 2022 at 4:25 PM
To: Cara.Chen.2@uni.massey.ac.nz, C.L.Flemmer@massey.ac.nz, G.Chawynski@massey.ac.nz
Cc: humanethics@massey.ac.nz

H

Kia ora,

Link to the application
HoU Review Group

Ethics Notification Number: 4000026568
Title: What health & safety and wellbeing issues currently confront professionals working in the building industry that undertake roles in certifying projects.

Thank you for your notification which you have assessed as low risk.

Your project has been recorded in our database for inclusion in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Professor Craig Johnson, Director (Research Ethics), email humanethics@massey.ac.nz."

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish require evidence of committee approval (with an approval number), you will have to complete the application form again answering yes to the publication question to provide more information to go before one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

You are reminded that staff researchers and supervisors are fully responsible for ensuring that the information in the low risk notification has met the requirements and guidelines for submission of a low risk notification.

If you wish to print an official copy of this letter:

1. Please login to the RIMS system (https://rme.massey.ac.nz).
2. In the Ethics menu, select Ethics Applications.
3. Using the Advanced search with appropriate criteria to find only this application.
4. With the application on the Results tab, select Reports from the toolbar.
5. Select the "Human Ethics - Low Risk Notification Letter" link, this will open the report viewer.
6. Select the application code from the Report Parameters dropdown and submit. You can then select an export option from the top toolbar (Print, Save).

Yours sincerely
Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and
Director (Research Ethics)

Appendix B – Transcript Release Authority

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

SCHOOL OF BUILT ENVIRONMENT

RESEARCH TOPIC:

What health & safety and wellbeing issues currently confront professionals working in the building industry that undertake roles in certifying projects.

AUTHORITY FOR THE RELEASE OF TRANSCRIPTS

I confirm that I have had the opportunity to read and amend the transcript of the interview(s) conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

Signature: .... **Date:** ....

Full Name - printed ....

Appendix C – Questionnaire Template

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

SCHOOL OF BUILT ENVIRONMENT

RESEARCH TOPIC:

What health & safety and wellbeing issues currently confront professionals working in the building industry that undertake roles in certifying projects.

A SURVEY:

Section 1: Personal Information

Q1: Age: 18-30; 31-40; 41-50; 51-60; over 60

Q2: Gender: Male; Female; Rather not say

Q3: What is your current role in the Building Consenting Unit:
- Management role.
- Technical role.
- Other supporting role for building consenting.

Section 2: Health & Safety and Wellbeing Problems:

Q4: How many hours do you work per week (on average)?
Less than 10 hours; 11-20hours; 21-30 hours; 31-40 hours; 41-50 hours; over 50 hours

Q5: How many hours do you put aside for leisure time and/or time with friends & families (on average)?
Less than 10 hours; 11-20 hours; 21-30 hours; 31-40 hours; 41-50 hours; over 50 hours

Q6: What issues in the following categories impact on you during work? For example:
- Physical
- Mental
- Physical & Mental
- Nothing

Q7: After a full day's work, have you ever felt the following symptoms? (Can be multiple)

Headaches	Muscular tension	Sleeping difficulties
Depression	Anxiety	Work related distractions
Private life distractions	None of these symptoms	Other

Q8: How often do the symptoms you selected in Q7 have you experienced?
Always Often Sometimes Rarely Never

Q9: Are you given adequate support from your work organisation?
Yes No
If Yes, what type and level of support?

Section 3: Open-Ended Question:

Q10: In your opinion, how could you improve your Health & Safety and Wellbeing at work (for example, reduce working hours, increase leisure time, receive more support?

Appendix D – Participant Information Sheet

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

SCHOOL OF BUILT ENVIRONMENT

RESEARCH TOPIC:

What health & safety and wellbeing issues currently confront professionals working in the building industry that undertake roles in certifying projects.

INFORMATION SHEET

This research report presented in partial fulfilment of the requirements for the degree of Master of Construction in Construction Law. The researcher is Cara Chen, a postgraduate student at Massey University.

This research will investigate what health & safety and wellbeing issues currently confront professionals working in the building industry that undertake roles in certifying projects.

This project involves a questionnaire survey. This questionnaire aims to investigate the building professional health & safety issues that they currently facing.

As a building professional, you are invited to participate in this project questionnaire part. It will cost 5-10 minutes to finish the questionnaire. No payments or other compensation will be given to the participants. Your contribution will be highly appreciated.

Data Management
All the information/data collected for this project will be confidential. The data will be locked. Only the researcher and supervisor can access this confidential data.

Participant's Rights
You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- *decline to answer any particular question;*
- *withdraw from the research (specify timeframe);*
- *ask any questions about the research at any time during participation;*
- *your name will not be used; all participants will be anonymous.*

Project Contacts

- *Researcher: Cara Chen* [redacted]
- *Supervisor: Gregory Chawynski* G.Chawynski@massey.ac.nz

Disclaimer:

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Dr Claire Flemmer, Course Coordinator, Research Project (218.810), c.l.flemmer@massey.ac.nz