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**Supporting the Mental Health of Dietetic Students:
Perspectives from Work-Integrated Learning Supervisors**

A thesis presented in fulfilment of the requirements for
the degree of Master of Science (Human Nutrition)

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ABSTRACT

Background: Universities worldwide are becoming increasingly aware of student mental health. Anecdotal information gathered from dietetic educators at Massey University has indicated that work-integrated learning (WIL) is highly stressful for some students, with achievement of competency on placement significantly hindered by their mental health. Research thus far has focussed on student perspectives. However, supervisors play a key role in supporting WIL, coaching students, and assessing performance. Therefore, this current study aimed to explore workplace supervisors' perceptions of student mental health and wellbeing during their WIL programme and their role in supporting students in this context.

Methods: An exploratory mixed-method approach was used to conduct a two-phased study. Firstly, a quantitative online survey (n = 80; 60%) was sent to 133 supervisors from the Massey University MSc (Nutrition and Dietetics) WIL programme and results analysed using descriptive statistics and correlation analysis. Secondly, semi-structured recorded interviews (n = 11) were undertaken with a sample of survey respondents. Professionally transcribed data were analysed using thematic analysis to evaluate supervisor experiences.

Results: Supervisors noted variability among students, with some mentally thriving during WIL, but more others significantly struggling, and many being influenced across individual-, relationship- and organisational levels. However, most supervisors (69%) only felt 'somewhat confident' or 'not confident at all' in recognising signs of anxiety and depression. Almost all (92%) had no formal mental health training. The supervisory relationship was identified as an important influence (positive and negative) on student mental health and wellbeing.

Conclusions: Key approaches described by supervisors to support student mental health and wellbeing during WIL include the creation of a sense of belonging for students within the workplace, using appropriate supervisory styles which align with mentoring and coaching techniques, adopting culturally responsive supervision and allocating dedicated or consistent supervisors for each student. Potential strategies to support workplace supervisors in their role were also identified, such as mental health first aid and resilience training.

DEDICATION

I dedicate this thesis to my late father, Rishi Dass Soniassy, who wholeheartedly encouraged me to pursue my Master's degree when the opportunity arose. He believed in continuously learning and extending oneself, and has been the perfect role-model. He supported my passion for food and cooking when growing up, often searching different supermarkets for all the various ingredients I needed for class and exams, never once complaining. Dad, thank you for believing in my dream. I miss you and look forward to the day we meet again.

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Andy, I would not have made it this far, this fast, without your incredible encouragement and efforts in keeping me motivated. Thank you for demystifying the research process, for your constant support no matter the time or day, and for celebrating all my wins along the way, even the smallest. You truly are an amazing mentor.

Rozanne, you are such an inspiration to me. It has been an absolute privilege to work with you over the years and I am very grateful that you joined me on this journey. Thank you for all your wonderful help, your attention to detail, and for always believing that I could do this.

Special thanks to Carlien Van Der Merwe for organising and undertaking the participant interviews. Similarly to Hajar Mazahery and Jamie de Seymour for their guidance with the statistical analysis. I am also very grateful to Dr Claire Margerison, lead researcher on the PRiDE study, for her encouragement and for willingly sharing her expertise, resources and useful tips.

I would like to extend my sincere gratitude to all the study participants. Without their contribution, this research would not have been possible. Likewise to my dietetic students for sharing their journey with me, including their struggles, and inspiring this research. I truly hope that the findings will guide stronger support mechanisms during your WIL experiences.

Thanks should also go to my family, especially my mum and sister, for their unconditional love and support. I am also grateful to my friends for always being there to lift my spirits during challenging times. Lastly, thank you Emil, for showing me that I am braver and stronger than I ever imagined.

MOTIVATION FOR THE RESEARCH

How I got involved in dietetics

Growing up in Mauritius, my parents were very health conscious and placed much importance on good nutrition. We had herb and vegetable gardens, and several fruit trees in the backyard. I was also surrounded by a mother and grandmother who loved to cook. My home environment spurred an interest in cooking and choosing Home Economics/ Food Studies as a main subject for A-levels. Alongside my passion for food, was a keen interest for the human body likely originating from my obsession with ‘*Il était une fois... la vie*’ as a child - a French animated series which tells the story of the human body for children. I initially wanted to pursue medicine to become a paediatrician but realised I did not have the stomach for it. I felt that a career in nutrition and dietetics perfectly merged my two main interests – food and the human body. I left Mauritius to complete a Bachelor of Nutrition and Dietetics at Flinders University in South Australia, later specialising in paediatrics as a practising dietitian in Auckland. I have worked as a clinical dietitian in various hospital settings across both Australia and New Zealand (NZ). All my roles included an element of student training, which I have always thoroughly enjoyed. I subsequently took on a student coordination role within my hospital workplace before deciding to pursue this interest further by joining Massey University.

My role at Massey coordinating the postgraduate dietetics WIL programme

I have been involved in the Dietetics@Massey work-integrated learning (WIL) programme from inception in 2012. The programme has grown over the years, starting with a cohort of ten Masters students to twenty-nine in 2023. WIL sites have also expanded from three to include seven Te Whatu Ora / Health New Zealand Hospital Regions (previously District Health Boards) across the North Island and several Auckland based public health nutrition organisations as well as food industry and large-scale catering facilities. I manage the WIL programme across the three practice contexts for Dietetics in NZ: medical nutrition therapy, food service management and public health nutrition. My key responsibilities include scoping and arranging student placements in the workplace, collaborating with different host organisations to ensure that the programme supports positive learning experiences, and enable students to achieve registration competencies.

In my coordinator and supervisor roles, I also provide student mentoring and conduct formative and summative assessments during WIL, as well as provide training and guidance to placement supervisors to support them in their roles. I have noticed a shift in student resilience over the past few years, with several students needing significant additional pastoral support to complete WIL placements successfully. From personal experience, while extremely rewarding, WIL can also be extremely stressful. Anecdotally students have struggled or failed to meet placement milestones due to high levels of anxiety, panic attacks or depression. Often these instances would have seen better outcomes had the student voiced their struggles early or had WIL supervisors recognised warning signs and taken appropriate action swiftly.

I therefore consider the PRiDE (*Promoting Resilience in Dietetic Education*) study led by Deakin University, exploring the impact of the placement experience on the mental health of dietetic students in Australia and NZ, to be very worthwhile and relevant research. Findings will help identify the prevalence of mental health conditions in the dietetic student group and provide input on ways to support student mental health and wellbeing.

This current research will also be very valuable to my work, as a significant part of my role involves preparing students for their WIL programme. My role also involves ensuring that WIL supervisors are well equipped to train and mentor students as they work towards achieving the professional standards and competencies for dietitians. First-hand experience has shown me that attitudes of and approaches from WIL supervisors have a critical role in defining the success of their WIL student. Hence, my motivation to pursue research that specifically seeks to explore supervisors' perspectives, their experience and confidence working with WIL students during their placements, to help inform possible strategies to support these students' mental health and wellbeing.

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1. INTRODUCTION

What mental health needs is more sunlight, more candor, and more unashamed conversation. Glenn Close

1.1 BACKGROUND TO THE RESEARCH

1.1.1 *Work-integrated learning*

While there is no agreed-upon single definition of WIL, it is recognised internationally by academics, researchers and practitioners as a term that encompasses a wide range of approaches to incorporating the workplace into academic learning (WILNZ, 2020). WIL acts as bridge for the student between the academic present and their professional future, merging theoretical knowledge gained in academic studies with workplace experiences by developing relevant professional skills in preparation for future career opportunities (Martin et al., 2010; Martin et al., 2019). The definition chosen for this thesis, also adopted by the International Journal of Work-Integrated Learning, is from Zegwaard et al. (2023) who define WIL as “An educational approach involving three parties - the student, educational institution, and an external stakeholder - consisting of authentic work-focused experiences as an intentional component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to the students' discipline of study and/or professional development”. A useful illustration of the stakeholder links described is provided by Rajab (2015) in Figure 1.1.



Figure 1.1 Stakeholder links during WIL (Rajab, 2015)

WIL, often in the form of practicum, placements or internships, is an increasingly common feature of the tertiary education landscape and encompasses a wide range of educational activities designed to apply theoretical and practical learning within a workplace context (Atkinson, 2016; Brown, 2010; Gillett-Swan & Grant-Smith, 2018). Generally unpaid, participation in WIL can range from short-term work experiences through to extended work placements that last for many weeks (Grant-Smith et al., 2018; Patrick et al., 2008).

1.1.2 WIL and dietetics in New Zealand

Dietetic training in NZ is informed by a competency-based approach and includes a significant WIL component. While the terms placements, practicums and internships are used interchangeably to describe WIL experiences and the practical training of students in NZ workplaces, this study will use the term 'placement', which is the most widely used and understood term in the local dietetic context. At present in NZ, students are required to complete a minimum of 800 hours' placements, of which 640 hours is workplace training, across the three key dietetic practice contexts: medical nutrition therapy, food service management and public health nutrition (Dietitians Board of New Zealand, 2018). The NZ context is very similar to what has been reported internationally in terms of WIL exposures. While there is increasing trends and recommendations towards diversifying exposures to better reflect the wide range of roles that dietitians work across, public hospitals remain the most utilised WIL placement setting, and the major area of employment for dietitians (de Looy et al., 2015; Dietitians Board of New Zealand, 2021; International Journal of Work-Integrated Learning, 2018; Morgan et al., 2020).

1.1.3 WIL and dietetics at Massey University

Massey University has been providing dietetics training since 2012. The Master of Science (MSc) in Nutrition and Dietetics programme is taught over two years, with the first year focussed on theoretical foundations. Some WIL experiences are scaffolded through the first year to introduce students to dietetic practice in workplace contexts but most of the WIL programme is undertaken in the second year alongside a research project. All WIL experiences aim to provide safe and supported learning environments. The WIL programme comprises of twenty-one weeks (840 hours), including twelve weeks of full-time training in medical nutrition therapy within hospital settings and three weeks of food service management

training specifically in a hospital kitchen. In addition, students have one week of workplace training across non-hospital settings for both the medical nutrition therapy and food service management practice contexts, as well as four weeks of full-time training in public health nutrition settings which include workplaces such as charities, non-governmental organisations, and primary care services.

1.2 THEORETICAL FOUNDATIONS

1.2.1 Mental health, wellbeing, and the Te Whare Tapa Whā model

While there still is no consensus on the definition of mental health, there is resounding agreement that mental health is more than the absence of mental disorders and that it is an integral part of health (Beyond Blue, 2021; Galderisi et al., 2015; Huber et al., 2011; Manwell et al., 2015; WHO, 2004). This approach strongly echoes NZ's *Te Whare Tapa Whā* model of health, developed by Sir Mason Durie (Figure 1.2). *Te Whare Tapa Whā* is grounded in Māori philosophy and emphasises a holistic approach, *hauora*, to health and wellbeing, identifying four cornerstones: *taha tinana* [physical health], *taha hinengaro* [mental health], *taha wairua* [spiritual health] and *taha whānau* [family health] (Durie, 1994; Durie, 1985). *Taha hinengaro* [mental health] encompasses the capacity to communicate, to think, and to feel. It recognises that mind and body are inseparable, and describes thoughts, feelings and emotions as integral components of the body and soul. It also includes how we see ourselves in this universe, our interaction with that which is uniquely Māori, and the perception that others have of us (Ministry of Health - Manatū Hauora, 2017).



Figure 1.2 Te Whare Tapa Whā model (Durie, 1994)

The definition of mental health chosen for this thesis is the one adopted by the Mental Health Foundation of New Zealand from the Public Health Agency of Canada, and which best reflects *Te Whare Tapa Whā*:

Mental health is the capacity to feel, think and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and spiritual wellbeing that respects the importance of culture, equity, social justice and personal dignity (Public Health Agency of Canada, 2014).

1.2.2 Mental health, wellbeing, and the socio-ecological model

Using a socio-ecological framework to describe the interconnected roles of the social and environmental determinants of mental health is becoming increasingly pertinent (Antonis & Isabella, 2021; Kousoulis & Goldie, 2021; Lisnyj et al., 2021). This thesis draws on recent work by Michaels et al. (2022), from the University of Minnesota, who created a socio-ecological model (SEM) of mental health and well-being (Figure 1.3) to visually illustrate the individual, family, organization, community and societal factors that influence mental health and wellbeing. The authors hope their ecological model will help with some “big picture” rethinking about mental health to promote a range of strategies across these domains (Michaels et al., 2022).

Te Whare Tapa Whā (Durie, 1994) and SEM (Michaels et al., 2022) were chosen to form the core theoretical foundation for mental health and wellbeing in this study as they were felt to be most pertinent to the NZ context. While *hauora* is a Māori philosophy of health unique to NZ, the concepts of the SEM help to illustrate *hauora* as a holistic understanding of health and wellbeing. Te Whare Tapa Whā and the SEM interface at all levels, but especially at the relationship and community level, emphasising wellbeing as a feature of interactions with others, and society as a whole.

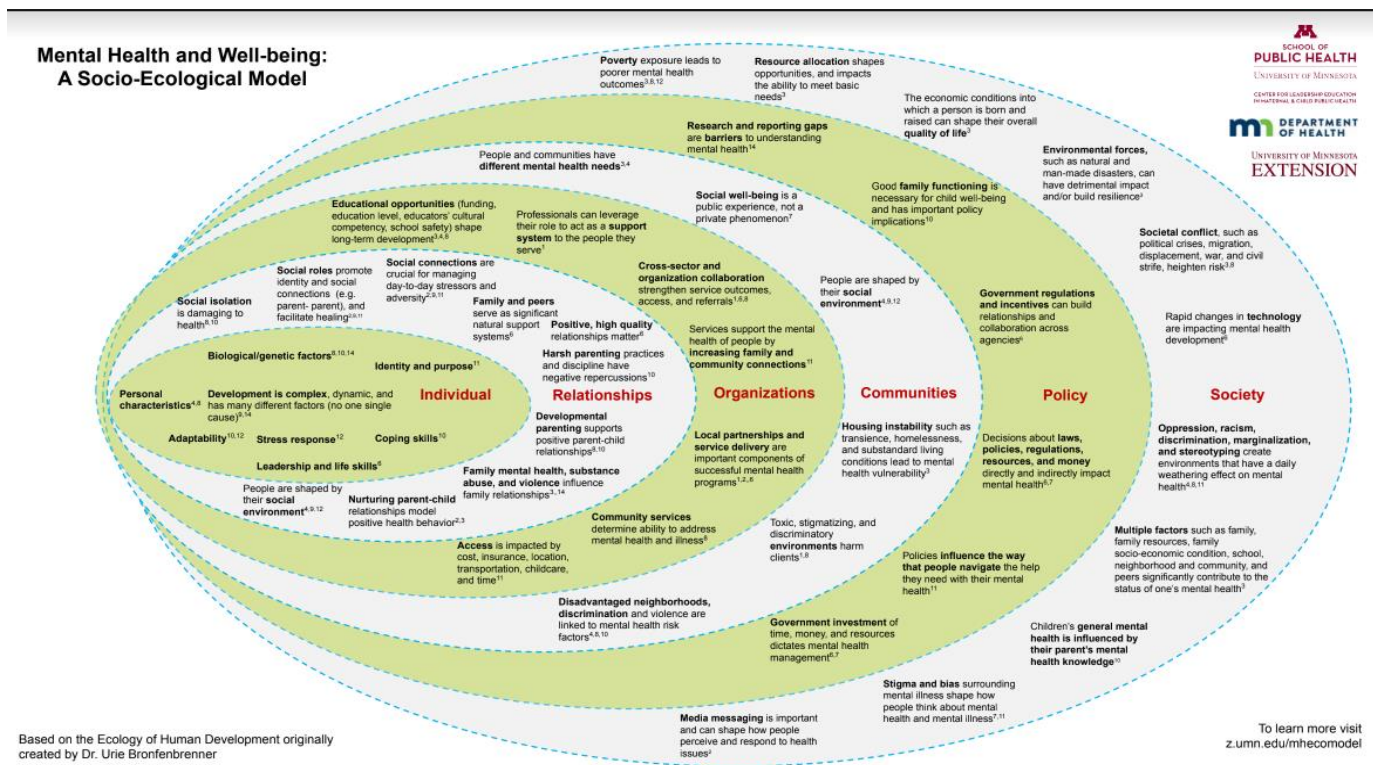


Figure 1.3 Mental Health & Well-being: A Socio-Ecological Model (Michaels et al., 2022)

1.3 RATIONALE

1.3.1 Why the topic needs investigating

Over the past few years, dietetics educators at Massey University have increasingly noticed that WIL can be highly stressful for some dietetics students, sometimes greatly affecting their ability to achieve competency standards on placements. It is a perception not unique to Massey University, as reflected by the dietetics teaching team at Deakin University in Australia reporting that some of their students' abilities to meet the requirements of the course, and in particular meet competency standards on vocational placements, is impacted (at times significantly) by the student's mental health (Evans & Margerison, 2015). Similarly, nutrition and dietetics educators at Griffith University in Australia, have reported high practicum failure rate and students finding placement in the hospital environment stressful, with negative mental health impacts (Ross et al., 2022). In growing a profession ready to address future challenges and opportunities, including in times of crisis, it has never been more important to look after the mental health and wellbeing of budding dietitians, together with instilling self-care and resilience, so they can more effectively serve our communities.

In 2020, the School of Sport, Exercise and Nutrition at Massey University joined the *Promoting Resilience in Dietetic Education (PRiDE)* study, a multi-university study undertaken across Australia and NZ. The first arm of the study, entitled '*The impact of the placement experience on the mental health of dietetic students*', sought to gain an understanding of how to best support the mental health and wellbeing of dietetics students during their placements. The study aimed to assess the prevalence of psychological distress among dietetics students, determine the stressors they experienced, describe their current methods of coping, and explore new methods of supporting student mental health and wellbeing. Dietetic students from Massey University were recruited by the PRiDE research team based at Deakin University in Australia. Recruitment was facilitated by the dietetic staff at Massey University, who provided the dietetic students with information about the research, and distributed the recruitment email and survey link which were administered by the Deakin University team. Findings from this multi-university study are underway and will be used to inform a potential intervention to support the mental health and wellbeing of dietetics students; this intervention could be transferrable to students in other health disciplines.

A second arm of the PRiDE study looked to gain an understanding of how placement supervisors influence the mental health and wellbeing of dietetic students. However, research thus far has only considered supervisors from one Australian university (Deakin). To build on the PRiDE research, and better understand the NZ context, the current study sought to specifically engage with workplace supervisors involved in the Massey University MSc (Nutrition and Dietetics) programme. While this research was run separately to the PRiDE study, its methodology drew on the one used by the PRiDE research team and findings will be shared with the PRiDE team.

1.3.2 Aim of the research

The aim of this research study was to explore workplace supervisors' perceptions of student mental health and wellbeing during their WIL programme and their role in supporting students in this context.

Research questions:

1. What are workplace supervisors' perceptions of:
 - a. their mental health and wellbeing during their own WIL experiences

- b. student mental health and wellbeing during their WIL experiences
 - c. the impacts of the WIL experience on student mental health and wellbeing?
 - d. their role in supporting student mental health and wellbeing?
2. What are workplace supervisors' knowledge and/or experiences of:
- a. training to support WIL student mental health and wellbeing?
 - b. approaches used to support WIL student health and wellbeing?

1.3.3 Thesis structure

Chapter Two: Literature review is structured by firstly exploring WIL, then aspects of mental health, wellbeing and resilience, in the context of the socio-ecological model, followed by support and training opportunities.

Chapter Three: Methodology outlines why a mixed-methods approach was selected for this research design, detailing the procedures involved including quantitative analysis of online surveys and qualitative analysis of semi-structured in-depth interviews conducted with a range of workplace supervisors. Issues surrounding the transferability and ethical considerations of the study are explained.

Chapter Four: Findings examines responses from Phase 1 and 2, focussing on themes from supervisors' experiences of WIL student mental health, impacts as well as previous training and confidence in supporting students.

Chapter Five: Discussion provides a discussion of the findings in the context of analysis of the literature, comparing and contrasting the study findings with the literature.

Chapter Six: Conclusions relate the analysis of the findings to the research questions. This chapter also includes the implications of the results, furthering the understanding of aspects of student mental health, wellbeing and resilience. Strengths, limitations and conclusions are presented.

2. LITERATURE REVIEW

CHAPTER OVERVIEW

This literature review will first explore WIL, then provide the context for dietetics globally, integrating pertinent aspects of mental health, wellbeing and resilience, with a focus on the link with the socio-ecological model and ending with avenues for support and training opportunities.

2.1 WORK-INTEGRATED LEARNING (WIL)

When considering WIL outcomes as applied to each of the three stakeholders - student, university and workplace/community, it has been found that students have generally reported positive experiences during work placements (Dressler & Keeling, 2011; Fleming et al., 2009). Improved communication skills and the development of professional relationships and networks were particularly significant outcomes noted by students, as were the development of planning, organisational and problem solving skills (Doolan et al., 2019). Tertiary educators have reported that WIL gives their programs a point of difference that employers value (Martin et al., 2012), and enhances their real-world credibility as academics (Brown, 2010). Employers have reported positively on opportunities to trial potential new employees and to demonstrate corporate responsibility by 'giving back' to their industry by providing WIL placements (Atkinson, 2016; Fleming & Hickey, 2013).

However, several studies have also highlighted the potentially negative aspects of participation in WIL activities including increased psychological and financial stress, social isolation, study/life imbalance and exposure to exploitative or unlawful work practices (Grant-Smith et al., 2018; Grant-Smith & McDonald, 2016; Johnstone et al., 2016; Maidment & Crisp, 2011; Pelech et al., 2009). Drysdale et al. (2016) examined the psychological attributes of students in programmes with and without WIL in four countries (Canada, Sweden, the UK, and the USA), and their findings suggest that female students who participate in WIL may be especially vulnerable to anxiety. Undertaking WIL has been found to not only interfere with the development of a healthy sense of university belonging, by alternating on-campus academic terms with off-campus work cycles, but to also be inherently highly stressful.

Furthermore, WIL students who spend time away from their community and support system may be less able to cope with the stresses they do experience (McBeath et al., 2017). Gillett-Swan and Grant-Smith (2018) also concluded that even where institutional supports exist, such as the availability of counselling services and food banks, they are often unavailable on weekends or after hours. In addition, many students are also constrained in their willingness to access such services because of potential social stigma (Gillett-Swan & Grant-Smith, 2018). McBeath et al. (2017) argued that, as far as mental health is concerned, the WIL experience can be a double-edged sword.

At a broader level, Fleming and Hay (2021) sought to understand the risks in WIL by examining how risk was defined and perceived by those involved in WIL, from 28 disciplines, across eight New Zealand universities. Health and safety, conduct and characteristics of students, conduct of the host organization (including exploitation and physical safety of students), and reputation of the university were perceived by WIL staff as high risk. Other risks identified included intellectual property, contracts or agreements, and the educational quality of the WIL experience. The authors identified that these issues expose the university to operational and legal risks. Exploring these further, with a focus on the students as a priority stakeholder, they found that significant risks for students undertaking WIL related to the readiness and suitability of the student, the learning environment, and student safety (Fleming & Hay, 2021, 2022).

2.1.1 WIL and dietetics training globally

Dietetics degrees, like those of most healthcare professions, include a WIL component in hospitals as well as other health agencies. In 2004, the International Confederation of Dietetic Associations (ICDA) adopted an aspirational standard for the education of a dietitian-nutritionist. The standard quickly became the norm and was refreshed in 2016. The ICDA's minimum level of education standard for a dietitian-nutritionist is a Bachelor's degree in nutrition and dietetics and a period of supervised professional practice of at least 500 hours, which together meet international competency standards for dietitians-nutritionists. In four countries: Finland, Iceland, NZ and Norway, a Master's degree was reported as the entry level standard for Clinical Dietitians (International Confederation of Dietetic Associations, 2016).

Forty-two countries were included in the 2016 ICDA report, of which 92% of those countries reported that supervised dietetic practice was a compulsory part of the dietetic programme, with the length of the training interpreted as equivalent to approximately 500 hours across 12.5 weeks and based on 40 hours per week. In Australia, graduates of accredited dietetics education programmes must at a minimum demonstrate competence through a four-year Bachelor-level degree, to include 100 days (approximately 800 hours) of practice placement experience (Dietitians Association of Australia, 2022).

A survey of 19 European countries identified public hospitals as the most predominant location for both clinical and catering (foodservice) placements. In addition, the public hospital placement was the longest period students spent in any of the placements (de Looy et al., 2015). Practice educators, also referred to as clinical supervisors, clinical educators or preceptors, have an important role in supporting WIL and the assessment of student performance in the workplace internationally (de Looy et al., 2010).

The context of WIL and dietetics training globally is in alignment with dietetics WIL programmes in NZ, where students must complete a minimum of 800 hours' of dietetic practice placement, of which 640 hours is workplace training, with public hospitals the most utilised WIL placement setting and the main place of work for NZ Registered Dietitians (Dietitians Board of New Zealand, 2018, 2021).

2.2 MENTAL HEALTH/WELLBEING

2.2.1 *Mental health and mental illness*

The World Health Organization defines mental health as “a state of wellbeing in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”. (WHO, 2004, p. 10). In 2015, a group of European psychiatrists challenged this definition arguing that championing positive emotions and excellence in functioning, risks potential misunderstandings and the exclusion of large groups in society (Galderisi et al., 2015). Similarly, in 2015, Manwell et al. set out to start a global, interdisciplinary, interactive, and inclusive series of dialogues leading to a consensus definition of mental health. This initiative was stimulated and informed by a debate about the need to redefine the term health –

quoting Huber et al. (2011) who emphasised that health should encompass an individual's "ability to adapt and to self-manage" in response to challenges, rather than achieving "a state of complete wellbeing", as stated in the WHO definition (Huber et al., 2011; Manwell et al., 2015).

In contrast, mental illness severely and negatively impacts how we function in our lives. Mental illnesses involve disturbances in emotion, thinking or behaviour, or a combination of these aspects. Mental illnesses are associated with distress, problems functioning at school or at work, and difficulties engaging in healthy social relationships and activities (American Psychiatric Association, 2013; Public Health Agency of Canada, 2006). Mental illnesses take many forms, including mood disorders, schizophrenia, anxiety disorders, personality disorders, eating disorders and addictions such as substance dependence and gambling (American Psychiatric Association, 2013; Ministry of Health - Manatū Hauora, 2021; Public Health Agency of Canada, 2006). The symptoms of mental illness vary from mild to severe, depending on the type of mental illness, the individual, the family and the socioeconomic environment (Public Health Agency of Canada, 2006). When mild, symptoms only interfere in limited ways with daily life, such as some phobias (abnormal fears) while other mental health conditions are so severe that a person may need care in a hospital (American Psychiatric Association, 2022).

Conventional notions of mental health and mental illness tend to describe their relationship on a single continuum, with mental illness represented at one end of the continuum while mental health is at the other end (Public Health Agency of Canada, 2006). However, this is at odds with the widely agreed notion that mental health is more than the absence of mental illness. Keyes' two-continua model (Figure 2.1) captures the complexity of variation in mental health and mental illness. It shows how they intersect and can co-exist in individuals and populations. People with mental illness can experience good mental health that allows them to be resilient and to flourish. Conversely, people without a mental illness can experience poor mental health and struggle to cope (Keyes, 2010; National Collaborating Centre for Determinants of Health, 2017).

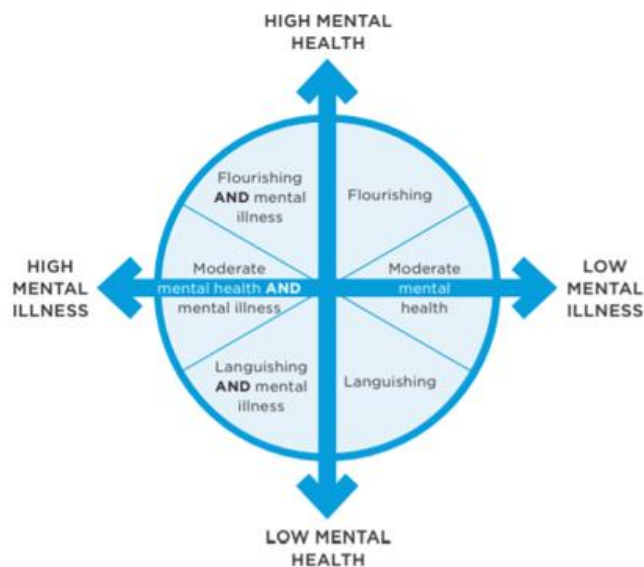


Figure 2.1 Two-continua model of mental health (Keyes, 2010)

The focus for this thesis is on low mental health and subsequent struggles to cope leading to mental health distress. Anecdotally, low mental health and resulting distress appear to be increasing in prevalence within the dietetics student cohort at Massey University, often coming to the fore during WIL experiences.

2.2.2 Mental health and wellbeing: The socio-ecological model

The socio-ecological model (SEM, Figure 5) is widely used globally, in both public health research and practice to consider approaches to understand and subsequently change physical and social environments rather than individual health behaviours only. The model recognises individuals as embedded within larger social systems and describes the interactive characteristics of individuals and environments that underlie health outcomes (Golden & Earp, 2012; Sallis et al., 2008). The SEM was introduced as a conceptual model for understanding human development by Urie Bronfenbrenner in the 1970s and later formalised as a theory, illustrated by nesting circles that place the individual in the centre surrounded by various systems (Bronfenbrenner, 1977; Bronfenbrenner, 1989). Building on the work of Bronfenbrenner, McLeroy et al. (1988) offered five levels of influence on health: intrapersonal, interpersonal, institutional, community, and public policy (McLeroy et al., 1988). The multiple levels of influence are organised hierarchically in the model, with relationships (e.g., with parents) most proximal to individuals, followed by community/ organisations (e.g., schools) and then society more broadly, which includes health policy (Harper et al., 2018). While

McLeroy et al. (1988) did not provide a visual representation of their model, several authors have developed illustrative models based on their work. Figure 2.2 shows a simple visual illustration of the SEM, highlighting the five levels of influence from McLeroy et al. (1988), as adapted by Froehlich Chow and Humbert (2014).

Figure 2.2 Socio-ecological model (adapted by Froehlich Chow and Humbert (2014))

The socio-ecological framework challenges traditional individualistic approaches, which place the onus of mental wellbeing on the individual and typically fail to consider wider determinants of mental wellbeing (Oswald, 2020). Kousoulis and Goldie (2021) further advocate for mental health to be considered a dynamic state, whereby individual psychosocial development is influenced by multiple layers of intersecting social and environmental factors, visualising indicative risk and protective factors across various stages of the course of life, as illustrated in Figure 2.3.



Figure 2.3 Risk and protective factors (Kousoulis & Goldie, 2021)

A general acceptance of, and enthusiasm for, ecological models as applied to health behaviour is reflected in authoritative documents that guide public health programs nationally and internationally (Sallis et al., 2008). Leading health organisations worldwide e.g., the World Health Organization, the Centres for Disease Control and Prevention, and the Institute of Medicine have adapted and recommend the SEM for various health promotion endeavours and program design (Golden & Earp, 2012; Kilanowski, 2017; Sallis et al., 2008). With the initial model acknowledging the many contributors to human development, subsequent revisions and adoptions use the SEM to represent multilevel approaches to areas such as in public health promotion, violence prevention, healthy college campuses, geriatric preventive health, and colorectal cancer prevention to name a few, subsequently guiding implementation of interventions addressing the wider determinants (Kilanowski, 2017).

It is therefore of no surprise that the SEM is also being adopted in mental health research and practice. Kousoulis and Goldie (2021) deem that a socio-ecological approach has much to offer within a mental health context where there can be a tendency to focus attention on the individual in isolation from the social and ecological conditions in which they exist. This view is shared by other authors who describe the interconnected roles of social and environmental determinants of mental health (Antonis & Isabella, 2021; Biglan et al., 2012; Kousoulis & Goldie, 2021; Lisnyj et al., 2021; Usher & Curran, 2019). In addition, the SEM helps to shift the mental health narrative from one focused on illness to mental wellbeing, or flourishing (Keyes, 2013), by guiding the consideration of a range of strategies available to promote healthy development, and mental well-being (Michaels et al., 2022). Kousoulis and Goldie (2021) further advocate for mental health to be considered a dynamic state, whereby individual psychosocial development is influenced by multiple layers of intersecting social and environmental factors, visualising indicative risk e.g., isolation, poverty, discrimination, and protective factors e.g., social networks, savings, nurturing environment, emotional literacy etc. across various stages of the course of life.

In recent years, a SEM specific to Mental Health and Wellbeing (Figure 1.3) was developed by Michaels et al. (2022) to visually illustrate the individual, family, organisation, community, and societal factors that influence mental health and wellbeing.

While they consider this mental health and wellbeing ecological model to be in its infancy stage, and a work in progress, the model and intentions behind its development are well aligned to perspectives described by the other authors mentioned in the above paragraph, and the research focus of this current study. The context that the SEM provides helps to consider the range of strategies available to promote healthy development, and mental wellbeing. In addition, a focus on mental health promotion acknowledges the presence of disorders but recognises the importance of supporting healthy mental functioning for all (Michaels et al., 2022).

Lisnyj et al. (2021) found the SEM useful in categorising their study findings when exploring factors affecting Canadian post-secondary students' stress and academic success, demonstrating the complex interplay of demographic, psychological, emotional, social, physical, and academic factors impacting students' academic stress. Their participants noted a multitude of factors at each level of the SEM but identified a higher concentration of factors at the first three SEM levels (i.e., individual, interpersonal, and institutional). However, the results suggest a trickle-down effect, where some factors at higher levels (i.e., community and public policy) influence other factors at the lower levels of this model. For instance, changes to the provincial financial assistance program at the public policy level, coupled with difficulties in completing scholarship applications at the institutional level, place financial pressures on many students to work part time while completing their studies, thereby introducing competing interests that reduce students' time at the individual level, which can all collectively increase their stress and decrease their academic success (Lisnyj et al., 2021).

2.3.3 *Mental health and university students*

Student mental health has become a significant and growing concern on university campuses globally (Deasy et al., 2014; Hernández-Torrano et al., 2020; Limone & Toto, 2022; Lipson et al., 2019). An estimated one-in-three students in the United States meets criteria for a clinically significant mental health problem, including significant anxiety, depression or suicidality (Eisenberg et al., 2013; Lipson et al., 2019). As compared to the general population, university students in Australia have been found to be at higher risk of psychological distress (Stallman, 2010).

Increased study, financial, living and social pressures were identified as contributing factors, in accordance with findings from Deasy et al. (2014) who studied students in Ireland. In addition, many young people do not seek help or assistance in managing their mental health issues. Instead, they are more likely to employ maladaptive responses to stress with escape avoidance behaviours including substance use (alcohol, tobacco, cannabis) and unhealthy diets (Deasy et al., 2014).

A recent study by Porru et al. (2021), confirmed the high prevalence of psychological distress among university students, with 78.5% of the 4,760 students experiencing psychological distress ranging from mild to severe. The authors also noted gender differences with female students (39.1%) more likely to report severe psychological distress compared to male students (26.8%). Psychological distress as a whole was also higher among female students (Porru et al., 2021). A rise in the prevalence of mental health problems among university students, irrespective of gender, has also been noted by other authors (Benton et al., 2003; Duffy et al., 2019; Lisnyj et al., 2021). Further, Lisnyj et al. (2021) identified that their participants had a stronger focus on identifying adverse factors, suggesting that stress is predominantly perceived negatively among undergraduate students, also noting an inverse relationship between stress and academic success.

When considering healthcare professions more specifically, meta-analyses estimated a high prevalence of anxiety and depressive symptoms among medical students worldwide (Quek et al., 2019; Rotenstein et al., 2016). The authors estimated the prevalence of depression or depressive symptoms among medical students at 27.2% and that of suicidal ideation at 11.1%, based on a review of 67 cross-sectional studies and 16 longitudinal studies from 43 countries (Rotenstein et al., 2016). More recently, Quek et al. (2019) analysed data from 69 studies and found the prevalence of anxiety to be 33.8% among medical students globally, which is substantially higher than the general population (prevalence of 3 to 25% as screened by different tools i.e., DASS-21, GAD-7, BAI-21 and HADS-A). A similar trend was found for nursing students in China, where prevalence rates of depression, anxiety and stress symptoms were 28.7%, 41.7% and 20.2% respectively; with higher rates as compared to a reference population of Chinese college students of all majors, e.g., mean difference (95%CI) of 3.66, 1.34 and 4.30 respectively (Zeng et al., 2019).

There is limited data on student mental health and wellbeing among university students in NZ. Stress, anxiety, and poor psychological wellbeing (20.0%, 66.7% and 44.2% respectively) were identified in a sample of first year university students studying medical sciences at the University of Auckland (Slykerman & Mitchell, 2021). The authors found that female students reported higher levels of stress, but not anxiety or poor wellbeing than male students and suggested that female students may either experience more stress than male students or are more readily able to identify feelings of stress (Slykerman & Mitchell, 2021). In their study of nursing students across NZ, Minton et al. (2018) identified 75% experienced anxiety, 70% felt inadequate and 45.2% felt depressed; this was specifically in the context of facing bullying/harassment on clinical placements. In the context of WIL in particular, many authors have described WIL, especially practical placements in hospitals, as often synonymous with increased stress and anxiety in health professional students (Alzayyat & Al-Gamal, 2014; Blomberg et al., 2014; Dart et al., 2022; Greenlees et al., 2021; Hughes & Byrom, 2019; Ross et al., 2022; Rotenstein et al., 2016).

2.3.4 Mental health and dietetics training

To date, the mental health of dietetics students has not been widely researched. One study in the USA measured anxiety, stress, depression, and specific stressors in a cohort of 611 Didactic Program in Dietetics (DPD) students. A total of 35 US states and territories and 69 DPDs were represented, with the 611 students accounting for a response rate of 13%. This number was based on the sum of the enrolment listed on the Accreditation Council for Education in Nutrition and Dietetics (ACEND) website for any program that had at least 1 response. Responses from each DPD program ranged from 1 to 31 people, with a mean of 9.9 per program represented. Participants were predominantly single (84.3%), female (91.8%), and between the ages of 18 and 24 (74.9%) (Patten & Vaterlaus, 2021). This demographic reflects the typical dietetic student cohorts at Massey University. Since its inception in 2012, Massey University's Master in Dietetics programme has trained 149 students, most of whom are female (92%) and many between the ages of 20-24. This finding also aligns with the 2022 NZ dietetic workforce demographics, with 94% of practising dietitians identifying as female and 83% of newly registered dietitians aged between 20-29 (Dietitians Board of New Zealand, 2022).

Patten and Vaterlaus (2021) found that 30% of dietetics students in the USA reported symptoms of depression, 40% reported anxiety and 27% reported stress as further detailed according to severity of symptoms in Figure 2.4.

Figure 2.4 Mental health of dietetics students (Patten & Vaterlaus, 2021)

The most significant stressors identified were postgraduation plans (including internships), managing time, dietetics courses, finances, and self-imposed expectations. Many of the stressors were linked to dietetic internships, for example, being a strong enough candidate to qualify for an internship, as well as funding it if successful (Patten & Vaterlaus, 2021). It is worth noting that dietetics training in NZ does not require enrolled students to compete for internships/placements, but gaining a seat in the training programme is very competitive. Placements are integrated within the course of study and arranged by the university. Students do however need to shoulder travel costs, including additional charges and accommodation when attending a provincial site. This financial impact can be a significant source of stress and anxiety for some students. Other stressors identified by Patten and Vaterlaus (2021) are however very relevant to the NZ setting, namely students' personal physical and mental health challenges (e.g., anxiety, panic disorder, and disease relapse such as Crohn's disease or eating disorders), as well as coping with family and relational concerns like crises, family members dying, extended health issues, childcare issues, parenting, roommate relationships, and eldercare responsibilities.

More recently, perspectives from the UK were gained from a retrospective student survey, which sought to understand how student mental health had been affected during their placements (Longyear, 2022). Dietetic students (n=58) across two cohorts of undergraduate dietetic students were surveyed and similarly to the study by Patten and Vaterlaus (2021), student experiences were gathered through self-reporting. Patten and Vaterlaus (2021) administered the DASS- 21 tool, a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. A specific survey tool was not mentioned by Longyear (2022), however, findings were similar in identifying self-reports of anxiety and depression among the students surveyed. While rates of anxiety were similar across both countries (approximately 40%), the rate of depression reported by the students in the UK were approximately half of that reported in the US (30% as compared 12%). Nevertheless, when considering the findings as a whole, more than half of the students surveyed in the UK (53%) reported experiencing worse mental health as a result of placement. In addition, 69 % of all students surveyed reported either (or in combination), a decline in the quality of their sleep, diet quality or physical health as a direct result of their placement (see Figure 2.5).

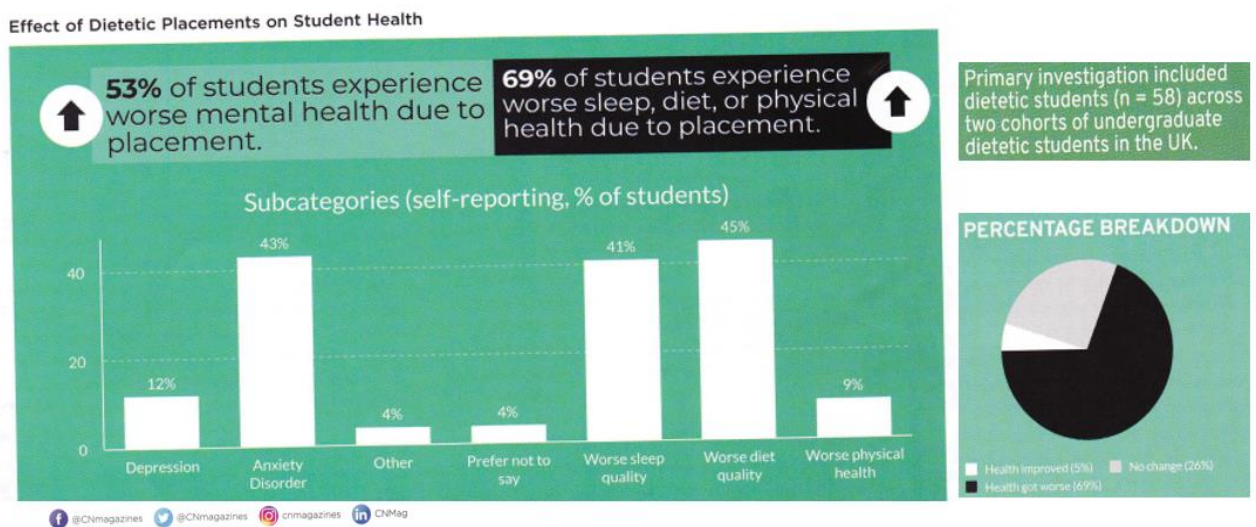


Figure 2.5 Mental health of dietetics students during placement (Longyear, 2022)

There have been no similar studies published thus far to offer a NZ or Australian perspective. However, as already indicated, a few Australian researchers have mentioned from anecdotal or secondary study findings, that WIL, particularly in hospitals, is particularly stressful for dietetics students, thereby impairing their performance (Evans & Margerison, 2015; Markwell et al., 2021; Ross et al., 2022).

Importantly, in alignment with the Mental Health and Wellbeing: Socio-Ecological Model (Michaels et al., 2022), the literature also identifies different factors that can influence resilience at individual, environmental, and organizational levels (Brewer et al., 2019; Huey & Palaganas, 2020). These factors are further illustrated in Figure 2.7.

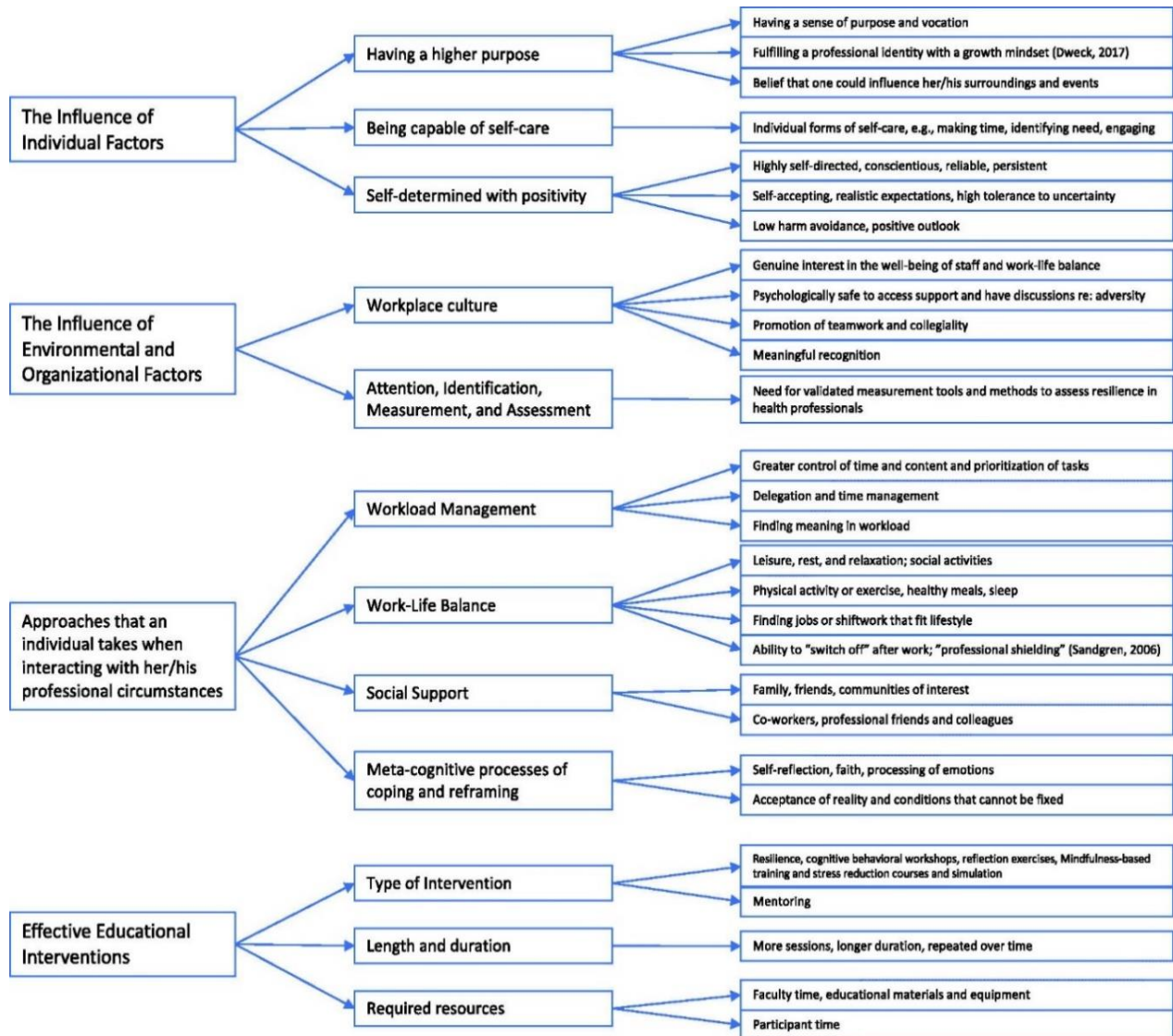


Figure 2.7 Identified themes of factors affecting resilience (Huey & Palaganas, 2020)

The definition of resilience chosen for this thesis is the one that Brewer et al. (2019) proposed after undertaking a scoping review to gain an understanding of resilience within the broad higher education context. They described resilience as “a dynamic process of positive adaptation in the face of adversity or challenge. This process involves the capacity to negotiate for, and draw upon, psychological, social, cultural and environmental resources” (Brewer et al., 2019). Figure 2.8 shows this conceptualisation of resilience.

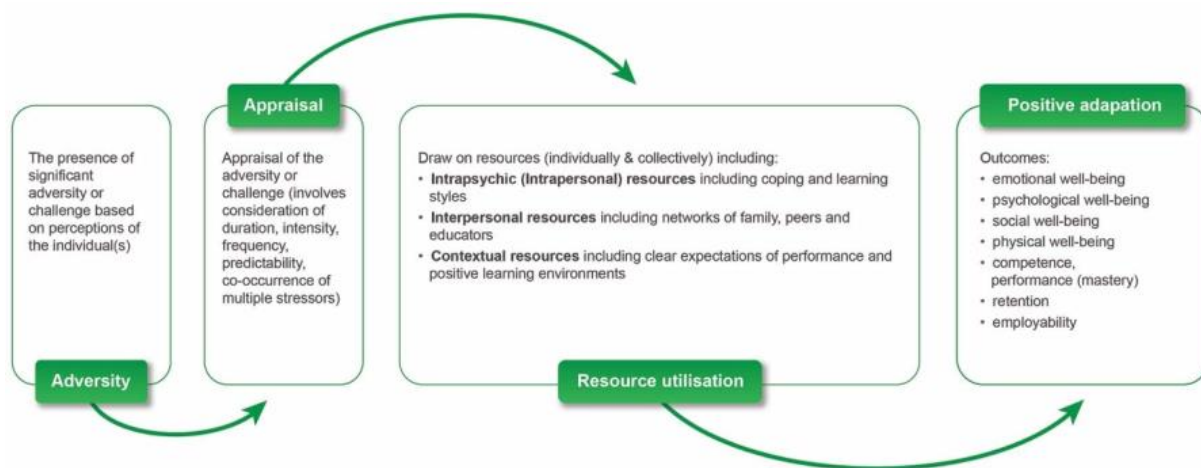


Figure 2.8 The conceptualisation of resilience (Brewer, 2018)

It is worth noting that several authors have found resilience to be positively influenced by supportive relationships and a sense of belonging (Brooks & Goldstein, 2008; Huey & Palaganas, 2020; Jackson et al., 2007; Walsh et al., 2020). Similarly, Levett-Jones and Lathlean (2008) discovered that stressful experiences and feelings of anxiety or apprehension within the nursing students they surveyed, as they traversed different placements, were often derived from a diminished sense of belonging. In accordance, McBeath et al. (2017) concluded that a strong sense of belonging was critical for student mental health and wellbeing, strengthening their confidence in school-to-work transitions. Furthermore, Rowe et al. (2021) determined that workplace supervisors and peers are more important in facilitating or inhibiting the development of a sense of belonging, at least in the eyes of students. Students feel more empowered to ask questions, share their ideas and maximise learning opportunities, when they feel they are valued and have a strong sense of belonging to the workplace (Rowe et al., 2021). The emphasis on the sense of belonging as related to mental health, wellbeing and resilience is therefore not surprising, nor is it a recent notion given well known theories such as Maslow’s hierarchy of needs (Figure 2.9), which positions belonging third in five levels of specific human needs that allow for an individual to feel fulfilled and motivated (Maslow, 1943).



Figure 2.9 Maslow’s hierarchy of needs (Maslow, 1943) image credit: (Sketchplanations)

2.3.2 Mental health and resilience training

Several authors have argued that students should not be expected to inherently display resilience. Instead, resilience is a skill that can be learned and developed, and therefore, importantly, resilience should be taught (Brewer et al., 2019; Brooks & Goldstein, 2008; Cassidy, 2015; Low et al., 2019; Mate & Ryan, 2015; McAllister & McKinnon, 2009; Ross et al., 2022). This situation, however, requires educators to be capable of fostering resilience in students, which first relies on particular mindset characteristics (Table 2.1).

Table 2.1 Mindset characteristics for fostering resilience (Brooks & Goldstein, 2008)

Fostering resilience: Mindset characteristics of effective educators:
<ul style="list-style-type: none"> • Understand the lifelong impact they have on students, including instilling a sense of hope and resilience; • Believe that the learning that occurs in the classroom and the behaviour exhibited by students has as much, if not more, to do with the influence of teachers than what students might bring into the situation; • Believe that all students yearn to be successful, and if a student is not learning, educators must ask how they can adapt their teaching style and instructional material to meet student needs; • Believe that attending to the social-emotional needs of students is not an “extra curriculum” that draws time away from teaching academic subjects; • Recognize that if educators are to effectively relate to students, they must be empathic, always attempting to perceive the world through the eyes of the student; • Appreciate that the foundation for successful learning and a safe and secure classroom climate is the relationship that teachers forge with students; • Recognize that students will be more motivated to learn when they feel a sense of ownership for their own education;

- Understand that one of the main functions of an educator is to be a disciplinarian in the true sense of the word, namely, to perceive discipline as a teaching process rather than as a process of intimidation and humiliation;
- Realize that one of the greatest obstacles to learning is the fear of making mistakes and feeling embarrassed or humiliated;
- Subscribe to a strength-based model, which includes identifying and reinforcing each student's "islands of competence";
- Recognize that constructive relationships with parents facilitate the learning process for students; and
- Develop and maintain positive, respectful relationships with colleagues.

In addition, it is important for educators and supervisors to have the skills required to support the mental health of students and help instil resilience, if required. As Lisnyj et al. (2021) highlighted, promoting mental health and academic success is a shared responsibility among all post-secondary community members. These include administration governing comprehensive policies and procedures, staff offering evidence-informed programs and services that optimise students' needs, faculty members being equipped with appropriate resources to assist students, and students themselves being able to communicate when experiencing hardship (Lisnyj et al., 2021). Further, Grant-Smith et al. (2017) advocated for institutional, and community supports to strengthen individual strategies, as illustrated in Figure 2.10. Both WIL administrators and student participants in their research proposed that universities and registration/accreditation bodies need to consider alternatives to unpaid WIL placements or structural changes to placement requirements which limit extended unpaid placements. Combined, peer, family, community and university support make an important contribution to a successful WIL experience, however, available institutional support and eligibility requirements need to be better communicated to students. The authors also called for better training, support and vetting of potential WIL workplaces and supervisors and highlighted that more supportive supervisory relationships are required within the WIL workplace to support WIL participant wellbeing (Grant-Smith et al., 2017).



Figure 2.10 WIL wellbeing factors (Grant-Smith et al., 2017)

Emerging research around resilience training currently appears to mostly consider student-focussed curriculum-based interventions and pedagogical approaches from academic staff, but many of these could be transferable to workplace settings and facilitated by WIL supervisors. In conducting an integrated review of the literature, to determine pedagogical approaches to promote resilience in student nurses, Walsh et al. (2020) identified multi-factorial designs and common approaches that facilitate resilience building, as summarised in Figure 2.11, which also align with findings from (Low et al., 2019).

Figure 2.11 Pedagogical approaches to promote resilient behaviour (Walsh et al., 2020)

In designing and evaluating a resilience intervention for business students, Lohner and Aprea (2021) trialled a *resilience journal* intervention drawing on expressive writing that focused on reflection on daily challenges. First implementation results confirmed the potential value of using a *resilience journal* to support resilience building (Lohner & Aprea, 2021). Within dietetics, emerging research indicates positive outcomes of implementing resilience and wellbeing interventions for student dietitians in preparation for WIL. Ross et al. (2022) found that a low-intensity psychoeducation intervention focused on building resilience in student dietitians was successful in assisting them to cope with the acknowledged stressors of the professional placement. The program was founded on theoretical frameworks and learning models of ecological and cognitive behaviour therapy (CBT) to allow students to develop coping and stress management strategies and enable them to demonstrate competence in managing their own health and wellbeing (Ross et al., 2022).

Although the present author is not aware of any studies to date that have considered training for dietetics WIL supervisors, research has been conducted in other health professions. A recent Australian study tested an online mental health training programme for physician supervisors (Gayed et al., 2021). They found that it was not only feasible, but also led to improved confidence in supervisors, enabling them to support the mental health needs of the trainees they supervised (Gayed et al., 2021). It was also encouraging to note that workplace interventions aimed at supervisors and managers were found to be effective in inducing supportive behaviours. Even a brief active listening skills training package was associated with significant improvements in healthcare manager's confidence in recognising, speaking with and supporting health care workers with suspected mental health struggles (Akhanemhe et al., 2021; van Hees et al., 2022)

Although still an emerging area of research, the benefits of delivering Mental Health First Aid (MHFA) to university students, including healthcare students, with promising results identified have recently been explored (Dzemaili et al., 2023; Liang Md et al., 2023; Lo et al., 2018; Wadsworth et al., 2023). Originally developed in Australia in 2000 by Kitchener and Jorm following an identified need for improved mental health literacy, MHFA has been adopted in several countries around the world e.g. Canada, England, Finland, Hong Kong, Scotland and Singapore (Kitchener & Jorm, 2002, 2008). It is aimed at anyone and everyone, emphasising that mental health problems should be responded to in the same way as physical health problems and that members of the public can play a useful initial role (Kitchener & Jorm, 2008). On the MHFA Australia website, several versions of the course are available to meet the needs of different ages and population groups e.g., youth, teens, older people, Aboriginal and Torres Strait Islander adults and young people (Mental Health First Aid Australia, 2023a). Specific courses are also available for Tertiary Students and Staff as well as for Workplaces (Mental Health First Aid Australia, 2023a, 2023b). However, the focus of research conducted thus far has been on the standard MHFA delivery rather than the different versions. Integrated in the MHFA courses is the Mental Health Continuum (MHC) model, adapted from the US Marine Corps by the Canadian Armed Forces as part of their Road to Mental Readiness (R2MR) program (Bailey, 2015).

The MHC is designed to teach individuals to recognise symptoms of stress and distress in themselves and others, also demonstrating that an individual's mental health status is not based on a set point but ranges on a continuum (D'Agata et al., 2019). The continuum goes from healthy, adaptive coping (green), through mild and reversible distress or functional impairment (yellow), to more severe, persistent injury or impairment (orange), through to clinical illnesses and disorders requiring more concentrated medical care (red) (D'Agata et al., 2019). In their study of university students across three Canadian universities, Chen et al. (2020) found the MHC model to be a useful tool in helping college students reflect on and enhance their mental health. Figure 2.12 depicts the MHC, as adapted by the NZ Defence Force (NZ Defence Force, 2018). The tool is utilised as a screening tool on self and others, with accompanying guidance across the continuum.

MENTAL HEALTH CONTINUUM MODEL			
HEALTHY	REACTING	INJURED	ILL
Normal mood fluctuations; Calm and takes things in stride	Irritable/impatient; Nervous; Sadness/overwhelmed	Anger; Anxiety; Pervasively sad/hopeless	Angry outbursts/aggression; Excessive anxiety/panic attacks; Depressed/suicidal thoughts
Good sense of humour; Performing well; In control mentally	Displaced sarcasm; Procrastination; Forgetfulness	Negative attitude; Poor performance or workaholic; Poor concentration/decisions	Can't perform duties/control behaviour or concentrate; Engaging in behaviours which appear to be markedly out of character
Normal sleep patterns; Few sleep difficulties	Trouble sleeping; Intrusive thoughts; Nightmares	Restless disturbed sleep; Recurrent images/nightmares	Can't fall asleep or stay asleep; Sleeping too much or too little
Physically well; Good energy level	Muscle tension/headaches; Low energy	Increased aches and pains; Increased fatigue	Physical illnesses; Constant fatigue; Changes to appetite (increased or decreased)
Physically and socially active	Decreased activity/socialising	Avoidance; Withdrawal	Not going out or answering phone
No/limited drug and alcohol use/gambling	Regular but controlled drug and alcohol use/gambling	Increased drug and alcohol use/ gambling – hard to control	Frequent drug and alcohol or gambling use – inability to control with severe consequences; Out of character decision making e.g. spending
Maintain positive attitude; Focus on task in hand; Break problems into manageable tasks; Nurture support systems	Recognise limits, take breaks; Get adequate rest, food, exercise and physical activity; Identify and resolve problems early	Make self care a priority; Maintain social contact, don't withdraw; Talk to someone	Follow care recommendations; Know resources available and how to access them

Self-care, Social support:

Professional care and support:

Figure 2.12 Mental health continuum model (NZ Defence Force, 2018)

2.4 CHAPTER SUMMARY

While there is a paucity of literature specific to dietetic students' mental health, this literature review presents significant evidence that university students, especially those in healthcare professions, carry a high burden of stress and mental health struggles (Deasy et al., 2014; Lipson et al., 2019; Porru et al., 2021; Rotenstein et al., 2016). WIL was described as a double-edged sword (McBeath et al., 2017); well-known benefits such as improved communication skills, development of planning, organisational and problem-solving skills, building professional relationships and ultimately preparing students for the workplace (Doolan et al., 2019). Drawbacks, particularly in hospital settings, were that WIL experiences can generate much stress, negatively affecting some students' mental health and wellbeing, and subsequently their performance (Grant-Smith et al., 2018; Hughes & Byrom, 2019). Various factors were found to influence student mental health and wellbeing across the different levels of the SEM, e.g., socio-demographic factors including age, gender, living arrangements, and financial security as well as general health status, social supports, university and workplace culture, and policies and procedures (Lisnyj et al., 2021). Therefore, interventions that interweave and intersect across all five SEM levels have been advocated to best support student mental health (Brewer et al., 2019; Grant-Smith et al., 2017; Lisnyj et al., 2021). The importance of resilience as an essential graduate capability was highlighted and different factors influencing resilience e.g., having a higher purpose, being self-determined, self-care, workload management, social supports and resilience building e.g., workplace culture, pedagogical approaches, resilience workshops were also identified (Huey & Palaganas, 2020; Walsh et al., 2020). The important role that educators have in supporting resilience building was raised. However, it was acknowledged that not all educators possess either the mindset or skills to facilitate the development of resilience (Brooks & Goldstein, 2008). The importance of training, in the context of mental health, wellbeing and resilience was emphasised, with most research thus far focusing on student skills and perspectives (Low et al., 2019; Ross et al., 2022). Gaps in the research have been identified, particularly in relation to dietetic students' mental health and wellbeing, as well as the importance of supervisor-focussed skills and perspectives. While especially relevant in the NZ context, where there are no published studies to date about dietetic students' mental health in any setting, or the role of supervisors (WIL and/or academic) in this context, similar gaps were noted in the research internationally.

3. METHODOLOGY

CHAPTER OVERVIEW

This chapter outlines the theoretical research framework and design of this study. The first section provides an overview of the study's theoretical lens in relation to mixed methods methodology and the choice of instruments, including rationale for use. The quantitative and qualitative study methods are then detailed.

3.1 RESEARCH FRAMEWORK

Social constructivism was the theoretical construct that was used to guide the study design. This social learning theory posits that learning takes place primarily in social and cultural settings, rather than solely within the individual (Schreiber & Valle, 2013). Social constructivism suggests that successful teaching and learning is heavily dependent on interpersonal interaction and discussion (Prawat, 1992). It stresses several positions on teaching and learning that can be applied to the WIL context, especially that students are capable of generating their own knowledge and skills as long as they are provided with meaningful experiences and guidance from an instructor. Further, that the instructor's role is to monitor, coach, guide, advise, and facilitate learning while encouraging students to take ownership of the learning process and making provisions for students to have authentic learning experiences that mimic real world problems and environments (Schreiber & Valle, 2013). In considering the research process in particular, as Boyland (2019) described, constructivism offers a paradigm of investigative thinking whereby the researcher journeys with participants into a space of interpreted reality. When the locus of inquiry is to profile distinctive patterns of constructing meaning within a specifically defined social context.

An integrative methodology is situated within the world-view of pragmatism - a leading foundation for mixed method research - where the focus is on the problem in its social and historical context rather than on the method, and multiple relevant forms of data collection are used to answer the research question(s) (Evans et al., 2011). Mixed methods research is considered the third research paradigm in addition to quantitative and qualitative research, offering a more complete perspective in exploring particular phenomena and enabling

research questions to be answered uniquely (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010; Zoellner & Harris, 2017). This integration of inquiry provides a breadth and depth of knowledge, enabling additional coverage of multiple aspects of a complex phenomenon that would be difficult to achieve through either method in isolation (Morgan, 2014). Historically, nutrition and dietetics research was dominated by quantitative approaches (Fade, 2003; Harris et al., 2009), with a call for more dietitians to engage with qualitative research (Pilnick & Swift, 2010; Swift & Tischler, 2010). Mixed methods research focuses on allowing the research problem and question to dictate the research design. Further, quantitative and qualitative approaches are combined so weaknesses in one approach can be compensated by strengths in the other, and to best understand a phenomenon and ultimately solve problems (Zoellner & Harris, 2017).

3.1.1 Research design

The decision to use a mixed methods research design was to gain a comprehensive understanding of WIL supervisor perspectives around student mental health and wellbeing and their experiences of supporting students, more so than could be achieved by using either quantitative or qualitative research alone. Phase 1 (quantitative) allowed for a wider pool of respondents with participants in Phase 2 (qualitative) drawn from those in Phase 1, with the intent to use the qualitative findings to provide a more in-depth understanding of the quantitative data and as a method of validating the research (Figure 3.1).

The use of an exploratory study design aligns with the scarcity of research (Babbie, 2007; Rendle et al., 2019) in dietetics student mental health and wellbeing, and the perspectives of their WIL supervisors. The use of a survey was the preferred quantitative method to help generate a significant sample and obtain information from a geographically diverse population relatively quickly (Cameron, 2018; Ponto, 2015). The use of semi-structured interviews for the qualitative phase merged specified survey questions with the flexibility to explore responses and interesting perceptions in depth (Coll & Chapman, 2000; Wiersma & Jurs, 2009).

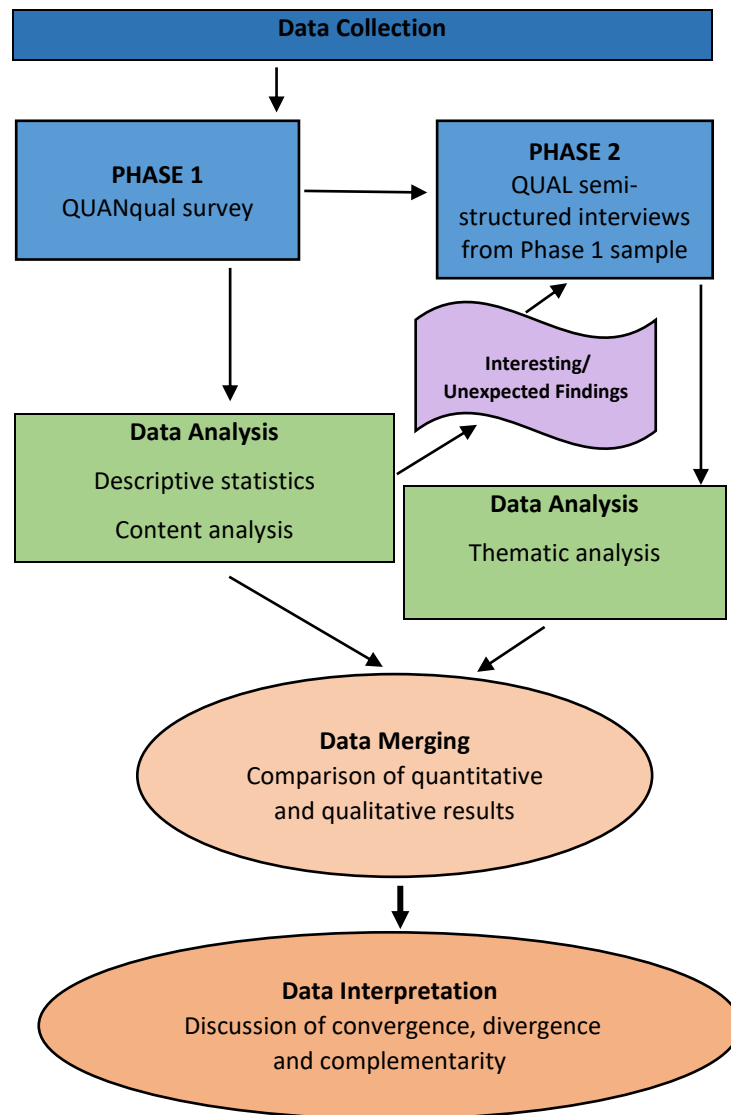


Figure 3.1 Flow diagram depicting mixed methods research design.

3.1.2 Data analysis

For the quantitative data analysis IBM SPSS Statistics (Version 27) software was chosen, as it is considered one of the most important, influential statistical and widely available tools for quantitative data analysis (Bryman & Cramer, 2002; Humble, 2020). The qualitative data were analysed using data reduction, data display, conclusion drawing, and verification; the principles outlined by Miles and Huberman (1994). Informed by Braun and Clarke (2006), thematic content analysis involving generating initial codes followed by creating and reviewing themes, was used for the transcribed interviews.

3.1.3 Ethics

This study has been evaluated by peer review and judged to be low risk, as confirmed by The Massey University Research Ethics Secretariat. The Ethics Notification Number: 4000024388 was received on 25 May 2021 (See Appendix A). The following ethical issues were considered and addressed as part of ethics application: informed consent, privacy and confidentiality.

- Informed consent was ensured by providing all participants with an information sheet to read. Each participant provided consent prior to participation. Participants were advised that they could withdraw participation at any time.
- Privacy and confidentiality were maintained by ensuring that participant identity was not revealed and numbers were used to de-identify data during data analysis. Data was stored securely onto a password protected database.
- Student consent was not sought as the study did not directly involve students (neither current nor past). No information about individual students was accessed at any time. Neither supervisors nor students were identifiable.

3.2 PHASE 1: ONLINE QUESTIONNAIRE

3.2.1 Questionnaire development and process

The questionnaire was developed by Deakin University's PRiDE project team as part of the wider study entitled, "The impact of the placement experience on the mental health and/or wellbeing of dietetic students." While not directly part of the PRiDE research team, the author was a member of the PRiDE Working Group, which consisted of dietetic educator representatives from all the universities involved in the study. The author therefore had some familiarity with the PRiDE project methodology and researchers, obtaining consent from the lead researcher at Deakin University to adapt their questionnaire. A virtual meeting was undertaken to discuss the methodology employed and the questions included in the questionnaire. The PRiDE questionnaire, developed for supervisors, focused on their experience of student mental health distress, potential stressors, as well as previous training and confidence in supporting students. The themes addressed were:

Experience with Mental Health

- a) Awareness of mental health and wellbeing
- b) Personal or lived experience with mental health conditions
- c) Training on managing mental health conditions
- d) Confidence recognising signs of mental health conditions
- e) Confidence supporting students with mental health distress

Stressors

- a) Placement environment
- b) Interpersonal relationships of students
- c) External stressors

Dietetics and Supervisory Experience

- a) Experience as a dietitian
- b) Supervisory experience

While these themes were retained, this current study adapted the PRiDE project questionnaire, tailoring it to suit the NZ context. In guiding this adaptation, improvement focused feedback and reflections from the lead Deakin University researchers involved were first considered and incorporated. In addition, to obtain NZ specific viewpoints, and as this study is hoped to be transferable to other disciplines, consultation feedback from four other NZ educators involved in WIL and representing both dietetics and other health disciplines (Speech-language Therapy, and Sport and Physical Education) was considered and incorporated. These NZ educators were chosen as they were members of staff at Massey University who were in similar WIL coordination roles as the author for their specific discipline. The dietitian educators were chosen as they were part of the teaching team, had experience with WIL supervision, and would not be part of the recruitment pool of workplace supervisors. Appendix B contains a table which summarises the changes made to the original questionnaire.

The questionnaire used for Phase 1 of this study had a total of 17 questions and three core sections. These sections were: About Mental Health (seven questions), About Stressors (one question with eleven sub questions) and Dietetic and Supervisory Experience (seven questions). Two questions related to interest in participating in the interview phase.

The questionnaire was designed to take 10 -15 minutes to complete and was predominantly in multiple choice format. Two questions were open ended or had open ended elements. All questions have been reported. A copy of the questionnaire can be found in Appendix C.

3.2.2 Recruitment and data collection

The sample group comprised dietetic students' workplace supervisors across a range of WIL sites and involved in supervising students during WIL block placements. The questionnaire, which included both closed and open questions, was generated and administered through the Qualtrics software. An information sheet including an accompanying consent section was incorporated in the survey link (see Appendix D). A unique de-identification number to protect each participant's anonymity was provided. Incentives were not used to avoid undue inducement. This decision was made by the research team so as to encourage supervisor participation not for financial motivations but based on a desire to share their experience, and support the topic and subsequently students. An online questionnaire enabled supervisors across all WIL sites to be reached simultaneously. The questionnaire was emailed to 137 identified supervisors from the Massey University MSc (Nutrition and Dietetics) WIL programme using the WIL coordinator's contact mail lists. Four emails bounced back as the supervisors had left the organisation, therefore the questionnaire was sent to 133 supervisors. Workplace supervisors across the three dietetic practice contexts in NZ – medical nutrition therapy, food service management and public health nutrition were surveyed. Most of the supervisors surveyed were dietitians working in hospitals, reflecting the setting students spend the most time in, and which are perceived as most stressful. The questionnaire was sent to supervisors from five Te Whatu Ora Hospital Sites (previously District Health Boards): three in Auckland and two in regional centres across the North Island. In addition, supervisors from one large foodservice and catering company, and one large food and beverage company were surveyed. All supervisors who had supervised Massey University dietetics students during at least one major WIL block placement (blocks ranging from 3 to 6 weeks in duration) were included. Supervisors who had not yet started student supervision e.g., new or recent graduates were excluded, as well as supervisors from two recently established regional WIL sites as they had not previously supervised Massey University dietetics students during a major WIL block placement. The questionnaire phase of data collection ran from the 2nd to the 23rd of June 2021.

3.2.3 Data handling and analysis

The questionnaire responses were exported from Qualtrics. The Phase 1 responses comprised both quantitative and qualitative data. Quantitative data were analysed using IBM SPSS Statistics (Version 27) through descriptive statistics and including Chi-Square testing for associations. Content analysis was also applied, systematically sorting, comparing and summarising open ended responses.

3.3 PHASE 2: INTERVIEWS

3.3.1 Interview guide development and process

The interview guide developed covered the same themes as the online questionnaire, allowing for more in-depth exploration of supervisor perspectives. A new theme around cultural influences was added following its emergence in the online questionnaire findings. The present study adapted the existing PRiDE project interview guide, tailoring it to suit the NZ context. This adaptation following focused feedback and reflections from the lead Deakin University researchers. In addition, feedback was incorporated from the same four NZ educators involved in WIL and representing both dietetics and other health disciplines. Further, a full mock interview was conducted with one of those educators, by the independent researcher in the presence of the lead researcher. A recording of this mock interview was subsequently reviewed by one of the research supervisors. Reflections from all parties involved in this mock interview and the recording review were considered, which helped identify further wording changes and the inclusion of probes to better guide both interviewer and participants, as well as improve the interview flow. Appendix E contains a table summarising the changes made to the original interview questionnaire.

The interview questionnaire used for Phase 2 was designed to take approximately one hour and consisted of 13 questions across five sections. These five sections were Informed Consent (two questions), Supervisor Background and Experience (two questions), Student Mental Health (five questions including two with sub questions), Specific Feedback and Supports (three questions) and Conclusion (one question). The interview questionnaire for this study can be found in Appendix F.

3.3.2 Recruitment and data collection

Phase 1 supervisors interested in participating in the second phase of semi-structured interviews (n=27) were asked to provide their contact details at the end of the online survey. The WIL and programme coordinators subsequently selected a sample of participants from this pool to reflect a broad range of supervisors across level of experience and location. Identifiable details were removed by an independent researcher before survey data sets were accessed by the principal researcher for analysis. Interviews were conducted individually, either over the phone or using the video conferencing tool Zoom, based on the participant's preference, internet access, and to include supervisors from both Auckland and regional sites. An independent researcher, not associated with dietetics teaching, assessment or WIL supervision, arranged and conducted the interviews (n=11). The interview phase of data collection ran from the 13th September to the 25th of November 2021.

This decision was made in alignment with the PRiDE methodology, with the intention to prevent perceived conflict of interest, bias or coercion by participants and encourage their candour. This consideration was thought to be especially pertinent for this study where some supervisors would have been WIL students under the supervision of the author during their training. Furthermore it was felt that some supervisors, regardless of their training affiliation, could feel reluctant to fully disclose their awareness and confidence around WIL student mental health and wellbeing to someone closely connected with the training programme. While in-person interviews were originally planned, these could not proceed because Auckland was in an extended period of COVID-19 lockdown. Travel compensation in the form of petrol vouchers was intended for participants who elected to travel to campus for their interview. These were not implemented again due to Auckland's lockdown requirements at the time. Interviews ranged from 20 minutes to 75 minutes in duration. Interviews were recorded with the participant's consent and the audio recordings transcribed by external professional transcribers to maintain supervisor confidentiality.

3.3.3 Data handling and analysis

Interview recordings were sent directly to the transcribing service by the independent researcher, thus ensuring that the lead researcher remained blinded. Transcripts were not sent back to participants but checked by the independent researcher who undertook the interviews. The independent researcher also removed any names from the transcripts prior to providing these to the lead researcher. Thematic analysis of the transcripts was undertaken using NVivo 13 (2020, R1). Responses were coded by the author and then combined into themes, drawing on the work of Braun and Clarke (2006), and according to Miles and Huberman's (1994) principles of qualitative data analysis. This process included data reduction, data display, conclusion drawing and verification. Codes and themes were presented and discussed with the author's thesis supervisors at regular intervals throughout the analysis process as a way of cross-checking the outcomes. The data are presented as quotes linked to key themes and sub-themes.

4. RESULTS

CHAPTER OVERVIEW

This chapter examines responses from the two study phases, first providing key findings from the online questionnaire responses (Phase 1) and then focussing on interview themes (Phase 2) in exploring supervisors' experiences of WIL student mental health and wellbeing, impacts as well as previous training, and confidence in supporting students.

4.1 PHASE 1: ONLINE QUESTIONNAIRE

4.1.1 Participant demographics

Of the 133 dietetic supervisors surveyed, 80 responses (60%) were received, of which seven were excluded from full analysis. These seven responses were included when analysing responses for question 1, which was the only question that they answered. Four participants that skipped some questions, however, were still included in the final analysis (see Figure 4.1). Therefore, response rates will be specified when describing specific results.

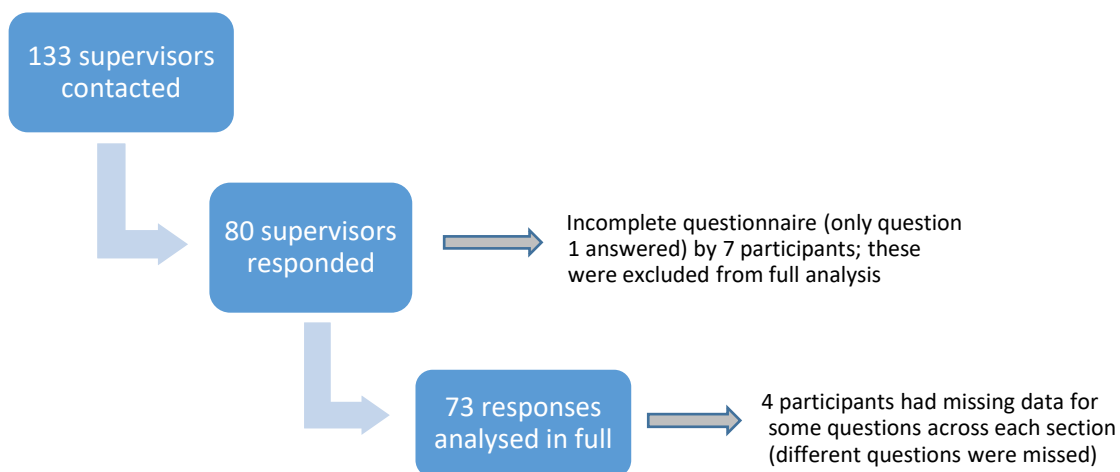


Figure 4.1 Responses received from online questionnaire

Most participants (93%) were dietitians who worked in clinical practice areas (hospital settings), had less than five years' supervisory experience (40%), and had supervised five to 10 students over the past year. Only 24 (33%) of the supervisors had more than 10 years of clinical experience, and 39 (54%) had less than 5 years (Table 4.1).

Table 4.1 Questionnaire participant demographics

	n	%
Role^a (N=72)		
Dietitian	70	97
Not a dietitian	2	3
Supervisor	52	72
Placement Coordinator	7	10
Manager/ Team Leader	13	18
Practice area^b (N=71)		
Clinical /Medical Nutrition Therapy	66	93
Food Service Management	3	4
Public Health Nutrition	2	3
Professional experience (N=70)		
< 5 years	28	40
5 – 10 years	11	16
> 10 years	31	44
Supervisory experience (N=72)		
< 5 years	39	54
5 – 10 years	9	13
>10 years	24	33
Students supervised over past year (N=69)		
< 5 students	26	38
5 – 10 students	29	42
>10 students	14	20

- a. More than one response possible
b. More than one response possible

4.1.2 About mental health: WIL supervisors' thoughts, experiences, and confidence

Few participants (n=21/80) expressed that they were very aware around mental health and wellbeing, despite most (n=60/73) reporting previous personal or lived experience with mental health conditions, which included their own or close friends/ family members. Most participants (n= 58/72) remembered their own dietetic placement or workplace internship experience as stressful.

WIL contexts

The general tone of the participant's responses about student mental health and wellbeing is reflected by the word clouds (Figure 4.2 & 4.3) illustrating the most frequent words and descriptors used by participants. 'Stressful' appeared the most, followed by 'Pressure', which did include external pressures, and tended to be mainly self-imposed or perceived e.g., making a good impression, pressure to succeed or stand out positively for future job prospects, and students' perfectionist traits. Words such as 'anxiety', 'stress', and 'overwhelmed' were also frequently used. COVID-19 came up as an important influence, but perceptions were generally negative regardless of COVID-19.

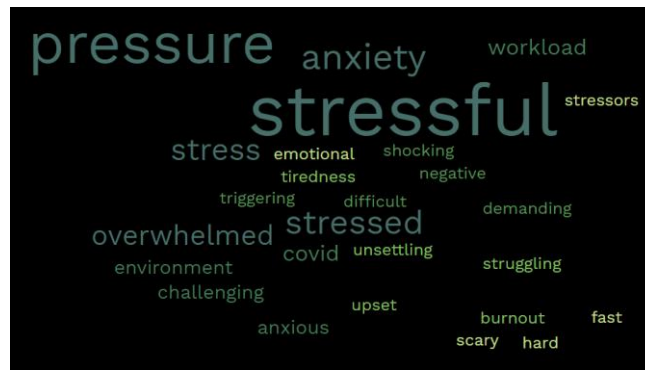


Figure 4.2 Supervisors’ negative perceptions of WIL student mental health/wellbeing (N=53)



Figure 4.3 Supervisor comments about WIL student mental health/wellbeing (N=69)

A few participants reported variability and individual differences among the students they supervised, e.g., some thrived, others floundered; with 41% (n=30/73) noting a sense of increased stress and anxiety among students. About a third of participants (n= 21/69) identified hospitals as a stressful, high-pressure environment. Words such as *‘triggering’* and *‘emotionally distressing’* were used especially in the context of working with very sick people. There was a sense that students seem to struggle to balance work-study commitments, especially a Master’s thesis (n=17/69) with placement requirements and their personal lives. Financial stress also came up, as did relocating to attend regional placements. However, it is important to highlight that the responses were not all negative (Figure 4.4). There were supervisors who reported little concern about students’ mental health during their placements, who felt that students were in good mental health, were well connected to their peers and their supervisors, with positive experiences on placement and contributions to the workplace. These comments, however, came from less than 25% of supervisors (n=16/69) and they related positive perceptions to how supported and welcomed students felt.



Figure 4.4 Supervisors’ positive perceptions of WIL student mental health/wellbeing (N=16)

Among those participants who had not noted any concerns around WIL student mental health and wellbeing, a few (n=6) raised that this may be because students rotate across several sites and supervisors, only spending a short amount of time with them, e.g., one to two days. Therefore, acknowledging that they have not given mental health much consideration as they cannot compare how a student appears at different times and notice baseline changes (n=4). Further highlighting that the short time spent does not allow enough rapport to be built so that students feel comfortable confiding in the supervisors (n=2). Another notable finding from a minority of participants (n=3), was the sense that cultural differences may significantly impact student mental health and wellbeing, especially of Indigenous students, as illustrated by the next quote.

I am particularly concerned about the cultural safety of our Indigenous and minority students and how this impacts on their mental health and wellbeing. I do not believe that enough is being done to ensure their safety when in an environment and profession which is very foreign to them.

Students from non-English speaking backgrounds were also mentioned with two participants perceiving language barriers to add more stress by limiting the students’ ability and confidence to speak up.

WIL supervisor confidence around supporting student mental health and wellbeing

Table 4.2 indicates that most participants expressed low levels of confidence in recognising signs of declining mental health and supporting struggling students. Only four participants (5%) expressed strong confidence in recognising signs of declining student mental health. Even less (one to two participants) felt very confident in providing support to students who expressed anxiety, depression or was experiencing a panic attack. On the other hand, about a quarter of participants (23% and 25% respectively) had no confidence at all in supporting a student with depression or who was experiencing a panic attack.

Table 4.2 Supervisors confidence in recognising/supporting signs of declining student mental health

N=73	Not confident at all	Somewhat confident	Fairly confident	Very confident
Recognising signs of MH conditions e.g., anxiety/ depression	7 (10%)	43 (59%)	19 (26%)	4 (5%)
Supporting student who expressed feelings of anxiety	2 (3%)	38 (52%)	32 (44%)	1 (1%)
Supporting student who confided they have depression	17 (23%)	37 (51%)	18 (25%)	1 (1%)
Supporting student who is having a panic attack	18 (25%)	37 (51%)	16 (21%)	2 (3%)

Possible associations were investigated with supervisors' professional and supervisory experience (less than 10 years, or 10 years or more) and confidence in supporting signs of declining student mental health. No significant findings were noted, as summarised in Table 4.3. Utilising the same statistical analyses, potential associations with awareness around mental health and wellbeing were investigated. A significant finding ($P=0.009$) was identified indicating association between level of awareness and subsequently confidence in recognising signs of declining mental health. However, no significant findings were noted in relation to confidence supporting students with declining mental health, as summarised in Table 4.4. In addition, there were no significant findings when investigating whether the level of professional or supervisory experience had any association with awareness around student mental health and wellbeing.

Table 4.3 Supervisors' experience and confidence in supporting signs of declining student mental health

	Supervisory Experience (n=72)			Professional (Dietetic) Experience (n=70)		
	Less than 10 years, n (%)	10 or more years, n (%)	<i>P</i> value	Less than 10 years, n (%)	10 or more years, n (%)	<i>P</i> value
Confidence recognising signs of MH conditions e.g., anxiety/ depression: Not/somewhat Fairly/ very	34 (71) 14 (29)	15 (63) 9 (37)	0.48	30 (77) 9 (23)	19 (61) 12 (39)	0.16
Confidence supporting student who expressed feelings of anxiety: Not/somewhat Fairly/ very	26 (54) 22 (46)	13 (54) 11 (46)	1.00	22 (56) 17 (44)	17 (55) 14 (45)	0.89
Confidence supporting student who confided they have depression: Not/somewhat Fairly/ very	38 (79) 10 (21)	15 (62) 9 (38)	0.13	32 (82) 7 (18)	20 (65) 11 (35)	0.09
Confidence supporting student who is having a panic attack: Not/somewhat Fairly/ very	39 (81) 9 (19)	15 (62) 9 (38)	0.08	31 (79) 8 (21)	21 (68) 10 (32)	0.26

Table 4.4 Supervisors' awareness and confidence in supporting signs of declining student mental health

	Awareness around mental health and wellbeing (n=73)		
	Not/somewhat aware, n (%)	Fairly/ very aware, n (%)	<i>P</i> value
Confidence recognising signs of MH conditions e.g., anxiety/ depression: Not/somewhat Fairly/ very	16 (94) 1 (6)	34 (61) 22 (39)	0.009
Confidence supporting student who expressed feelings of anxiety: Not/somewhat Fairly/ very	12 (71) 5 (29)	28 (50) 28 (50)	0.14
Confidence supporting student who confided they have depression: Not/somewhat Fairly/ very	15 (88) 2 (12)	39 (70) 17 (30)	0.13
Confidence supporting student who is having a panic attack: Not/somewhat Fairly/ very	14 (82) 3 (18)	41 (73) 15 (27)	0.44

Participant training in mental health and wellbeing during WIL

Most participants (n=67/73) had no formal training on managing mental health conditions, as illustrated in Figure 4.5. Of those participants with mental health training, the duration of their training ranged from six hours to over forty hours. Type of training included:

- University psychology / counselling papers (n=1)
- Ministry of Health course e.g., Mental Health 101 (n=1)
- Specialised therapy as part of clinical area of practice e.g., mental health/ eating disorders dietitians (n=2)
- Workplace workshops (n=1)
- Self-directed study (n=1)

Participants who had at least a day's worth (six to eight hours) of formal training reported increased skills and confidence in managing mental health conditions and supporting struggling students (n=5), rating their level of confidence of supporting a mentally struggling student as *fairly confident* and *very confident*. None of those participants selected *not confident at all* nor *somewhat confident*. This could not be statistically correlated to responses directly referring to recognising signs of declining mental health and supporting struggling students due to the low number of participants with mental health training (n=6).

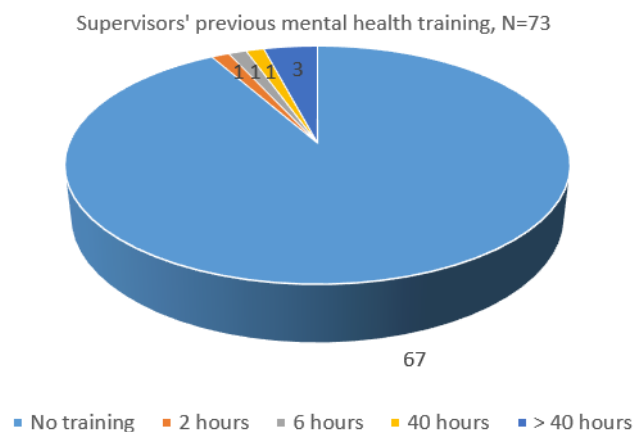


Figure 4.5 Supervisors who had prior mental health training and approximate duration

4.1.3 Stressors: WIL supervisors' thoughts and experiences

Participants considered their most recent experience with WIL students. Table 4.5 summarises responses, with the five options offered collapsed into three categories.

Student knowledge and skills during WIL

Participants generally felt that their students were adequately prepared for WIL (58%, n=41/71) and had the knowledge necessary to succeed (65%, n=46/71). However, most also thought that students struggle to balance WIL with other academic, family and work commitments (56%, n=40/72).

Table 4.5 Supervisor recall of their most recent experience with WIL students

N=72	Agree	Neither agree nor disagree	Disagree
My student(s) act like part of our team*	36 (51%)	22 (31%)	13 (18%)
My student(s) approach me with a wide range of questions	66 (92%)	6 (8%)	0
My student(s) approach other members of the team with questions	50 (69%)	10 (14%)	12 (17%)
My student(s) have spoken to me about personal problems affecting their performance	19 (26%)	16 (22%)	37 (52%)
My expectations of the student(s) are reasonable*	65 (92%)	5 (7%)	1 (1%)
My student(s) were adequately prepared for my placement*	41 (58%)	21 (30%)	8 (12%)
My student(s) brought the knowledge necessary to succeed*	46 (65%)	17 (23%)	8 (12%)
My student(s) appear nervous when I give him/her/them feedback	19 (26%)	22 (31%)	31 (43%)
I think my student(s) struggle to balance other academic work, family commitments, work, etc. when they're on placement	40 (56%)	18 (25%)	14 (19%)
I think my student(s) find finances are tight while on placement*	30 (42%)	35 (49%)	6 (9%)
My student(s) have strong time management skills	37 (51%)	28 (39%)	7 (10%)

*Indicates missing data (N=71)

Student-supervisor communication around mental health during WIL

Few participants (26%, n=19/72) reported that their students had spoken to them about personal problems affecting their performance or disclosed that their mental health was suffering (13%, n=9/72). This finding was despite most participants (92%, n=66/72) expressing that their students approached them or other members of the team with a wide range of questions relating to WIL and acted like they were part of their team (51%, n=36/71). Of the nine participants who ever had a student disclose to them a mental health problem or that their mental health was suffering, most (n=6) only had this experience with one student.

4.2 PHASE 2: INTERVIEWS

4.2.1 Participant demographics

Most of the interview participants were females working in hospital settings within metropolitan Auckland. Table 4.6 provides an overview of participant demographics.

Table 4.6 Interview participant demographics (N=11)

Demographics		n (%)
Workplace setting	Hospital	10 (91%)
	Food industry	1 (9%)
Geographical location	Auckland	9 (82%)
	Regional	2 (18%)
Gender	Female	9 (82%)
	Male	2 (18%)
Background	Born in NZ	6 (55%)
	Born Overseas	5 (45%)
	<i>Canada, China, South Africa</i>	
Professional experience	<5 years	4 (36.5%)
	5-10 years	3 (27%)
	>10 years	4 (36.5%)
Supervisory experience	<5 years	6 (55%)
	5-10 years	3 (27%)
	>10 years	2 (18%)

In presenting the interview findings, the participants' recollection of their own WIL experiences as students will first be described. Subsequently, an outline of the themes identified in the participants' perceptions of the students they supervise during WIL will be presented. Key findings and accompanying illustrative quotes will be presented for each theme.

4.2.2 Supervisors' recollection of their own WIL experiences as students

In discussing their perceptions of student mental health and wellbeing during WIL, participants were asked about their own WIL experiences. Their recollection was closely aligned with what they perceive around the mental health of the students they have supervised. Participants described positive experiences around learning new skills, developing independence, feeling recognised and being well supported by their supervisors.

I absolutely loved it and was really happy. I was quite autonomous and able to do a lot of things by myself. Supervisor 03

I was really fortunate that I had some really good mentors... To a large extent it's why I became a supervisor. Supervisor 01

However, they also overwhelmingly expressed mental health struggles during their own placement, often describing the placement as 'very stressful', 'pretty scary', and 'very daunting', often due to difficult supervisor-student interactions.

My second year was overwhelming, and I didn't have a good time [at the hospital]. Some of the dietitians were quite tough and only there to tell you what you did wrong.

Supervisor 02

Placement was pretty scary. There was definitely a hierarchy of dietitians. We were all anxious. If you wanted to get a job, then you had to be really impressive during placement.

Supervisor 07

The relationship participants had with their own WIL supervisor was subsequently a blueprint for their perceived supportive role as emerging supervisors regardless of whether this relationship had been positive or negative. Where the relationship they experienced had been negative, participants reported heightened motivation to be a different supervisor with their own students, as reflected by the quote below.

My own placement was primarily at [hospital] in those days where the culture was that the dietitians were God, and you were the servant... It was not a good learning environment and I felt helpless ... It didn't put me off being a dietitian 'cos I knew I just wanted to be a different kind of dietitian and a different kind of supervisor. Supervisor 09

External influences on their mental health and wellbeing during WIL were also raised, such as family pressures.

My final placement was massively stressful ... My family lived overseas and there were some issues going on... There was this sense that I had to go home, and I couldn't... I remember that placement, not wanting to have a meltdown and then it all goes to crap.

Supervisor 04

In addition, participants discussed pressures associated with the need to relocate for WIL and short notice changes to WIL sites. One participant mentioned needing to make her way to four different regional sites before her allocation finally got confirmed (fifth site) and being responsible for all flight changes.

The ability to access counselling support was raised as a significant barrier to mental health and wellbeing. One participant explicitly recalled challenges accessing support as a student.

As a student the problem I had was that you could only book a counselling session on the day you needed it, so I couldn't access the support I needed... I didn't have time to put myself first because the course was so demanding. Attendance was so strict I couldn't take a day off to go to counselling. Supervisor 02

One participant fervently described the significant impact that university tutors can have on student mental health and wellbeing outside of external counselling support by creating a safe space for students to come together during WIL and support each other through shared experiences.

We used to do reflection groups with one of our tutors... We used to get a coffee and sit in the park and there might be tears, there might be laughter... We felt really comfortable to share things knowing that other people are feeling the same thing or have been through it before. Supervisor 03

4.2.3 Summary of themes, sub-themes and codes pertaining to WIL students

When focussing on their perceptions and experiences of the students they supervise during WIL, three key themes emerged from supervisor interviews:

- WIL student mental health and wellbeing
- Factors that influence WIL student mental health and wellbeing
- Approaches to support WIL student mental health and wellbeing

The associated codes, sub-themes, and themes that arose from the analysis of the supervisor interviews are summarised in Table 4.7.

Table 4.7 Interview key themes, subthemes and codes

Themes	Subthemes	Codes
WIL student mental health and wellbeing	Mentally Struggling	disengaged, overwhelmed, anxious, under stimulated, tears, stressed, eating disorders, defensiveness, defensive, worried, very tense, exhausted, withdrawn, speak too much, stuck, scared, meltdown, concerned
	Mentally Thriving	flourish, coping, balanced, stable, confident
Factors that influence WIL student mental health and wellbeing	Favourable Factors <ul style="list-style-type: none"> • Individual <ul style="list-style-type: none"> - Internal factors - External factors • Relationships <ul style="list-style-type: none"> - Within WIL - Outside WIL • Organisational <ul style="list-style-type: none"> - Workplace - University - Other 	<p>Internal: flexibility, resilience, personality, mature, motivated, self-esteem, self-efficacy, self-care, self-awareness, autonomous, confidence, reflection, reflecting, acknowledging positives, preparation, ask questions, adapting, outspoken, communicative, express</p> <p>External: remuneration, home life, home environment</p> <p>Within WIL: welcoming, warmth, warm, trust, supportive, supported, support system, support, share own stories, one on one, positive supervisor, mentor, relationships, relationship, reflection, reflecting, acknowledging positives, buddy system</p> <p>Outside WIL: home stability, family, personal life, home life, home environment</p> <p>Workplace: preparation, counselling, small hospital, social occasions</p> <p>University: preparation, counselling</p> <p>Other: weekend work</p>
	Unfavourable Factors <ul style="list-style-type: none"> • Individual <ul style="list-style-type: none"> - Internal factors - External factors • Relationships <ul style="list-style-type: none"> - Within WIL - Outside WIL • Organisational <ul style="list-style-type: none"> - Workplace - University - Other 	<p>Internal: hypercritical, critical, personality, self-doubt, pressure, perfectionists, eager to please, cover up, weakness, good impression, introverts, reserved, quiet, reflection, reflecting, upbringing, anxiousness, anxiety, values, personal life, shy, sheltered, nervousness, nerves, naïve, language barrier, cultural competency, redactive, being job worthy, confidence</p> <p>External: remuneration, renting, COVID-19, home life, home environment, accommodation, away from normal environment, car access, pay double rent, financial pressure, finance hardship, new hospital, new environment, new city, economic, place to live, no previous experience, thesis, living with extended family, stresses, food</p> <p>Within: fitting in, team culture, isolation, hard tutor, competitive, hierarchy, hierarchical relationships, relationship, Intimidating, not gelling, bias, assumption, felt in the way, feel in the way, feeling judged, prejudice, tough, marginalised, language barrier, culture, cultural shift, outsider, values</p> <p>Outside: home stability, personal life, home life/environment, family passing away, family obligations, normal support absence</p> <p>Workplace: workload, travel, short time, multiple locations, hierarchy, hierarchical, Intimidating, daunting, overwhelming, stressful, stress, terrible diseases, sickness, scary, challenging, boring</p> <p>University: workload, assignments, travel, thesis</p> <p>Other: COVID-19, work pressure, weekend work</p>
Approaches to support WIL student mental health and wellbeing	Supportive	degree of support, downtime, culturally appropriate, comfortable, interaction, identify early, identify, flagging, assess, extra coaching, guidance, exposure, expectations, expectation, encourage, empathetic, empathy, feedback, communication, communicate, life learner, listening, learning style, kind, humanity, immersion, health psychologist, PHQ-9, questionnaires, orientation, protected, protect, strategies, cues, body language, eye contact, progress, open, stepping back
	Detrimental	mismatched expectations, (destructive) feedback, communication, communicate, language barrier, stigmatise, frustrated, protect (over), pressure, outsider, newbie

4.2.4 WIL student mental health/wellbeing

Participants shared less positive and more negative perceptions of student mental health and wellbeing during WIL (Figure 4.6). A few comments emphasised students mentally thriving during their placement; developing skills and confidence and making the most of the WIL opportunity and supervisor feedback. However, the most common finding from most interviews was the perception that students often struggled mentally.

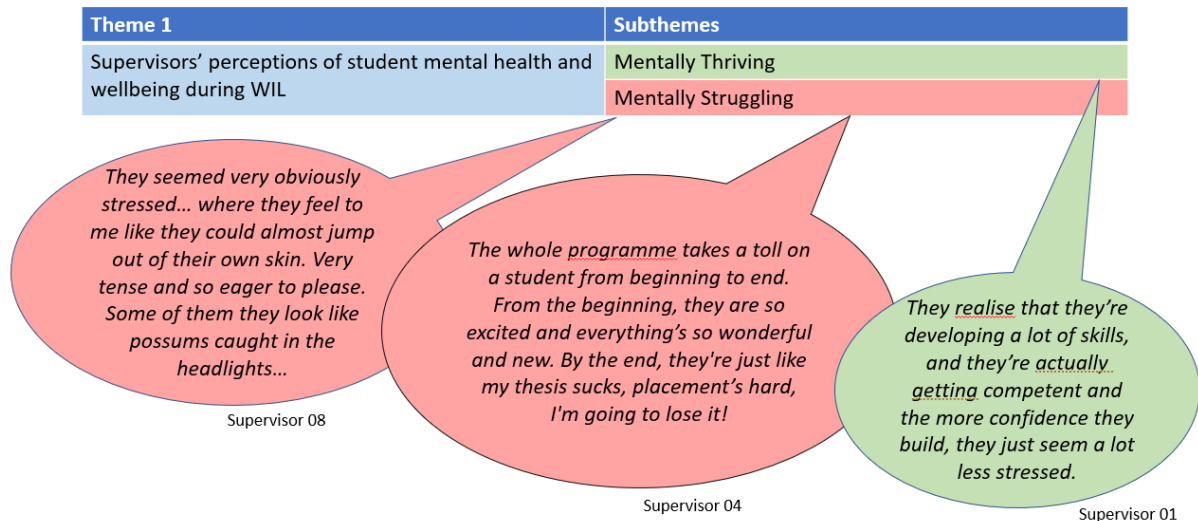


Figure 4.6 WIL student mental health/wellbeing

One participant also expressed concerns around stressors during WIL leading to eating disorders being triggered or exacerbated in a couple of students. Another participant recalled a student frequently in tears during WIL, so much so the supervisor could never bring up any feedback without the student bursting into tears, therefore needing to involve the University coordinator instead. In addition, a few participants reported negative changes in the mental state of students as the WIL experience progressed.

4.2.5 Factors impacting WIL student mental health/wellbeing

Participants described various factors influencing student mental health and wellbeing during WIL. Three subthemes emerged from the interviews: individual-, relationship- and organisational factors. Favourable and unfavourable influences were noted across each subtheme. A visual summary is provided in Figure 4.7.

Theme 2	Subthemes					
Supervisors' perceptions of factors influencing WIL student mental health and well-being	Individual		Relationships		Organisational	
	Internal <ul style="list-style-type: none"> • Personality • Skills • Experience 	External <ul style="list-style-type: none"> • Lodging • Transport • Finances 	During WIL <ul style="list-style-type: none"> • Supervisor • Peer 	Outside WIL <ul style="list-style-type: none"> • Family • Friends 	Workplace <ul style="list-style-type: none"> • Preparation • Support • Environment 	University <ul style="list-style-type: none"> • Preparation • Support • Workload

Favourable and Unfavourable influences

Figure 4.7 Factors impacting WIL student mental health/wellbeing

Individual factors

Several individual-related factors were apparent, with either internal or external factors identified. Internal factors such as personality, skills and experience were frequently described by participants. Student personality in particular was felt to be a key factor impacting their mental health and wellbeing during WIL. Participants thought that WIL students who thrived showed personality traits such as flexibility, confidence, self-esteem, independence, and maturity. They demonstrated skills which included resilience, self-efficacy, self-awareness, proactivity, reflective practice and communication. These students often also had some familiarity with the hospital environment through proactively undertaking volunteer work in this setting.

Some who are really stable, balanced and centred are fine and they can cope. Even some of those might not be coping, but are speaking out because they're balanced and centred.
Supervisor 04

Some students, they've got much more background, they've tried a variety of things... they've done a lot of volunteer work so feel comfortable here. Supervisor 06

In contrast, the following comments highlight traits found to be common among dietetic students such as being hypercritical, perfectionistic and lacking confidence, often damaging their mental health and wellbeing during WIL. Students who mentally struggled during WIL also often showed anxiety about being in a foreign environment (hospital setting), further exacerbated by COVID-19.

It was also felt that students concealed their struggles, in an effort to make a good impression and appear job worthy due to concerns that any disclosure may be perceived as a weakness.

I honestly have to tell them, what have you done well? Because they always tell me what they've done wrong... picking up their flaws without acknowledging the things they've done well. Supervisor 01

Their anxiety has really affected how much they've been able to get out of the placement. Perhaps a lack of self-confidence or self-esteem also really affected the way they take feedback. Supervisor 07

Key external factors emerged as sub-themes that can impact student's mental health and wellbeing during WIL, particularly finances, lodging and transport. Participants did not explicitly identify favourable external factors. These were mostly implied from the unfavourable factors they described, for example, flexible finances, appropriate low-cost lodging, and easy access to transport were all felt to be supportive influences. One participant who trained a long time ago, mentioned being paid while training and the stark contrast to the financial demands on students nowadays. Student finances were consistently described as a major external factor negatively impacting mental health and wellbeing during WIL. Lodging and transport requirements were often linked to finances, e.g., students needing to pay double rent and travel costs when moving to regional centres for WIL. Several participants expressed concerns around the large financial burden that some students need to carry to undertake WIL. Isolation and reduced social connections / supports were also raised as significant concerns.

Renting temporary accommodation, getting food, just sustenance and finding a place to live and then needing to have a car here in [regional town]. Some of them have part time jobs and they must leave to do their placement or else they have to travel back to Auckland for their weekend work. They're keeping two households going. Supervisor 08

The stress of being away from their normal environment - some of them are living with extended family or living with friends, with their parents or they're having to pay rent in Auckland and pay rent here. Supervisor 07

Participants did not feel that all these external challenges were necessarily unique to students undertaking WIL in regional centres, for example, many students face long commutes in the spread-out city of Auckland with often limited public transport options and high parking costs. However, issues around student finances, lodging and transport were felt to be much more pronounced for those students who did have to travel to a different city or region.

Relationship factors

Nearly all participants identified the supervisory relationship as having a major influence on student mental health and wellbeing during WIL. Supervisory relationships which were welcoming, warm, open, trusting, supportive and based on reciprocity were described by participants as conducive to student mental health and wellbeing.

The nervousness and anxiousness in the first few days appeared to definitely go after a few days when they got to know the team, how myself or the other supervisors practice, how we're open books, and very easy to communicate with. Supervisor 03

In contrast, student mental health and wellbeing was felt to be thwarted by supervisory relationships which were judgmental, intimidating, highly hierarchical, inflexible, biased or where personalities clashed.

I have seen situations where there's a lot of tension between the supervisor and the student. Sometimes you know it's the supervisor's 'fault' or sometimes it's just like they don't gel with who they've got. Supervisor 06

In addition, most participants shared a sense that there may be cultural influences at play when describing supervisory relationships, but many struggled to articulate this in detail.

Your culture influences how you do everything in life doesn't it? So, it would follow that it would influence the way you supervise students... We think about it a lot in terms of how we interact with patients of different ethnicity. Supervisor 07

However, some supervisors readily identified cultural misunderstanding as an important barrier to supportive supervisory relationships. These supervisors were typically born overseas and drew on their experiences both as a student and supervisor. Supervisors from diverse backgrounds were also mindful of how other supervisors may perceive more reserved students as less able but acknowledged that some students grew up often being taught to be seen and not heard. Moreover, for some, saving face is so important that opening up about any 'perceived' weakness such as mental health struggles would be culturally inappropriate. The two quotes below were shared by supervisors who described themselves as "Westernised Asians".

I look at the non-Chinese students in my class and, to be honest, we're just different... I can see that sometimes they do struggle to express their opinion. [Whereas] we're trying to encourage students to do critical thinking and ask questions. Supervisor 06

A lot of students are probably quite good at covering [issues] because they don't want it to be perceived to be a weakness... [mental struggle] is not a thing that people would talk about openly, like they expect to be judged. Supervisor 05

Other supervisors considered differing social class cultures alongside concerns for students from minority groups feeling culturally unsafe. Some supervisors who strongly identified as Pākehā were very aware of cultural differences including their own bias. Supervisors considered differing social class cultures and highlighted potential mismatch between some students' social class culture and the culture of important social institutions like the workplace, or the university, or even wider professions. The supervisors also considered students from minority groups, be it ethnic or those who identify as LGBTQ+, and how supervisor perceptions may influence relationships and subsequently student mental health and wellbeing.

I really feel anyone in a marginalised position is going to start on the back foot. We are not all equal. Supervisor 09

Further to supervisory relationships, peer interactions were described by participants as a noticeable influence. This could be considerably positive, especially when students travelled to regional sites together and got along well.

It really helps when there are two students that are placed up here are friends... they've got each other as a really good source of support and that definitely makes it easier. Supervisor 07

However, a few participants also described peer influences of a less favourable nature, often due to competition to land a job or differences in personality.

They probably feel more comfortable opening up in a one-on-one situation. Definitely not in a group because obviously there is competition, they probably do feel competitive to each other sometimes. Supervisor 05

Participants also mentioned the support from family and friends outside of WIL as key influences on student mental health and wellbeing. Similarly to external individual-related influences, when participants mentioned support from family and friends, they did not explicitly identify positive influences. These were mostly implied contrary to the negative influences they described, such as, diminished social connection when isolated from family and friends or stress especially related to family obligations or ill-health. The negative impact of family pressures, ill-health or bereavement was felt to significantly affect student mental health and wellbeing during WIL.

One group went through a lot of stresses in their personal life, family members being sick or passing, and that has a major effect. Supervisor 11

If you have kids or if you're older and are trying to manage your own family with your own children and stuff, that really can impact things that happen on placement. Supervisor 04

Organisational – Workplace factors

Participants identified preparation for the workplace with a thorough orientation and clear, well-structured timetable as important positive influences on student mental health and wellbeing. However, having multiple workplace supervisors was seen to impact student mental health and wellbeing negatively due to constantly having to adapt to a new supervisor, often with different expectations and supervisory styles which students feel they need to accommodate to do well, as well as having to adapt to new locations. One participant, who had been a dietitian the longest and described herself as having worked in many iterations of healthcare over 30 years, remarked that there had been a significant change in supervision practice. She remembered having students for quite long periods of time, recalling a period of at least six weeks when she first started supervising students but now, she supervised students for one week at the most, with the supervision also being shared among the rest of her team.

The placement can be changing in different locations each week, which means [the student] may have to get used to different supervising dietitians and communication styles. So definitely it takes a lot of adapting from a student perspective. Supervisor 05

Nearly all participants considered workplace counselling support available for staff, but they either commented that students could not access these services, or they were unsure if the services were accessible to WIL students. Only one supervisor, who worked in the food industry, was confident that students could access their workplace counselling support as students were considered part of the team during WIL. Most supervisors wanted to know if and what counselling support was accessible through the university, the process for connecting students with such services, as well as information on how to identify students who may be mentally struggling but not opening up about their struggles.

It would be really nice to know whether the student is experiencing anxiety and whether they potentially are not saying anything to their supervisor... A lot of people suffer quietly, so it would be really great to know if Massey had a procedure or protocols that they could share, so supervisors know what to look out for potentially with the students. Supervisor 11

Some participants also brought up organisational barriers to counselling support such as appointment times clashing with WIL activities, location of counselling services away from the workplace e.g., on campus, and the travel required to attend prohibitive, which was particularly relevant for students in regional sites.

The team culture, including how well students were integrated within the team, was identified as a significant workplace influence. Workplaces that were small, welcoming, and where students were included in both professional and social events by personable supervisors were seen to favourably influence their mental health and wellbeing during WIL. On the other hand, student mental health and wellbeing was felt by participants to be unfavourably impacted by rigid and hierarchical workplace cultures that do not embrace students and their different perspectives, and where teams consider students to be in the way, which make it difficult for them to fit in. In addition, the workplace environment itself was felt to significantly influence student mental health and wellbeing. Most participants worked in hospital settings, and many described the highly acute and fast paced nature of the hospital environment stimulating for some students, but overwhelming for the majority. Similarly, participants identified that working with people with life-limiting illnesses and their family, or people who do not engage in their care, was very confronting for students.

Some just are not really expecting how they will feel... They cannot remove the emotion attached... It can be quite a shock for a young person.

Supervisor 09

Several participants also identified the COVID-19 pandemic as a major negative influence on student mental health and wellbeing, especially in the workplace. They described the hurried pace of hospital work and severity of patients intensifying during the pandemic. Furthermore, the pandemic resulted in disruptions to WIL schedules and when students were able to return to placement, they needed to adjust to a raft of organisational precautions and processes in addition to all the typical new learning and experiences that hospital placements entail.

COVID had such a big impact on them... a lot of underlying anxiety about COVID ruining their placements and knowing that at any point we could go back into lockdown has been quite nerve wracking for them. They also had to take on a bit more... So it's an extra added stress to be at the forefront of seeing people in close proximity. Supervisor 03

Supervisor mental health also emerged during the interviews for a small number of participants, which was conveyed in the COVID-19 context and generally. A couple of participants felt that engaging in supervision during the pandemic resulted in added stress for some supervisors who were already struggling themselves, subsequently negatively impacting student mental health and wellbeing.

COVID-19 is a massive factor that's impacted the mental health of not just students but everybody... You have created a new element of stress on the dietitians who are working and then you put students on top of that. So sometimes that itself is not a positive life situation. People maybe aren't as resilient or aren't as patient. Supervisor 04

Notwithstanding COVID-19, one participant brought up supervisor mental health in the context of feeling obliged to support a student when they themselves may not be in the right space to take this on. In addition, another supervisor described the negative impact of supporting a mentally struggling student on their own mental health, which subsequently engendered apprehension around supervising other students.

As dietitians, we have our own mental health issues as well. From those that don't feel like having students, and we have to have them. We like a break too. Supervisor 09

It was pretty stressful. I was really hesitant about having a student again, as I felt like it really hadn't gone particularly well. I did lose sleep over it, I definitely did. Supervisor 07

Lastly, one participant mentioned undertaking a project with hospital dietitians around their own mental health with most expressing a desire to know what services and information they could access for free to support their mental health and wellbeing.

Organisational – University factors

Participants perceived students who were well prepared for the challenges of WIL, and how to handle these, to be more likely to thrive during placement and utilise appropriate coping strategies to help them succeed. There were mixed responses from participants in terms of the preparedness of students they supervise, with some reporting that students were well prepared for WIL and others advocating for better preparation at the university level, implying that some students were not as well prepared.

Massey students are definitely much more prepared when they come to placement. They appear to be more professional. They seem to be a bit more mature in terms of handling difficult situations. They have been able to let me know they were stressed. Supervisor 05

The university should better prepare students for how hard and demanding placement is going to be. Giving them strategies to deal with it and letting them know what they could do if they needed to reach out to someone. Supervisor 02

A few participants remarked on the COVID-19 pandemic hindering some of the practical preparation and exposure that students would normally get at university. This outcome was seen to subsequently impact on student mental health and wellbeing after entering a hospital workplace following months of online learning and disruptions to scheduled placements which made the workplace environment even more foreign for students.

I've seen the difference between those who were pre-COVID-19 versus post. They just haven't had the same exposure and being comfortable enough in the clinical setting. If you're in like your final block placement and you haven't had the same amount of exposure, then that can add a lot of stress. Supervisor 01

Furthermore, supervisors discussed the vital role they perceive the university should have around supporting students during WIL, especially in terms of sharing information around accessing counselling support, having open communication around mental health and providing pastoral care.

[The university] should offer counselling services if [students] need it. These are your students that you're sending out on placement. It's ensuring that they're comfortable talking to you about things that come up because the university's going to be the first person that they're going to call if something comes up. Supervisor 04

Something like student counsellors, placement readiness training would be really great to prepare students for some of the expectations that would come from a workplace and could potentially alleviate some of the anxiety if you know what to expect and you know what you're walking into. Supervisor 11

The final university specific factor that supervisors brought up was workload. Several participants commented on large and often competing workloads for students during WIL. The research thesis requirement of the dietetics programme was emphasised by some participants as a major source of stress. These participants felt that it sometimes encroached on already stressful WIL placements, further impacting student mental health and wellbeing.

They have that feeling of needing to go home and do the thesis... They say, "I'm so exhausted from placement, and then I go home and feel stressed that I have to try do a bit of my thesis". Supervisor 03

They're under pressure with their thesis. They have quite a big amount of work to do in their final placement and their case studies, but a lot of them are really trying to get through their thesis as well. That's quite stressful. Supervisor 07

4.2.6 Approaches to support student mental health/wellbeing

The third and final theme that emerged from the interviews comprised approaches used by supervisors to support student mental health and wellbeing. Most supervisors brought up communication, both verbal and non-verbal, as a main influence which can make or break a WIL student. Figure 4.8 provides an illustrative snapshot of key supportive and detrimental approaches described by participants.

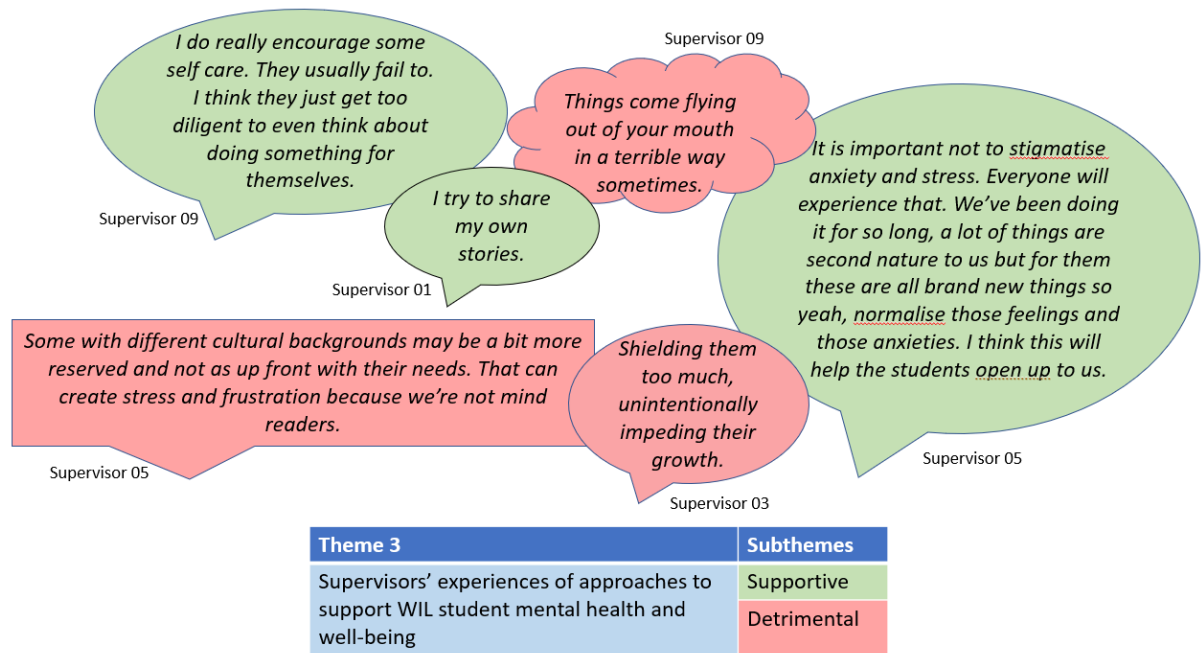


Figure 4.8 Approaches to support WIL student mental health/wellbeing

All participants felt that it was their role to support student mental health and to assist struggling students. Many described that the role of supporting a struggling student should be shared between the placement coordinator at the workplace and university, especially if serious concerns were identified.

It's something that we need to manage. Not something that we can just let be because it's not going to go away. The earlier we can identify that and deal with the better.
Supervisor 05

However, the perceived level of involvement varied among supervisors. A few were unsure of the level of involvement they should have, also identifying that the supports required by some students may be beyond their scope of practice.

It's our role but I don't know that I feel particularly confident that I have the skills to help them. I'm not a psychologist or a counsellor... it's really important that we support them, but I don't know that I'm necessarily the best. Supervisor 07

Some supervisors described new awareness around their role in supporting student mental health from participating in the interviews, often realising gaps in current knowledge, skills, and practice, including when comparing what they would normally do for a patient.

My role is obviously to help as best I can... from the conversation we've had now I've realised that I just go on what [the student] said but there's no clarification in asking them about their [mental health] or supports. Whereas if I was seeing a patient, I have a [screening tool] which I run on patients and I'll refer them for services if I detect something... saying you definitely need support, can I call your GP, I'm going to phone them today. I've never done that on a student and it's not something I've actually considered before. Supervisor 01

Supportive approaches – WIL supervisor

Positive relationships based on openness, trust, kindness, empathy and understanding were identified by participants to be empowering for students. Again, participants related openness and understanding to working with students with different personalities, learning styles and cultures, emphasising the importance of valuing all and not making assumptions.

I try to be kind... above everything else really... try and create a good learning environment and lots of warmth. Supervisor 08

You need to be very mindful, for example not underestimating the introverts. If you're one to one, and they trust you, it's amazing what you can find from someone who could've been labelled meek and not really communicative. Supervisor 09

Most participants highlighted the value of shared experiences, framing challenges using a lifelong learning perspective and an encouraging attitude. Participants discussed the benefits of normalising feelings of stress and anxiety to let students know they are not alone and that some of those difficult feelings are natural to experience. Participants felt that students were more likely to open up about their struggles and be receptive to advice as a result.

When you make a mistake or have things that don't go to plan, it's actually better because you don't forget those. I try to share my own stories.... I often pick up stuff in clinic that I forgot to do... Those are the ones you learn the most from. Supervisor 01

It's important that you share that you've been in their shoes before and that you are a strong life learner and that you make mistakes, and you have stresses in your own life. It's important that they know you're not without empathy. Supervisor 09

Participants also highlighted the importance of being observant and considering how the student presents as a whole. They discussed paying attention to students' non-verbal cues such as body language and eye contact, not just relying on what they say. Most supervisors described the need to be proactive if a student appears to be mentally struggling and creating one-on-one time and space to ask if they are okay. Several participants also conveyed the importance of establishing with the student the extent of their struggle and have open conversations about what might help so they can receive tailored support.

Ask them if they felt comfortable to let me know what was stressing them and whether there was anything I could help with. I would ask them if this has happened in the past, what would they normally do... assess how extreme it is. From there getting in touch with supervisors from university if it is something that is really impacting them. Supervisor 03

You have a moral and ethical decision about taking that further. Whether they're just having a rough day, and need a pat on the back, "you'll be fine, keep going" or whether it is more deeply worrying, you do need to take that further. Supervisor 09

Participants further discussed strategies which they have found helpful in supporting student mental health and wellbeing. Many discussed revising the workload, giving the student permission to take a step back or some time off, identifying where and what extra coaching or guidance is required, clarifying expectations, and again making time to listen and problem-solve together with the student; additionally connecting the student with counselling supports as required.

Keeping their workload to a minimum, while making sure that they we're still meeting their requirements for their placement. Also providing extra coaching if they need it around all the clinical stuff and helping them to get up to speed if that's the issue. Letting [the University Coordinator] know if some supports for counselling are available through Massey we could link them into if they were willing to do that. Supervisor 07

I say, "if you're feeling overwhelmed, it's becoming too much, just please ask if you need a break, there's nothing wrong with that". They feel like that they can't miss a day, they've got to make those hours up. To some degree, yes but to what expense; not your mental health – just go and take a break. Supervisor 04

Several participants emphasised the need to encourage and support self-care, identifying that many of the students they supervise privilege work at the expense of self-care and don't seem to recognise the importance of downtime.

I do really encourage some self-care. They usually fail to. They just get too diligent to even think about doing something for themselves. Supervisor 09

I'm constantly saying, "are you actually okay, what are you doing when you get home?" To me, it's more important. Whatever is happening on placement is placement, I also want to know, "are you taking some time out, are you resting?" Supervisor 04

One participant also talked about protecting the student from too much stress and selecting "student-friendly" patients. In addition, being purposeful when determining the student's workload to provide a good amount and range of learning opportunities without overwhelming them. Another participant raised the need to be more intentional in asking mentally thriving students about their strategies for success, recognising that supervisors instead seem to focus on the ones not coping. Identifying positive mechanisms used by successful dietetic students during WIL would be very helpful but this is not common practice.

The various supportive approaches described by the participants have been included in the Good Practice Guide Supporting WIL Student Mental Health / Wellbeing developed as part of this thesis (Appendix G).

Detrimental approaches – WIL supervisor

Supervisory relationships that exude frustration, tension and negativity, often due to a misalignment of expectations, cultural miscommunication or language barriers were considered detrimental. Providing destructive feedback to students, stigmatising them and not including them within the team were identified as demotivating and detrimental to student mental health and wellbeing.

It doesn't always work out. Things come flying out of your mouth in a terrible way sometimes. Supervisor 09

Some people with different cultural backgrounds may be a bit more reserved and not as up front with their needs. That sometimes can create stress and frustration because we're not mind readers. Supervisor 05

When describing supportive approaches, some supervisors touched on opposing detrimental approaches but did not elaborate. For example, a few participants mentioned the tendency to ignore signs that the student may be mentally struggling, or not knowing what to look for in the first place. In addition, they suggested a lack of communication with some supervisors not flagging concerns, instead expecting others to identify and address any issues. Finally, one participant brought up a different perspective to the others by identifying the possible detrimental effect of approaches that are overly supportive. She described her own tendency to sometimes be too lenient or overprotective with students, shielding them from challenging situations which may in some cases end up being detrimental to their long-term growth and development.

5. DISCUSSION

CHAPTER OVERVIEW

This exploratory mixed methods study aimed to explore workplace supervisors' perceptions of student mental health and wellbeing during their WIL programme and their role in supporting students in this context. To the best of the author's knowledge, this is the first research in NZ to explore workplace supervisor perceptions around student mental health and wellbeing during WIL. Study findings will be discussed according to the research questions posed and in the context of existing literature. A brief discussion on the limitations and future implications of this research will also be addressed in this chapter.

5.1 WIL STUDENT MENTAL HEALTH/WELLBEING

5.1.1 *Less positive and more negative*

Supervisors shared less positive and more negative perceptions of student mental health and wellbeing during WIL. While positive experiences were reported, with WIL students described to be in good mental health, well connected to their peers and supervisors, gaining more skills and confidence, and thriving in the workplace, such reports were less common. Regrettably, negative perceptions were much more prominent in the supervisors' reports. There was an overpowering sense among supervisors that high stress, acute anxiety, and feeling overwhelmed were commonplace when considering both their WIL students and their own experience as dietetics students. It is relevant to consider possible bias from supervisors as they often drew on their own WIL experience as students, potentially transferring their own experiences, which may not in fact fit the reality of their student(s). However, the supervisor perspectives gathered in this study do confirm the anecdotal information collected from dietetic educators at Massey University who indicated that WIL is highly stressful for dietetic students with some struggling to meet placement milestones due to anxiety, panic attacks or depression. Furthermore, supervisor perceptions collected in this study are consistent with findings from recent research conducted with dietetic students internationally, where a notable subset in the USA experienced symptoms of depression, anxiety, and stress that ranged from mild to extremely severe. These symptoms were reported by students even before they undertook WIL internships but were often linked to those internships, for

example, being a strong enough candidate to qualify for an internship as well as funding the internship if successful (Patten & Vaterlaus, 2021). It is possible, therefore, that students may feel just as much pressure during WIL to prove that they are worthy of their internships and subsequently employment. Findings from this study suggest as much, with many supervisors perceiving that students frequently conceal mental health struggles, to make a good impression and appear job worthy. In the United Kingdom, Longyear (2022) confirmed negative shifts in mental health during WIL where more than half a cohort of dietetic students reported that their mental health worsened during placements.

This outcome was also implied in Australia, where two recent studies that did not set out to investigate dietetic student mental health in particular did identify collaterally that a number of negative emotions and tensions needed to be managed by dietetic students during their placement experiences (Dart et al., 2022; Markwell et al., 2021). In addition, authors across other disciplines have reported significant rates of anxiety, depression, and or suicidality in about a third of their university student cohort (Eisenberg et al., 2013; Lipson et al., 2019; Quek et al., 2019; Zeng et al., 2019). In the NZ setting specifically, Slykerman and Mitchell (2021) found high rates of stress, anxiety, and poor psychological wellbeing in a sample of 120 first year university students enrolled in a medical science course at the University of Auckland. When considering WIL in particular, many authors have described WIL, especially practical placements in hospitals, as often synonymous with increased stress and anxiety in health professional students (Alzayyat & Al-Gamal, 2014; Blomberg et al., 2014; Dart et al., 2022; Greenlees et al., 2021; Hughes & Byrom, 2019; Rotenstein et al., 2016).

It is vital to acknowledge the aggressive assault by the COVID-19 pandemic on the mental health and wellbeing of students, as described by several authors (Cao et al., 2020; Grubic et al., 2020; Heumann et al., 2023), and supported by findings from the WIL supervisors surveyed in this study. However, it is also important to realise that concerns around student mental health have been raised in the literature well before the advent of COVID-19 (Alzayyat & Al-Gamal, 2014; Blomberg et al., 2014; Eisenberg et al., 2013; Lipson et al., 2019; Quek et al., 2019; Rotenstein et al., 2016). This situation indicates that student mental health and wellbeing are important issues for all WIL programmes irrespective of the pandemic but is now even more pertinent given the known mental health impacts of COVID-19.

5.2 THE IMPACT OF WIL ON STUDENT MENTAL HEALTH/WELLBEING

5.2.1 *Factors across individual, relationships and organisational levels*

The supervisors in this study described a variety of factors impacting student mental health and wellbeing during WIL. In accordance with Lisnyj et al. (2021), the socio-ecological model for health promotion was found to not only be effective in categorising findings, but it was also useful in demonstrating complex relationships between the various demographic, psychological, emotional, social, physical, academic and workplace factors impacting student mental health and wellbeing during WIL. Favourable and unfavourable influences were noted across each of the categories identified in this study and findings were aligned with the Mental Health and Wellbeing Ecological Model adapted by the University of Minnesota (2021). Consistent with findings from Lisnyj et al. (2021), the first three SEM levels (i.e., individual, interpersonal, and institutional) were found to be most prominent. Connections across the levels were also noted, for example, individual traits and culture influencing the establishment of student-supervisor relationships, and in a similar way organisational culture and practices influencing supervisory relationships. Figure 5.1 was created to help illustrate the identified impacts on student mental health and wellbeing during WIL in relation to the SEM and the perspectives of the WIL supervisors captured in this study.

The myriad of internal/external factors at an individual level reported by the WIL supervisors in this study revolve around student personality, skills, and resources, all of which have also been cited in the literature (Lisnyj et al., 2021; Markwell et al., 2021). Findings from the quantitative questionnaire were generally confirmed by the qualitative interviews. An interesting difference was around the impact of student finances with only 42% of supervisors thinking that students find finances tight while on placement. Meanwhile, student finances were mentioned a lot in the interviews with supervisors describing huge cost burdens on students, especially when needing to travel to regional WIL sites. It is possible that supervisors contemplated this impact in more depth as part of interviews or that the interview pool of supervisors was inadvertently skewed towards greater numbers having this experience. What stood out was that despite a general negative tone around student mental health and wellbeing and the different factors at play, there was an emphasis on large fluctuations and variability among students. This echoed observations from other authors who also reported that students react to stressors in different ways (Deasy et al., 2014; Ekpenyong et al., 2013).

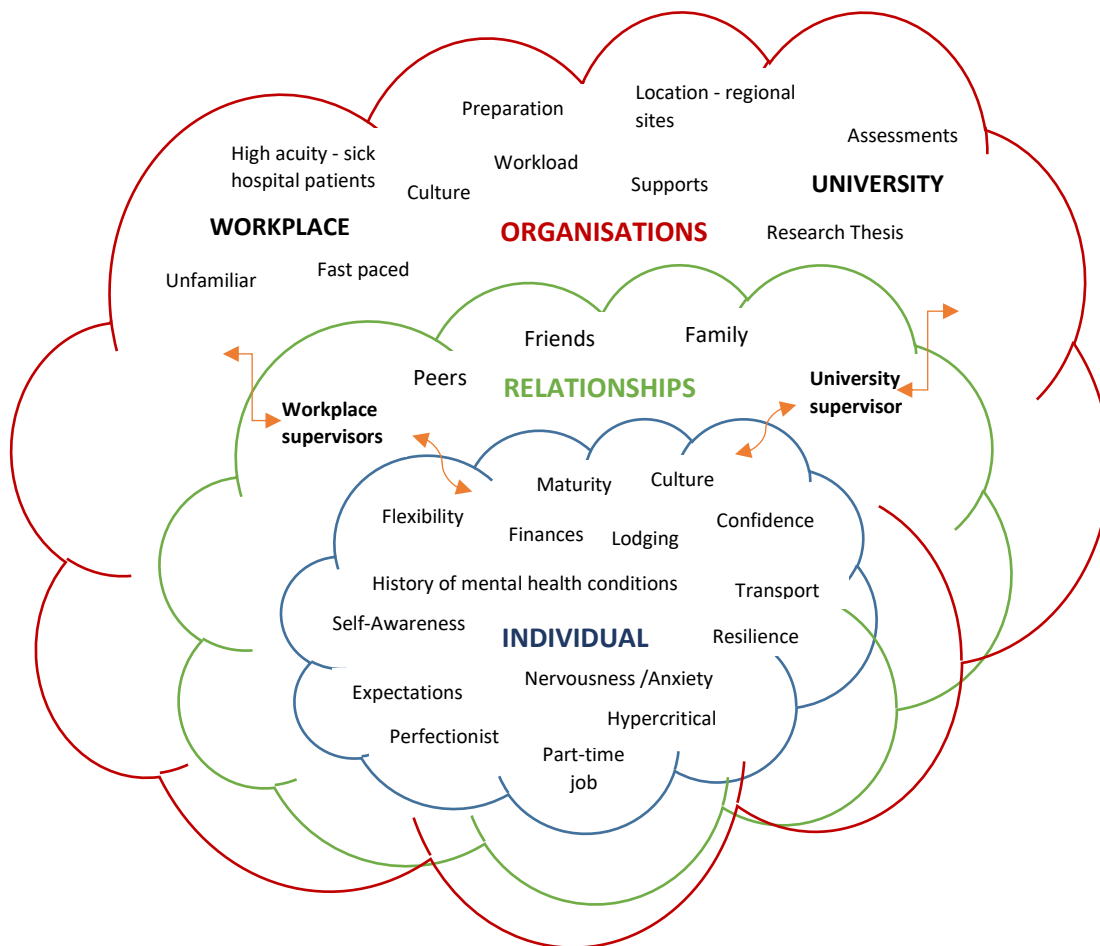


Figure 5.1 Key identified impacts on student mental health/wellbeing during WIL

A key question that arises as a result is why do some students thrive during WIL and other students struggle? Some studies have identified gender differences in perceptions of and reaction to stress, with female students reporting higher overall levels and reacting more frequently to stressors compared to their male counterparts (Hodselmans et al., 2018; Porru et al., 2021; Slykerman & Mitchell, 2021). Potential reasons for the gender differences included higher effort, lower reward, higher effort-reward imbalance, and higher overcommitment (Porru et al., 2021), women spending more time studying than males (Hodselmans et al., 2018), or female students being more readily able to identify feelings of stress (Slykerman & Mitchell, 2021). However, the WIL supervisors in this study did not make distinctions between genders. Arguably the dietetic student cohort is known to be predominantly female, which limits such comparisons. However, one of the male WIL supervisors made an interesting observation around his own assumption that male student dietitians would be more relaxed and less affected by stress, but his experience proved different.

Anecdotal reports from the dietetic educators at Massey also indicate that male student dietitians have experienced acute anxiety just like their female counterparts, with difficulty coping with stress and requiring remedial time alongside counselling support to achieve the requirements of the WIL placement. An interesting comment from another WIL supervisor suggested that supervisors typically have a stronger focus on scrutinising struggling students. As a result, they often miss opportunities to understand the protective and supportive internal factors which enable other students to succeed.

Resilience has emerged as an important skill for students in supporting their mental health and wellbeing during WIL. This accords with observations from other authors and supports the work of recent research in this area linking high resilience with positive student mental health and wellbeing outcomes such as lower stress levels, and consequently improved performance, success and achievement of critical graduate capability (Lisnyj et al., 2021; Ross et al., 2022; Tomlinson, 2017). However, findings from this current study revealed a sense that most WIL supervisors consider resilience to be a characteristic student attribute, not a skill to be learned. This view could stem from generational expectations and a professional culture where teaching technical competence has been a focus for supervisors. However, when it comes to 'soft skills', which include resilience, students are perceived to either have them or not, with no obligation from supervisors to teach behaviour-based skills. This perception is not unique to dietetics with authors such as Andzik and Kranak (2021) and Cruess and Cruess (2012) recognising that supervisors in their fields (behaviour analysis and medicine respectively) do not view teaching soft skills or professionalism as part of their responsibilities and/ or do not know how to teach these skills. Further, considering the NZ public sector workplaces (e.g., commerce, auditing, policy and operations), Franken et al. (2022) found that managers with a formal hierarchical approach to their role typically saw employee resilience in traditional terms: fixed and trait-based and, perhaps conveniently, they could not see the pivotal role they could play in developing resilience (Franken et al., 2022). Meanwhile, there is an increasing body of evidence to suggest that resilience can be learned and needs to be taught, and that WIL supervisors should not expect students to inherently display this skill (Brewer et al., 2019; Ross et al., 2022; Sukup & Clayton, 2021).

Furthermore, WIL placements may provide an excellent opportunity for students to develop resilience. WIL placements fundamentally prepare students for the workplace and supports students to not only develop profession-specific skills and expertise, but importantly it facilitates the development of soft skills such as resilience which are equally vital for graduates to succeed in the workplace and in life (Bowles et al., 2019; Fleming et al., 2021; Low et al., 2019; Ross et al., 2022). WIL supervisors can be excellent coaches in that regard and can provide opportunities for guided reflections and discussions, perhaps drawing on strategies such as using a *resilience journal* as proposed by Lohner and Aprea (2021), or simply themed reflections and sharing narratives as suggested by Mate and Ryan (2015). It has been established that WIL is stressful and that WIL tests student resilience. It is perhaps timely to change the narrative and explicitly teach students resilience as part of the curriculum so that they can actively practice and further develop skills through WIL.

As mentioned previously, the study findings around the impacts of WIL on student mental health and wellbeing were concentrated around the first three SEM levels illustrated in Figure 5.1. Whilst not directly reported in the findings of this study, it can however be inferred that the higher level of the SEM has relevance through the trickle-down effect described by Lisnyj et al. (2021) in the context of financial assistance where some factors at higher levels (i.e., community and public policy) influence other factors at the lower levels of this model. For example, in NZ, postgraduate students are not eligible for a student allowance from the government. This may result in financial pressures for students, who may have little residual finances following their undergraduate studies. This subsequently increase the need to work part time while undertaking their studies and WIL, thereby introducing competing interests. This ultimately reduce student's time at the individual level, which can all collectively increase their stress and decrease their academic success in accordance with findings from Lisnyj et al. (2021). Other governmental financial assistance for students often relies on parental or partner income thresholds and assumes that students have parents or partners who can financially support them including through rising costs of living associated with the recent COVID-19 pandemic. This implication is of particular relevance for the dietetics programme, which is a master's degree with a substantial WIL component. As WIL is well known to carry additional financial burden for students, dietetic students face a twofold financial setback.

Monetary pressures and the resulting impact on student mental health and wellbeing during WIL were significant concerns raised by the supervisors in this study and corroborated by other authors (Grant-Smith & McDonald, 2016; Lisnyj et al., 2021; Patten & Vaterlaus, 2021).

Another factor at the higher policy level of the SEM, which was not specifically identified in the study findings but is expected to have a significant impact on WIL student mental health and wellbeing, is recent legislation. Under the Education and Training Act 2020, the New Zealand Ministry of Education released the Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021, which came into effect in January 2022. The new Code sets out the requirements that education providers must meet to support the wellbeing and safety of their learners, including 'promoting physical and mental health awareness' as well as 'proactive monitoring and responsive wellbeing and safety practices' (Ministry of Education, 2021). While too early to see tangible effects, this is predicted to positively impact WIL student mental health and wellbeing in New Zealand in future, and will likely also have a trickle-down effect across a range of factors at the lower levels of the SEM. Under the Code, tertiary education providers should be helping students to be safe, physically, and mentally; respected and accepted for who they are; supported in their learning and wellbeing; connected with their social and cultural networks; and able to have their say in decisions about services (Ministry of Education, 2021). The code has twelve outcomes relevant to universities. Four of the twelve outcomes of the code are especially relevant in the context of this current study: outcomes 1 and 2 focussing on education providers taking a whole of organisation approach to learner wellbeing and safety, and that learner voice is embedded into the organisation. Outcomes 3 and 4 focussing on wellbeing and safety practices for all tertiary providers and relate to physical and digital learning environments, including all workplace-based settings (Ministry of Education, 2021). None of the supervisors in this study expressed awareness around this new legislation, but there were no questions either in the online questionnaire or interviews that specifically asked about their awareness of the code of practice. Further while the code was released in 2021, it only came into effect in 2022, and data collection for the study was completed in 2021. The author however suspects that most WIL supervisors are unaware of the code based on anecdotal discussions with workplace coordinators and perceptions that it is mainly intended for universities, despite workplace-based settings being included in the code.

5.3 TRAINING TO SUPPORT WIL STUDENT MENTAL HEALTH/WELLBEING

5.3.1 *Limited formal mental health training*

Study findings indicate that most supervisors were neither confident in recognising signs of declining mental health nor in supporting struggling students. No association between supervisory experience or dietetics experience and confidence is important to note as it means that no matter how experienced supervisors are, they are still not confident. Further, the finding that awareness of mental health is not associated with confidence in supporting (only recognising) students is also important. In addition, it was found that most supervisors did not have any formal mental health training, which would explain their low levels of confidence. The lack of confidence and training conveyed by WIL supervisors in supporting mentally struggling students is however not unique to dietetics or NZ. Findings were similar for dietetics WIL supervisors of students at Deakin University in Australia (Margerison et al., 2019). In addition, while Hughes et al. (2018) focussed on academic supervisors, of which they captured a wide range across England, their findings were similar in that the academics felt that they were not equipped or supported to respond to student mental health problems. Most participants had little or no training either in mental health or how to support students generally (Hughes et al., 2018). Subsequently, in a study by Hughes and Byrom (2019), academic supervisors expressed concerns around placements in particular, identifying that time spent outside of the traditional university environment on placement was highlighted as potentially problematic, both in terms of the additional stresses it can place on students and the fact that responding to student mental illness can be more difficult when they are on placement. This highlights the critical role that WIL supervisors have in supporting the mental health and wellbeing of students during their placement.

Findings around WIL supervisors' lack of confidence and training are concerning when it is known that they are the students' main support during their placement and play a key role in facilitating skills transfer and development (Fleming et al., 2021). Furthermore, the role of a WIL supervisor is one that moves beyond training students on how to complete tasks, to helping them develop the higher order capabilities (such as emotional intelligence, creativity and leadership) expected of a graduate needing to navigate the changing world-of-work and to prepare for future work environments (Fleming et al., 2021; Oliver, 2015). Many authors agree that to be future-ready, students need to be flexible, proactive, open to uncertainty,

resilient, ethical, lifelong and self-managing learners who are able to cope with and stimulate change (Bowles et al., 2019; Geertshuis & Lewis, 2020; Hirschi, 2018).

Cage et al. (2021) made a strong recommendation for ensuring that academic staff are appropriately trained to hold conversations about student mental health, as well as ensuring academic staff can signpost students on to high-quality mental health services within their university. This can be extrapolated for WIL supervisors and their workplaces, to support a coordinated approach in supporting student mental health and wellbeing, ensuring students are able to access help where required. It was interesting to note that nearly all WIL supervisors in this study considered the workplace counselling supports available for staff, but either commented that students could not access these services, or were unsure if the services were accessible to WIL students. A possible explanation for this finding could be that supervisors may not have student mental health and wellbeing, or at least relevant strategies or services, at the front of their mind. This potentially also indicates a lack of preparation by the workplace, or limited involvement of supervisors and subsequently, a lesser sense of responsibility for their students' mental health and wellbeing.

Another notable finding was that hospital dietitians expressed a desire to know what services and information they could access for free to support their own mental health and wellbeing. This comment was made by one of the WIL supervisors who had recently undertaken a project within their workplace looking at the mental health of their dietitian colleagues. Interestingly, a couple of WIL supervisors did allude to their own mental health in this study, speaking to the toll on their mental health from supporting a struggling student or having to host a student against their wishes or their perceived ability, for example, if imposed by their workplace or immediate team. This implication suggests an interest in and perceived importance of mental health and wellbeing by supervisors but perhaps again a lack of preparation by the workplace or visible support mechanisms for their staff and in turn, students. While an unexpected finding and not a focus of this study, it is relevant to consider supervisor mental health and wellbeing in relation to potentially affecting the support that students are able to receive. Poor staff wellbeing was identified as having a negative impact upon the ability to provide effective pastoral support (Brewster et al., 2022). This is also in alignment with what other authors have discovered or suggested, i.e., that placing the

responsibility of supporting student mental health on staff also poses a substantial risk to these individuals' own mental health, leaving new supervisors particularly vulnerable (Brewster et al., 2022; Hughes et al., 2018; Kinman & Jones, 2008). In addition, substantive emotional costs have been identified in academics supporting students with mental health difficulties, including; distress in response to the student disclosure, apprehension about becoming involved, anxiety about their ability to provide support, being emotionally drained and fearing for the student's safety (Gulliver et al., 2018; Hughes & Byrom, 2019; McAllister et al., 2014).

Hughes et al. (2018) identified that training appeared as a contentious subject for the academic supervisors they surveyed, with some participants feeling they did not have the time to engage and others expressing concern that additional training may increase their responsibilities in this area. Contrary to those findings, the WIL supervisors in this study showed an appetite for further training, as illustrated by the quote below, and acknowledged the importance of a joint approach between the university and the workplace.

Thanks for contacting me. Completing the survey has made me aware of some of the gaps in my knowledge around supporting students with mental health concerns (and supporting them in general). Perhaps some supervisor training could be offered around this? Supervisor 07

Of the WIL supervisors who had undertaken mental health training, it appeared they did feel more knowledgeable, skilled and confident in supporting students who are mentally struggling. Due to the very small sample size, it was difficult to form any strong interpretation or conclusion. However, Margerison et al. (2019) found that around a third of their dietetics WIL supervisors had engaged in mental health training and as a result, showed increased confidence in supporting students with mental health struggles, although this was not statistically significant. While there is emerging research indicating positive outcomes of implementing resilience and wellbeing interventions for student dietitians in preparation for WIL (Ross et al., 2022), there are not studies to date that have considered mental health training for dietetics WIL supervisors.

However, a recent Australian study tested an online mental health training programme for physician supervisors and found that it was not only feasible but also associated with improved confidence and behaviour to support the mental health needs of the trainees they supervised (Gayed et al., 2021). It was also encouraging to note that workplace interventions aimed at supervisors and managers were found effective in inducing supportive behaviours from supervisors (Akhanemhe et al., 2021; van Hees et al., 2022). Even a brief active listening skills training package were associated with significant improvements in the healthcare manager's confidence in recognising, speaking with and supporting health care workers with suspected mental health conditions (Akhanemhe et al., 2021).

It can therefore be assumed that mental health training for dietetics WIL supervisors would be an effective strategy to not only support the mental health and wellbeing of students, but also their own. As Brewster et al. (2022) argue, to complement existing socio-ecological and systems theory, universities could optimise both staff and student wellbeing by taking a 'whole university' approach to mental health, shifting from the predominantly reactive mental health culture to more proactive, preventative, and strategic changes across the whole university system. It can be proposed that this extends to strengthening partnership with workplaces including targeted strategies for WIL supervisors who play a key role in preparing university students for the workforce. Tailored solutions developed in conjunction with key stakeholders including WIL supervisors, university staff and students would likely be most effective.

As a starting point, mental health training such as MHFA (Mental Health First Aid) could be encouraged, if not made compulsory. Such training would also support WIL supervisors who expressed ambiguity around providing support to mentally struggling students in the context of keeping within their scope of practice as the training is for anyone and everyone. It equips individuals and communities with the knowledge, skills and confidence needed to support someone with a mental health problem, providing guidance for when to engage professional help and what to do during a mental health crisis (MHFA International, 2022).

5.4 SUPPORTING WIL STUDENT MENTAL HEALTH/WELLBEING

Despite expressing low confidence in supporting WIL student mental health and wellbeing, the supervisors in this study readily offered approaches which they used with their students or thought might be helpful.

5.4.1 *Sense of belonging*

At the heart of the various approaches that supervisors described was establishing positive student-supervisor relationships and the creation of a sense of belonging in the students undertaking WIL placements within their workplace. Having a warm, welcoming, and open approach was consistently found by the WIL supervisors to enable trusting student-supervisor relationships, subsequently supporting student mental health and wellbeing, and creating a safe space for discussions around struggles. This current study further supports the views that a sense of belonging among students is essential for student mental health and wellbeing and that supervisors have a key role in facilitating this, as suggested by several other authors (Fleming & Haigh, 2018; Levett-Jones & Lathlean, 2008; McBeath et al., 2017; Rowe et al., 2021).

While the supervisors in this current study emphasised the value of creating a strong sense of belonging in their students during WIL, they also conveyed that this was not always implemented with subsequent negative impact on student mental health and wellbeing. Some supervisors talked about students being stigmatised and not included within the team, echoing Dart et al. (2022) who described exclusive mealtime practices and distancing cultural norms in some dietetic workplaces in Australia and NZ. For example, supervisors not wanting to eat lunch with their students resulting in disruption of identity development and professional socialisation for students. Another interesting finding, which also aligned with that of Dart et al. (2022), was geographical differences whereby rural or regional sites were noticeably more inclusive with supervisors embracing students within their team, whereas students were often made to feel like outsiders in large metropolitan hospitals.

5.4.2 Supervisors as ‘Super-mentors’

Along with creating a sense of belonging among the students they supervise, WIL supervisors emphasised the importance of establishing positive and supportive student-supervisor relationships. In accordance with findings reported by other authors (Dart et al., 2022; Jang et al., 2020; Seponski & Jordan, 2018), many supervisors cited relationship disruptions due to challenging power dynamics and rigid hierarchal structures within dietetics and health professions generally, recognising that the supervisory relationship is one with a power imbalance. Supervisors described less autocratic and more holistic and empowering approaches to support student mental health and wellbeing during WIL. They highlighted the value of shared experiences, delivering feedback and framing challenges with a lifelong learning lens and an encouraging attitude towards their future colleagues. These approaches are consistent with mentoring and coaching, thus echoing other authors advocating for a mentoring style of supervision (Evans, 2019; Hardie et al., 2018; Martin et al., 2019).

The evolution of supervisors into ‘Super-mentors’ seems very appropriate from the present findings and in accordance with the work of Martin et al. (2019). The authors characterise ‘Super-mentors’ as being aware of their duty of care and the importance of being engaged in the supervision process, mentoring students and helping them to make the most of the experience. In addition to familiarity with WIL from personal experience, and a sense of giving back to their industry, ‘Super-mentors’ are characterised by their appreciation of opportunities they themselves received, e.g., mentoring, management, and leadership skills, in the process of providing opportunities for students (Martin et al., 2019).

5.4.3 Cross-cultural supervision

Concerns around the cultural safety of Indigenous and minority students during WIL, and the subsequent impact on their mental health and wellbeing emerged from the questionnaire responses. This sparked further exploration of the impact of culture during the interviews. Cultural misunderstanding was identified as an important barrier to positive and supportive supervisory relationships, also eroding any sense of belonging. An interesting finding was that while supervisors seemed to have a sense that culture may influence supervisory relationships, it was apparent that many had not considered this previously, also conveying that they treated all students the same.

A possible explanation may be that most student dietitians and their supervisors tend to identify with the dominant NZ European and middle-class culture. However, the Massey University cohort of student dietitians has become increasingly diverse over the past years, suggesting that supervisors may have blind spots around cross-cultural communication and supervisory relationships. Those who were articulate around cultural influences were generally supervisors who themselves identified with a diverse background and therefore are perceptive of differences in student presentations or communication within contexts of cultural norms or upbringing, as well as observant of students being treated differently. Some authors explicitly identified experiences of micro-aggression, bullying, harassment and racism during WIL, with clear discrimination towards Indigenous students and those from non-English-speaking backgrounds (Jang et al., 2020; Minton & Birks, 2019; Minton et al., 2018; Pallas et al., 2022).

In contrast, the supervisors in this current study were not so overt in their accounts. It is however worth noting that the other studies reported first-hand experiences by students whereas this current study considers supervisor perspectives, which may be much more restrained. Considering dietetics in particular, within both Australian and NZ contexts, as well as perspectives from students and university and workplace supervisors, Dart et al. (2022) did identify challenges around current cultural norms and microcultures of dietetics citing issues of conformity and homogeneity, competition, criticism and bullying. Further, Lisnyj et al. (2021) captured an important finding in their study of Canadian university students around the lack of representation on campus possibly diminishing a student's sense of belonging. The same could be surmised for students in WIL settings. The findings of this current study undeniably support existing calls for culturally responsive supervision (Jang et al., 2020; Pallas et al., 2022; Seponski & Jordan, 2018), which is especially relevant in growing a diverse workforce and supporting student mental health and wellbeing.

5.4.4 “Less is more”

Findings from this study confirmed anecdotal concerns from the dietetics educators at Massey University around the large number of supervisors involved in the WIL experiences of our students. The educators have attempted to mitigate this issue from the outset by implementing external supervision with one consistent university educator each week during placements. This approach aligns with findings from other studies that external supervision can be valuable in offering opportunities to explore placement issues safely, away from busy workplaces and focused on developing students’ practice and practice framework (Zuchowski, 2013, 2015). While this external supervision process is of benefit, ongoing issues have been observed especially in the context of student mental health and wellbeing.

A recent review of WIL timetables identified that some students may be with as many as eight to ten supervisors in just the one week. Further, some of the supervisors in this study mentioned only spending one to two days, sometimes less, with a student because of shared supervision models among their team. Therefore, surmising that they may not notice changes in behaviour suggesting mental health decline especially when they may not even have an awareness of what a student’s typical behaviour was or how they usually present due to the limited time spent together. In addition, supervisors are likely to have a diminished sense of responsibility when they encounter a struggling student, expecting someone else to provide support. Similarly, it would be unrealistic to expect students to feel comfortable opening up to their supervisors about mental health struggles if they only have short encounters with them. These factors could explain the study findings around few supervisors reporting that their students had spoken to them about personal problems affecting their performance or disclosed that their mental health was suffering. This outcome was despite most supervisors expressing that their students approached them or other members of the team with a wide range of questions relating to WIL and acted like they were part of their team.

While such shared supervision models are historical in the context of dietetics training in New Zealand, they are still embedded in the team culture of many hospital dietitians. However, such approaches are very disruptive to the establishment of effective student-supervisor relationships or the creation of a sense of belonging, and arguably culturally unsafe when taking into consideration the significance of connection and relationships among Indigenous

and culturally diverse groups. In addition, one could question the effectiveness of the WIL training overall with such unstructured support from supervisors who are just “passing by” and therefore not actively engaged in training. This could similarly negatively influence the student experience, and subsequently mental health and wellbeing. Therefore, having the same supervisor for most or all of the placement time is another important approach to support student mental health and wellbeing. This approach supports the findings from Blomberg et al. (2014) whose statistical analyses showed that nursing students following patients and with supervisors varying between shifts were more likely to have a greater level of stress than students who had the same supervisor all the time, with results also suggesting that having more than one supervisor increased stress.

Another interesting finding was the mixed responses from supervisors in terms of the preparedness of the students they supervise. Some reported that students were well prepared for WIL and others advocated for better preparation at the university level, implying that students were not as well prepared. Yet, the students all receive the same preparation. Of course, as with any content, the level of retention is expected to vary among students. However, it could be that the lack of consistency in supervisors, with subsequent disruptions in sense of belonging and student-supervisor relationship, as well as students constantly having to adapt to new supervision styles and expectations, all have a part to play in how well-prepared students are perceived to be.

6. CONCLUSIONS

6.1 STUDY FINDINGS

This mixed methods study explored workplace supervisors' perceptions of student mental health and wellbeing during their WIL programme and their role in supporting students in this context. The following provides a brief summary of the findings related to each of the research questions.

Workplace supervisors' perceptions of their mental health and wellbeing during their own WIL experiences

There was an overpowering sense among supervisors that high stress, acute anxiety, and feeling overwhelmed were commonplace when considering both their own experience as dietetics students and their WIL students. Supervisors often drew on their own WIL experience as students to lead into the conversation, potentially transferring their own experiences and biases to the reality of their student(s).

Workplace supervisors' perceptions of student mental health and wellbeing during WIL experiences

It was evident that supervisors believed that student mental health and wellbeing affected their performance during WIL. Much variability was identified by supervisors, with some students deemed to mentally thrive during WIL while others mentally struggle. However, negative experiences were prominent, with high levels of stress, anxiety, pressure, and feelings of being overwhelmed found to often be encountered among the dietetic students they supervise. While this was felt to be exacerbated by the COVID-19 pandemic, declining mental health and resilience in students had been noticed even pre-pandemic.

Workplace supervisors' perceptions of the impacts of the WIL experience on student mental health and wellbeing

Findings around supervisor perceptions of impacts on student mental health and wellbeing during WIL aligned with the SEM, identifying factors across individual, relationships and organisational levels. The WIL experience itself was found to significantly impact student mental health and wellbeing.

Various challenges for WIL students were described such as having to adjust to the acute, fast paced and emotionally confronting nature of the hospital environment (also a foreign environment for many students), as well as a multitude of supervisors (often with different styles and expectations). Students felt pressure (generally self-imposed) to perform very well and demonstrate job-worthiness. They were often juggling busy workloads in particular academic requirements associated with the research thesis and managing the financial burden of being on placement especially when travelling to regional hospitals. In addition, workplace supervisors described tense and untrusting student-supervisor relationships, involving communication breakdown or cultural miscommunication (between individuals, across the workplace and even wider profession). There were also impacts outside WIL such as individual student situations, family demands and major life events or upheavals. A persistent recount remained students' differing coping abilities despite faced with similar pressures with some experiencing significant adverse impact on performance as a result.

Workplace supervisors' perceptions of their role in supporting student mental health and wellbeing

Interestingly, supervisors reported differing abilities themselves when it came to supporting student mental health and wellbeing. However, the majority expressed low confidence in recognising signs of declining mental health, e.g., anxiety and depression, as well as supporting students who were struggling with their mental health. It was however encouraging that supervisors generally felt that they had a role to play in supporting WIL student mental health and wellbeing, and advocated for a joint approach by the university and the workplace.

Workplace supervisors' knowledge of training to support WIL student mental health and wellbeing

Most supervisors had no training in mental health, but many conveyed new realisations and increased awareness because of their participation in the study, subsequently showing interest for training and guidance. Those who had mental health training, did express higher confidence and skills in supporting student mental health and wellbeing. The supervisors in this study were very intent on drawing on their own experiences, even if negative, to be more attentive and supportive supervisors.

This study offers an opportunity to reflect on how dietetic students, our future colleagues, can be better supported during WIL. It highlights a need to assist the training of workplace supervisors to support student mental health and wellbeing during WIL.

Workplace supervisors' knowledge of approaches used to support WIL student health and wellbeing

Key approaches were described by supervisors to support student health and wellbeing during WIL: the creation of a sense of belonging within the workplace, mentoring / coaching supervisory styles, culturally responsive supervision and having dedicated or consistent supervisors. Strategies that help increase supervisor awareness and confidence in supporting students experiencing mental health struggles are important as they may assist student wellbeing and subsequently improve student performance during WIL. This approach is especially relevant with the new code of practice for the pastoral care of tertiary and international learners in New Zealand that came into effect in January 2022. The code places increased responsibilities on tertiary providers to better support learners' safety and wellbeing, physically and mentally, across all study settings including on campus, online, offshore and/or in workplace-based settings (Ministry of Education, 2021).

In summary, supporting both WIL students and their workplace supervisors is important. Consideration should be given to both groups regarding avenues of support. Ultimately the call is for a more proactive approach from both the University and workplaces around managing student mental health and wellbeing, not only mitigating adverse impacts on performance but providing opportunities for students to flourish professionally and personally, learning to tackle adversities with the right tools.

6.1.1 Study strengths

To the best of the author's knowledge, this is the first study in New Zealand to explore Dietetics WIL supervisor perceptions and more generally, WIL supervisor perspectives around student mental health and wellbeing when on placement at WIL sites. The findings therefore provide unique insights into impacts associated with the WIL environment on mental health and wellbeing, and subsequently ways to better support students during WIL.

Employing a mixed methods approach using an easy to administer online questionnaire and in-depth interviews allowed for a deep dive into WIL supervisors' perceptions and experiences. Interview findings corroborated and deepened questionnaire findings, supporting validation. The main researcher was also able to provide pertinent context as she is embedded in the WIL coordination process, with extensive experience working with both WIL supervisors and students.

The potential for bias was considered and having a research dietitian outside of the Master of Dietetics programme undertake the interviews, as well as blinding the main researcher to the participants, reduced the possibility of bias. In addition, as the interviewer was unknown to the participants, she presented an impartial figure. This enhanced supervisor openness, allowing them to feel comfortable to divulge negative feelings and perceptions in the knowledge that responses would also be anonymised and that there would be no need to maintain any ongoing relationship with the interviewer unlike any other educator within the Dietetics programme.

6.1.2 Study limitations

While some supervisors would have been involved in supervising dietetics students from other universities, it is important to note that this study focused on supervisors involved in the WIL programme for dietetics students at Massey University. It is however hoped that findings from this research will transfer to other dietetic and WIL programmes. There was a participation bias towards hospital and metropolitan Auckland sites, which was reflective of the typical workplaces currently engaged in dietetics placement. A response rate of 60% (eighty participants) was achieved from the questionnaire, but the study was limited by the relatively small interview sample of eleven participants, although in alignment with the typical nature of qualitative research. Interviews were conducted during a COVID-19 lockdown which may have impacted the response rate. However, it appeared that data saturation was reached with eleven participants but data from a few more participants would have provided certitude. Another limitation was the quality of some of the recordings, which was affected by interviewer and participants occasionally having to make do with inconsistent phone and internet connections. While a few transcripts had parts of conversations missing, subsequently impacting on the completeness of the data analysis, most of the discussions

were captured. Data collection during the COVID-19 pandemic could have also skewed supervisor perceptions, naturally accentuating mental health struggles. It is also relevant to acknowledge possible recruitment bias, with WIL supervisors more likely to have participated in the research if they had an interest in mental health, had struggled themselves as a student during WIL and/or had strong connections with the university.

6.1.3 Future research

This current study captured the perceptions of many dietetics WIL supervisors, but recruitment was contained to only longstanding WIL sites affiliated with Massey University, and subsequently mostly hospitals in parts of the North Island, hence limiting the generalisability of the findings. Having more perspectives from regional sites would also have helped better identify and explore the influence of geographical location on WIL student mental health and wellbeing together with supervisor support. It is recommended that future research:

- extends to supervisors across the whole country,
- captures more supervisors working with dietetic students outside of hospital settings to help compare findings and consider potentially different needs across geographical locations and practice contexts.

This study did not consider perceptions around student mental health and wellbeing in the context of pressures experienced when dietetic students are not undertaking WIL.

- Future research could consider what different stressors exist between WIL and non-WIL periods.

It is hoped that this study is transferrable to other professions.

- Future research considering WIL supervisors from other disciplines is also recommended.

Interviews provided insightful details, with the use of tele and video conference (e.g., Zoom) useful strategies to enable the research to continue despite COVID-19 restrictions. However,

while these communication aids may still be of benefit for WIL supervisors located in distant regions,

- It is suggested that in future research, conducting interviews in-person would be best given the nature of the discussions.

Findings from this study were slanted towards negative associations between WIL and mental health but a recurring element remained variability among students. While all students have similar pressures during WIL, different students given their circumstance will react positively or negatively. It is hoped that given more support, students will have a better WIL experience.

- More in-depth exploration of the protective factors which allow students to react positively in the face of WIL pressures is warranted in future research to support more proactive approaches and preventative strategies.

Importantly, avenues of support for both supervisors and students need further consideration, with attention given to both student and supervisor voices to ensure that this support is accessible, acceptable, and effective.

- Future research looking specifically at implementation and evaluation of appropriate training for supervisors and students alike is most pertinent.
- Finally, an unexpected finding from this study was around the state of supervisors' own mental health and wellbeing which emerged as a probable influence on students; therefore, it is recommended that future research investigates this further.

6.1.4 Implications for practice

WIL is inherently highly stressful (Gillett-Swan & Grant-Smith, 2018; McBeath et al., 2017) but plays a fundamental role in preparing the dietitians of the future. In growing a profession ready to address future challenges and opportunities, it has never been more important to look after the mental health and wellbeing of budding dietitians, together with instilling resilience. This study supports the perception that WIL tests the mental health and resilience of students (Drysdale et al., 2016; Grant-Smith et al., 2017; Johnstone et al., 2016; McAllister & McKinnon, 2009), but proposes that WIL presents a perfect opportunity for students to practice and build resilience, adaptability and emotional intelligence, with WIL supervisors

playing a key role in empowering students. However, to support their students to develop these important life skills, WIL supervisors need to understand the capacity they have in this space. They need to have the confidence and ability to move beyond discipline-specific training to meaningfully engage with students, coaching them to sustain professional and personal growth (Hardie et al., 2018; Martin et al., 2019).

There are already tools available to supervisors, such as mental health first aid training (Mental Health First Aid Australia, 2023b; Te Pou, 2023) and resilience training (Blueprint NZ, 2021; Curtin University, 2023), but this study revealed that supervisors may not be aware of those supports. Very few had received mental health training, but supervisors showed a strong appetite for professional development in this context. However, some supervisors may not be inclined to take responsibility and put effort into upskilling if working within shared supervision models where they only have short interactions with students. This suggests a need for change within the workplace at the organisational level. Many supervisors did however share a range of useful strategies and tips which they have successfully employed in their WIL supervision practice and which also align with the literature. These have been summarised in Appendix G, alongside strategies extracted from the literature and employed by the author in their own supervision practice, with the view to develop a 'Good Practice Guide' resource for WIL supervisors.

While it is hoped that the 'Good Practice Guide' will be utilised by supervisors, not only in dietetics but also in other health disciplines, its focus is on the individual supervisor and workplace coordinator. However, it is important to consider systemic issues that need addressing, e.g., the sustainability of the current model and funding (or lack of) for dietetic placements. Further, action is required at all WIL stakeholder levels, particularly at the organisation level, e.g. universities and accrediting bodies through a collaborative and coordinated approach. This process is especially relevant in light of the various risks to stakeholders identified (Fleming & Hay, 2021, 2022; Ministry of Education, 2021) if student mental health and wellbeing are not prioritised.

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APPENDICES

APPENDIX A: LOW RISK ETHICS NOTIFICATION

From: Human Ethics <gmhumeth@massey.ac.nz>
Sent: Tuesday, May 25, 2021 1:23 PM
Subject: Human Ethics Notification - 4000024388

HoU Review Group
A/Pro Andrew Foskett

Ethics Notification Number: 4000024388

Title: Exploring the impact of Work-Integrated Learning on the mental health of dietetic students: supervisor perspectives

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported 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 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, please login to the RIMS system, and under the Reporting section, View Reports you will find a link to run the LR Report.

Yours sincerely

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

APPENDIX B: SUMMARY OF KEY SURVEY QUESTIONNAIRE ADAPTATIONS (Phase 1)

Adaptation	Description and purpose
Title and Introduction	<ul style="list-style-type: none"> • Changed some wording to emphasise the exploratory nature to the study and highlight the work-integrated learning context. • Added sentence to inform respondents from the get-go that there will be the opportunity to provide comments at the end.
Section A: Information Sheet and Consent	<ul style="list-style-type: none"> • Changed wording for NZ context, incorporating the specific information sheet and consent.
Section B: About Mental Health	<ul style="list-style-type: none"> • Replaced the first question which directly asked about a diagnosis of a mental health condition with one asking about personal or lived experience with mental health conditions (own, close friends or family members), also moving this question further down. This was felt to be less confronting. • A general rating of awareness around mental health and wellbeing was added to gauge current awareness and ease the respondent into the survey questions. • Added a qualitative question to explore initial thoughts about student mental health and wellbeing in the context of placements. • Added a question about perceived change in students' mental health and wellbeing followed by qualitative sub-questions around type of change and reason for change. This was initially intended to relate to COVID-19, but the question was left non-specific to capture any perceived change. • Added a sub-question to find out about the type of mental health training received and if the training helped improve knowledge, awareness, skills, confidence and practice. • Added a question around confidence recognising signs of mental health conditions in addition to existing questions around confidence supporting students as not all students self-disclose.
Section C: About Stressors	<ul style="list-style-type: none"> • No changes or additions made
Section D: Dietetics and Supervisory Experience	<ul style="list-style-type: none"> • Added 'coordinator' and 'manager' as options, in addition to supervisor to reflect the different types of supervisors in NZ • Added the area of dietetics practice the supervisor works in to help identify if differences exist across areas • Removed monetary motivation i.e., draw to win a \$50 gift voucher to favour responses based on intrinsic motivation and work within a limited research budget.

APPENDIX C: ONLINE QUESTIONNAIRE (Phase 1)

BACKGROUND TO THE RESEARCH

Please help us understand the impact of dietetic placements on the mental health of dietetic students. Please note that your identity will remain anonymous. An independent researcher, unconnected with the dietetics course, will administer the questionnaires and provide non-identifiable data sets to the principal researchers. The University coordinators/lecturers will not know whether you have chosen to participate. Please answer each question by **choosing** the most suitable option. For free text answers, please type your answer in the space provided. If you are unsure about how to answer a question, please choose the answer that is **closest** to how you feel. You can also provide further comments at the end of the survey.

SECTION A: ABOUT MENTAL HEALTH

This section is about your knowledge, experience and confidence around mental health and wellbeing, and when dealing with mental health conditions.

QA1. How would you rate your awareness around mental health and wellbeing?

Not at all aware Somewhat aware Fairly aware Very aware

QA2. Tell us your initial thoughts about student mental health and wellbeing during dietetic placements.

QA3. Thinking about all the students you have supervised up to now, have you noticed a change in students mental health and wellbeing?

Yes O₁
No O₂

If yes,

a) how do you think this has changed?

.....

b) why do you think this has changed?

.....

QA4. Do you have personal or lived experience with mental health conditions (own, close friends or family members)?

Yes O₁
No O₂

QA5. Have you had any formal training on managing mental health conditions?

Yes O₁
No O₂

If yes,

What type of training? _____

Approximately how many hours was your training? _____

Did the training (select all that applies)

O₁ increase your knowledge around managing mental health conditions?

O₂ increase your awareness around managing mental health conditions?

O₃ increase your skills in managing mental health conditions?

O₄ increase your confidence in managing mental health conditions?

O₅ significantly improve your practice around managing mental health conditions?

O₆ have little to no impact on your practice around managing mental health conditions?

QA6. How would you rate your confidence in recognising signs of mental health conditions such as anxiety and depression?

Not confident at all Somewhat confident Fairly confident Very confident

QA7. How would you rate your confidence in supporting a student whom you are supervising who:

	Not confident at all	Somewhat confident	Fairly confident	Very confident
a. Has expressed feelings of anxiety to you	<input type="radio"/> O ₁	<input type="radio"/> O ₂	<input type="radio"/> O ₃	<input type="radio"/> O ₄
b. Has confided to you that they have depression	<input type="radio"/> O ₁	<input type="radio"/> O ₂	<input type="radio"/> O ₃	<input type="radio"/> O ₄
c. Is having a panic attack	<input type="radio"/> O ₁	<input type="radio"/> O ₂	<input type="radio"/> O ₃	<input type="radio"/> O ₄

SECTION B: ABOUT STRESSORS

The following section is about different stressors in the placement environment.

QB1. How much do you agree or disagree with the following statements about your most recent experience with dietetic students? (Please choose one response in each row)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. My student(s) act like part of our team	O ₁	O ₂	O ₃	O ₄	O ₅
b. My student(s) approach me with a wide range of questions	O ₁	O ₂	O ₃	O ₄	O ₅
c. My student(s) approach other members of the team with questions	O ₁	O ₂	O ₃	O ₄	O ₅
d. My student(s) have spoken to me about personal problems affecting their performance	O ₁	O ₂	O ₃	O ₄	O ₅
e. My expectations of the student(s) are reasonable	O ₁	O ₂	O ₃	O ₄	O ₅
f. My student(s) were adequately prepared for my placement	O ₁	O ₂	O ₃	O ₄	O ₅
g. My student(s) brought the knowledge necessary to succeed	O ₁	O ₂	O ₃	O ₄	O ₅
h. My student(s) appear nervous when I give him/her/them feedback	O ₁	O ₂	O ₃	O ₄	O ₅
i. I think my student(s) struggle to balance other academic work, family commitments, work, etc. when they're on placement	O ₁	O ₂	O ₃	O ₄	O ₅
j. I think my student(s) find finances are tight while on placement	O ₁	O ₂	O ₃	O ₄	O ₅
k. My student(s) have strong time management skills	O ₁	O ₂	O ₃	O ₄	O ₅

SECTION C: DIETETIC AND SUPERVISORY EXPERIENCE

This section is about your supervisory experience.

QC1. Are you a supervisor, coordinator, or manager?

Supervisor	O ₁
Clinical/Placement Coordinator	O ₂
Manager/ Team Leader	O ₃
Other, please identify	O ₄ _____

QC 2. Which area of dietetic practice do you work in?

- O₁ Clinical / Medical nutrition therapy
- O₂ Food Service Management
- O₃ Public Health Nutrition
- O₄ Other, please identify -----

QC3. How long have you been a dietitian?

- | | | |
|---|-----------------------|----------------|
| <1 year | <input type="radio"/> | O ₁ |
| 1-3 years | <input type="radio"/> | O ₂ |
| 3-5 years | <input type="radio"/> | O ₃ |
| 5-10 years | <input type="radio"/> | O ₄ |
| 10-20 years | <input type="radio"/> | O ₅ |
| >20 years | <input type="radio"/> | O ₆ |
| I am not a dietitian <input type="radio"/> O ₇ | | |

QC4. How long have you supervised dietetic students?

- | | | |
|-------------|-----------------------|----------------|
| <1 year | <input type="radio"/> | O ₁ |
| 1-3 years | <input type="radio"/> | O ₂ |
| 3-5 years | <input type="radio"/> | O ₃ |
| 5-10 years | <input type="radio"/> | O ₄ |
| 10-20 years | <input type="radio"/> | O ₅ |
| >20 years | <input type="radio"/> | O ₆ |

QC5. When you think back to your own dietetic placement or workplace internship experience, do you think of it as a stressful time?

- | | | |
|-----|-----------------------|----------------|
| Yes | <input type="radio"/> | O ₁ |
| No | <input type="radio"/> | O ₂ |

QC6. How many dietetic students have you supervised in the past year?

QC7. During a placement with you, have you ever had a student disclose to you that they have a mental health problem or that their mental health is suffering?

- | | | |
|-----|-----------------------|----------------|
| Yes | <input type="radio"/> | O ₁ |
| No | <input type="radio"/> | O ₂ |

If so, how many? _____

QC8. Would you be interested in participating in a one-on-one interview on this same topic? The interview will be conducted in-person at a location of your choice, or using video conferencing, by a researcher who is not involved in the dietetic training programme.

a. Yes, please contact me to set up a time O₁ (Go to QC9)

b. No, I do not wish to participate O₂ (Finish questionnaire)

QC9. Thank you for expressing interest in participating in an interview. Please provide your name and the best way to contact you (phone or email). Note that any identifiable detail will be removed by the independent researcher before data sets are given to the other researchers. _____

Thank you for completing this survey. We sincerely appreciate your time and effort.

If you have any comments you would like to make about this research or the questionnaire, please do so below, they would be very welcome.

APPENDIX D: ONLINE QUESTIONNAIRE INFORMATION SHEET AND CONSENT

INFORMATION SHEET

Full Project Title:	Exploring the impact of Work-Integrated Learning (WIL) on the mental health of dietetic students: supervisor perspectives
Principal Researcher:	Reena Soniassy
Research Supervisors:	Professor Andy Martin, Associate Professor Rozanne Kruger

Information, background and purpose

A multi-university research project is currently underway across Australia and New Zealand to explore the mental health of dietetic students. Dietetic supervisors play a key role in the partnership between students, the workplace, and the University. The present study looks to provide insight into students' mental health during work-integrated learning (placement) from the supervisors' perspectives and to explore ways to support the mental health and wellbeing of students during their WIL experience.

Understanding what is required

You are invited to complete an online questionnaire which will take approximately 10-15 minutes to complete. Following completion of the online questionnaire, we will seek your interest in participating in an interview. The interview will be conducted individually, either in-person or through Zoom, based on your preference. The interviewer will be a researcher who is not involved in the dietetic training programme

Any information obtained in connection with this project will remain anonymous and confidential. Your participation in this project is entirely voluntary. Your decision to participate or not participate will in no way impact upon your current or future relationship with the research team or the Dietetics training programme. Please contact Andy Martin (a.j.martin@massey.ac.nz) if you have any questions.

Findings from this project will inform and improve mental health and wellbeing support for future students. The data collected will be presented in research publications in a way that will not allow you to be identified by third parties.

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

Ethics Notification Number: 4000024388

CONSENT

- I have read, and I understand the information sheet and give consent to participate in this survey
- I do not wish to participate (exit survey)

APPENDIX E: SUMMARY OF KEY INTERVIEW QUESTIONNAIRE ADAPTATIONS (Phase 2)

Adaptation	Description and purpose
Title and Introduction	<ul style="list-style-type: none"> • Changed some wording to emphasise the exploratory nature to the study and highlight the work-integrated learning context. • Widened the context to all dietetic students in New Zealand instead of just students within Massey University's dietetics programme.
Section A: Informed Consent	<ul style="list-style-type: none"> • Changed wording for NZ context, incorporating the specific information sheet and consent.
Section B: Supervisor Background and Experience	<ul style="list-style-type: none"> • Added an introductory sentence at the start to guide the participant to the topic of focus. • Added supervisor background to collect some demographic information, including cultural background, and to help ease participants into the interview by serving as icebreaker. • Added a series of probes for each question, also changing some Deakin interview questions to probes instead of main questions. This was to support the independent researcher in obtaining pertinent perspectives and explore these further. • Changed some wording to facilitate a more open questioning style.
Section C: Student Mental Health	<ul style="list-style-type: none"> • Added an introductory sentence at the start to guide the participant to the change in topic of focus. • Added a series of probes for each question, also changing some Deakin interview questions to probes instead of main questions. This was to support the independent researcher in obtaining pertinent perspectives and explore these further, as well as improve the flow of the interview. • Added a question and subsequent probes around cultural influences which emerged as an unexpected theme in the questionnaire and one that was important to explore further. • Changed some wording to better reflect the NZ context and facilitate a more open questioning style. • Added a question to help collate supervisor tips or strategies that they have found helpful, and which may also help other supervisors.
Section D: University Specific Feedback and Supports	<ul style="list-style-type: none"> • Added an introductory sentence at the start to guide the participant to the change in topic of focus. • Add a question to capture any experiences which relate to Massey University dietetic students in particular.
Section E: Conclusion	<ul style="list-style-type: none"> • Added an introductory sentence at the start to guide the participant to the end of the interview. • Changed some wording to facilitate a more open questioning style. • Removed monetary motivation to favour involvement based on intrinsic motivation and work within a limited research budget. Petrol vouchers were however considered to support in-person interviews, but these did not proceed due to COVID-19 restrictions.

APPENDIX F: INTERVIEW QUESTIONNAIRE (Phase 2)

SUPERVISOR INTERVIEW GUIDE

Exploring the impact of Work-Integrated Learning (WIL) on the mental health of dietetic students: supervisor perspectives

Thank you for taking the time to help us understand the impact of the placement experience on the mental health of dietetics students in New Zealand.

I would like to let you know that your identity will remain anonymous. The coordinator and lecturers of the Massey University Nutrition & Dietetics course will not know whether you have chosen to participate in this interview, and the researcher will only receive de-identified data sets.

If you feel uncomfortable answering any question, please let me know and we can skip that question.

SECTION A: INFORMED CONSENT

Before we start, I would like to confirm your consent for this interview.

QA1. Do you have any questions or concerns about the information sheet and consent form that were sent to you prior to this interview?

[participant to sign consent form if not done already]

QA2. Do you consent to the terms in the consent form and to this interview being audio recorded?

SECTION B: SUPERVISOR BACKGROUND & EXPERIENCE

This first section is about your background and experience as a supervisor.

QB1: Introductions: Can you tell me a little bit about yourself and your background as a supervisor?

[Probes: How long have you been a dietitian? Number of years' experience as a supervisor? Workplace setting (hospital/ food service/ public health), Cultural background (from NZ/overseas)]

QB2. Tell me about your own placement experience. Does your own placement experience affect how you supervise students on placement? How so?

[Probes: Stressful experience: what made it stressful? How does this translate to your supervision style now? What (other) influences affect how you supervise students?]

[Probes: NOT stressful experience: What influences how you supervise students on placement?]

SECTION C: STUDENT MENTAL HEALTH

This next section focusses on student mental health.

QC1. Considering the students you have supervised, what is your perception of how their mental health impacted their placement experience?

[Probes: impact on student enjoyment/ learning / performance; if no direct experience- how do you **think** it impacts on their placement experience? ; Does student mental health and wellbeing generally change from the beginning to completion of placement? If so, how and why do you think this change occurs – especially if worsening mental health]

QC2. Which factors do you believe impact student mental health during their WIL placement?

[Probes: impacts can be positive and/or negative; internal (students themselves), external (relationships e.g., family/ friends; living situation; finances; workplace (supervisors, caseload); university (placement assessments, thesis)]

QC3. a) In your opinion, what cultural differences, if any, may have an influence on student mental health during placement? [Probes: From what you have experienced, are students from minority groups/ NESBs perceived or treated any differently to other students during placement? differences in communication, behaviour or expectations that may impact on student mental health during placement?]

b) Do you feel that your own culture influence how you supervise students on placement? How so?

QC4. In your experience, how do students cope with increased stress or anxiety that lead to declining mental health and wellness during their placement? [Probes: proactive e.g., self-care, approach peers/ **approach supervisor**/ Uni coordinator OR not cope e.g., withdraw, denial, burnout; what signs of poor coping mechanisms have you noticed; what might contribute to poor coping mechanisms? **What might prevent them from opening up to their supervisors**]

QC5. a) What experiences have you had with assisting a student who is suffering increased stress, anxiety or declining mental health and wellness during their placement?

[Probes: How did you approach this? What was the outcome? Did this affect your own mental health – how so? Describe how you managed this? Did it affect your relationship with the student and how? Has this changed how you have assisted other students since?]

[Probes: if no direct experience, ask how they might approach this]

b) Do you think it is your role to assist students suffering increased stress, anxiety or declining mental health? [Probes: whose role(s) do you think it is? What level of involvement do you see yourself having?]

c) How do you think supervisors could assist students facing such situations? [Probes: Tips/ strategies that you have found helpful, and which may also help other supervisors?]

SECTION D: SPECIFIC FEEDBACK and SUPPORTS

We have now reached the next section which considers university specific feedback and both university and workplace supports.

QD1. Do you supervise students from other Universities? If yes, and thinking about what we have discussed around student mental health, do you have any comments or experiences which relate to Massey University dietetic students in particular?

[Probes: if you compare Auckland Uni and Otago Uni students to Massey Uni students, what might be differences/ similarities if any e.g., resilience, workload.]

QD2. What do you think your placement site could do to support student mental health and wellbeing during dietetic placements? [Probes: What is in place already to support students? What are the barriers to better support student mental health in your workplace?]

QD3. What do you think Massey University could do to support student mental health and wellbeing during dietetic placements?

SECTION E: CONCLUSION

To conclude our interview today:

QE1. Are there any other issues or comments that you would like to share in relation to this topic and what we have discussed?

This is the end of the interview. Thank you for your participation and contribution to this project. We sincerely appreciate your time and very valuable insights.

You are welcome to contact any member of the research team for the results of this project.

Thank you again.

APPENDIX G: GOOD PRACTICE GUIDE - SUPPORTING WIL STUDENT MENTAL HEALTH/WELLBEING

Sources

- Publications: ACEN (2020); Brooks and Goldstein (2008); Curtin University (2023); Martin and Hughes (2009); Martin et al. (2019); Quinlan and Hone (2020); Universities UK (2015); Universities UK (2022)
- Interview participants
- Author

Starting a placement can be a significant transition for students. As well as the practical learning and development challenges, for many students it will also be their first experience of joining a professional workplace and may be a different cultural environment. Students may often be required move to different accommodation for the duration of the placement into an area that they are not familiar with. This may distance them from networks of support (Universities UK, 2022). This good practice guide aims to provide the workplace with hints and tips to best support WIL student mental health and wellbeing.

COORDINATOR / MANAGER FOCUS

Good Practice	Practical Tips and Advice
Optimising capabilities within the workplace	<ul style="list-style-type: none"> • Establish and maintain cooperative working relationships with the University. • Identify a champion within the workplace to raise awareness of student mental health and wellbeing, and promote the importance of training. • Advocate for and support staff to engage in: <ul style="list-style-type: none"> ○ mental health and resilience training. ○ cultural responsiveness training. ○ training in coaching principles and practices to support student wellbeing. • Have clear information and processes on access, including referral procedures, to workplace and university support services e.g., counselling. • Normalise conversations around student and staff wellbeing.
Setting up the placement	<ul style="list-style-type: none"> • Connect with the University and understand the placement expectations. • Organise the supervision and workload in communication with the team to: <ul style="list-style-type: none"> ○ assign the student one primary mentor/ supervisor throughout the placement. ○ reduce the number of rotations across teams and supervisors. ○ discuss processes around providing ongoing feedback, supervision and monitoring student performance. ○ have mitigating measures when workload or clinical demand may affect student support. ○ encourage and facilitate some connections between WIL students to help create a supportive environment for individuals in similar circumstances. • Plan and undertake a thorough orientation to the workplace including: <ul style="list-style-type: none"> ○ clear, well-structured timetable with input from the university coordinator. ○ strategies to maintain wellbeing, work-life balance and self-care. ○ clear routes of contact for students requiring pastoral care. ○ the workplace culture. ○ preferred communication and reporting methods. ○ introducing the student to others in the workplace.

SUPERVISOR / MENTOR FOCUS

Good Practice	Practical Tips and Advice
Preparing for your student's arrival	<ul style="list-style-type: none"> ● Connect with the University and/or workplace coordinator to understand the placement expectations. ● Review/develop a well-structured timetable and thorough orientation process to your defined area with input from the workplace and/or university coordinator.
Welcoming your student into your workplace	<ul style="list-style-type: none"> ● Make your student feel welcome within your team. ● Explain timetable information, workplace expectations and key processes. ● Familiarise your student with the workplace culture, diversity and expected professional ethical behaviour ● Be understanding and open about the stresses of placement. ● Build into orientation: <ul style="list-style-type: none"> ○ what to expect typically, e.g., clear role description and user-friendly instructions about what the job entails ○ what can happen, e.g., potential upsetting, traumatic or conflict situations, potential stresses ○ where to go and what to do if things get tough, e.g., communication with mentor and/ or WIL coordinator and/ or University coordinator including specific support services available and reassurance around being given the time to access those
Forming a supportive relationship with your student	<ul style="list-style-type: none"> ● Show warmth, empathy and kindness. ● Remember that words only comprise 7% of the impression you make, whereas tone accounts for 38% and your associated gestures account for 55%, e.g., eye contact, body language. ● Take the time to get to know your student: <ul style="list-style-type: none"> ○ where they are from ○ where they are at in terms of their training ○ if it is their first time in this environment ○ how they learn best ○ what they feel confident about and how they want to develop their capabilities ○ their comfort level with different methods of communication ○ their career interests and ambitions ○ how they react when things get tough
Mentoring your student	<ul style="list-style-type: none"> ● Recognise that you are the student's mentor and take an active lead in supervising your student consistently, i.e., avoid shared supervision models where the student is supervised by more than two supervisors within your team. ● Nurture the relationship, building open, supportive, and trusting connections so your student feels comfortable approaching you and bringing up difficulties. ● Be mindful of your unconscious bias especially in relation to communication and expectations. ● Try not to underestimate the introverts or overestimate the extroverts. ● Discuss expectations for the tasks and activities, providing enough training and support. ● Bring things back to basics especially with more complex cases / situations. Help students think through the priorities and what they can help with. ● Be comfortable to take it at their pace and adjust to their learning style. ● Find the balance between pushing/challenging and protecting. ● Judge the student on their ability to improve over their ability to produce flawless results ● Schedule regular catchups e.g., every one to two days, and one-on-one for reflective discussions of progress. ● Provide timely feedback i.e., as soon as possible after the event, action, or behaviour. If unable to do so at the time, try to organise your workload so you free up some time to have a debrief with your student at the end of the day, to just hear their perspective and see how they think things have been going. ● Deliver feedback face to face as much as possible. ● Align your feedback with where the student is at i.e., level of experience and training. ● Do include positive feedback as students are naturally self-critical. ● Bring up challenging feedback and concerns with attention given to delivery. ● Share your own stories, learning experiences and reflections. ● Encourage and support self-care. ● Be relatable and share own challenges with a lifelong learning focus, it's okay to be a learner and it's okay to make mistakes.

<p>Identifying that your student is mentally struggling</p>	<ul style="list-style-type: none"> • Learn to recognise signs of stress or anxiety (physical and emotional). • Be mindful of non-verbal cues and body language, e.g., not coping in a busy hospital environment, wandering mind, distracted and seemingly struggling to absorb or follow instructions, unable to sit still, showing little energy or emotion, tense, flushed, nail biting, sweating excessively, difficulty breathing. • Identify and address issues early. • Discuss openly, actively approaching your student and asking what will help. From there they will often open up. Sometimes a bit of a break is all they need.
<p>Providing support for your student if they are mentally struggling</p>	<ul style="list-style-type: none"> • Be kind above everything, creating a warm and supportive environment. • Have an empathetic, understanding, and flexible attitude. • Do not stigmatise anxiety and stress - everyone will experience this at some point so normalise those feelings and those anxieties. • As a supervisor a lot of things are second nature but for students, they are experiencing brand new things every day on placement. • Ask if they feel comfortable letting you know what is/was stressing them and whether there is anything you could help with. • Ask them if this has happened before what they would normally do - what helps and what does not. • Try to assess together how bad the issue is - do they feel like a fifteen-minute walk outside would be helpful, or do they feel like they might need to go home or need someone to be with them. • Offer ways that you find helpful e.g., “when I feel like I’ve got a lot on my plate, I’ll write a checklist and I’ll tick them off.” • Ask “what are you doing when you get home” – this is more important sometimes - is there enough self-care? • Check that supports are available and what supports the student can access. • Provide encouragement and permission to seek further support. • Show openness to provide further support “you know if you need any support, or any input just flick me an email or a text”. • Reassure them that if they need more time / a break, that it is actually okay. • Draw on your patient-related skills and transfer these to your student. • Reconsider the workload e.g., peel back caseload / adapt placement to something they would be more comfortable with while still meeting placement requirements. Give them a bit of extra support, resources and coaching alongside. • Consider sending them home for a day to just relax and come back with a fresh start the next day. • Ask the student to summarise your advice and the agreed support plan if you are unsure they have understood. • Get in touch with supervisors from the University especially if it is something that is really impacting them. • Escalate concerns and check if unsure, gaining student permission to bring in others/ refer on.
<p>Engaging in professional development to better support your student and yourself</p>	<ul style="list-style-type: none"> • Engage in regular reflective practice around your supervision and mentoring skills. • Develop and maintain skills around identifying signs of issues and providing appropriate support. • Actively seek upskilling opportunities and peer support including peer reviews, as well as feedback from your student.