Fathers' Help-Seeking and Support:

The Importance of Relationships for Mental Wellbeing

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Abstract

Becoming a father is a major transition for men, and may be a source of happiness and fulfilment, as well as distress. Perinatal mental health research has traditionally focused on mothers, with paternal mental health receiving limited attention. Men are adopting more caregiving roles and increasing their parental involvement, while maintaining their traditional role as a key provider for the family. Balancing these roles may lead to experiences of psychological distress, and help-seeking can be important in alleviating the impacts of paternal distress. However, research on fathers' help-seeking and mental health needs remains scarce. Therefore, this thesis sought to better understand fathers' experiences of help-seeking, and facilitators and challenges of paternal help-seeking to support mental health.

Study 1 involved in-depth semi-structured interviews with 11 fathers about their experiences regarding transition to fatherhood and seeking support and advice in early years of parenthood. Fathers reported experiencing distress and uncertainty during the transition to parenthood; however, most did not believe their distress required seeking professional help. Fathers also used a variety of individual and interpersonal coping strategies. Partners were the most important source of emotional support for fathers, but some fathers felt it was inappropriate to seek their partner's support while she was coping with the stress of pregnancy and new parenting. This study revealed that fathers viewed themselves in a rather traditional role of provider and as a source of emotional and financial stability for their family. This led to work-life balance stress and, for some, created a dilemma where they felt unable to seek emotional support from their most trusted person—their partner.

In study 2 the role of social support, particularly partner support, was explored in relation to paternal mental health and parenting. Data from fathers participating in *Growing*

Up in New Zealand (*N* = 2601) were used, focusing on data waves during pregnancy and at child ages 9 months and 2 years. Concurrent partner support, and to a lesser degree, other informal support (friends and family) was related to lower paternal distress during pregnancy and at child age 9 months. Although significant, the magnitude of the association was small. There was no evidence of social support in infancy buffering a negative association between distress and parenting outcomes at child age 2 years.

Study 1 found that most fathers did not feel that their distress warranted a professional intervention. Following from this, study 3 investigated the relationships among mental health literacy (MHL), emotional distress, and fathers' perceptions of barriers and modes of mental health help-seeking. Data were collected from a community sample of New Zealand and Australian fathers (*N* = 129). The study involved completing an online vignette survey, the Depression, Anxiety, and Stress Scale 21 Items (DASS-21), and two open ended questions. Those with a high DASS-21 stress score were more likely to report the individual in the vignette as needing help or having a mental health problem. regardless of the accuracy of this choice. Additionally, more fathers were able to correctly recognise clear symptoms of depression (typical depression) compared to masked depression. Fathers described several informal and formal sources for support and internal and external barriers (e.g., stigma and time/cost) to help-seeking.

This thesis adds to the growing knowledge on fathers' mental wellbeing by examining paternal help-seeking and distress as well the role of social support. Overall, the findings of this research are consistent with the limited amount of existing research suggesting that partner support has a unique role in paternal mental health. The findings also suggest greater emphasis on the role of relationships and social support in fathers' mental health and help-seeking. The main implications of this thesis for health professionals who interact with young families are that paternal mental health requires greater clinical and social attention, and

fathers with low levels of social support, poor work-life balance and mental health literacy, and traditional masculine beliefs on help-seeking may be at high risk of experiencing mental health difficulties.

Dedication

To Meysam Pirfalak, whose son

Kian never returned home.

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Formatting Statement

This thesis is presented in a journal article compilation style format. Each chapter is based on a manuscript that has been submitted to or published in a peer-reviewed journal, except for the introduction (Chapter 1) and general discussion (Chapter 5). (Chapter 2) study 1: Fathers' help-seeking behaviour and attitudes during their transition to parenthood, has been formatted based on the Infant Mental Health Journal. All manuscripts have been re-formatted to a single style for the purpose of this thesis using American Psychological Association (APA) 7th Style.

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1. General introduction

Changing concepts of fatherhood

Becoming a father is a major transition for men which includes many rewards and highs as well as challenges and lows (Garfield et al., 2014; Musser et al., 2013). Transition to being a father has been associated with a healthier lifestyle after partner pregnancy (e.g., having a healthier diet, reduced smoking, and drinking) (Shawe et al., 2019); and is considered a meaningful and influential experience which brings men joy and fulfilment (Milkie & Denny, 2014). However, meeting the demands of this rapidly changing role can create distressing challenges for fathers (Gross & Marcussen, 2017). Today's fathers must grasp complex responsibilities and identities of an ever-changing role (Hytti et al., 2023). Although becoming a new father can be a source of distress, this distress is not exclusive to the transition period. Fathers continue facing challenges throughout their role, with the continued financial stress and the possible addition of new children (Ward & Lee, 2020) and meeting the needs of children based on their developmental stage (Trumello et al., 2022). These challenges vary depending on the context—cultural and historical—of the family (Rodriguez-JenKins & Ortega, 2021).

The role of fathers has changed significantly in Western industrial nations in the past three centuries. Prior to the industrial revolution, most families had home based or agricultural economies which required all family members' efforts and contributions to earn an income (Featherstone, 2009). This way of life changed with the source of employment largely moving to the cities and factories; therefore, men's work moved out of their homes and women had to maintain the house (Coontz, 2000). By the early 20th century fathers had

become the main source of income for their families while mothers were responsible for child-rearing (Featherstone, 2009). Families in this time were quite hierarchical and patriarchal with power mostly resting with fathers. For example, in rare cases of divorce, children's custody was often given to fathers (Featherstone, 2009).

By the mid-20th century, the nuclear family was the norm for most families in Western countries (Pryor et al., 2014). Despite becoming more educated, women spent most of their time at home caring for the children as men continued to be the breadwinners (Pryor et al., 2014). During World War II, with men away to serve, many women entered the workforce to provide for their families (Aumann et al., 2011). The civil rights and feminist movements of the 1960s and 1970s led to women gaining more equality, and therefore increasingly working outside the home. Maternal work outside the home required more division of labour between parents and the increase of father involvement in parenting at home (Miller, 2010). Fathers also began experiencing a cultural shift in their roles and responsibilities with more expectations of their emotional and physical involvement with children (Hambidge et al., 2021; Craig & Mullan, 2012).

The research on fatherhood largely reflects a European framework and experience (Lamb, 2004). Although there is a history of researching paternal social roles in anthropology and ethnographic literature, only a limited number of studies have explored the personal experiences of Indigenous fathers (Ball, 2009). Existing international literature highlights the negative impacts of colonialism on Indigenous family structure such as urbanisation, historical trauma (Karena, 2012; Taonui, 2010), segregation, and social isolation (Pihama et al., 2014). These barriers continue to limit Indigenous children's exposure to positive male role models and passing along cultural knowledge and skills to the next generation (Ball, 2009). Culturally responsive practices, adopting a holistic approach to health, (Elkington, 2017) and equitable parenting arrangements post-separation (Ball, 2009) are some of the

recommendations to improve Indigenous fathers' wellbeing and involvement with their children.

Challenges of modern fatherhood

Even with these cultural shifts, men are often considered breadwinners in Aotearoa New Zealand (NZ) (Pryor et al., 2014) like other OECD English speaking countries (Coles et al., 2018). Their primary role is traditionally defined as providing financial security for the family, which can be more challenging alongside rises in the cost of living and subsequent increases in work hours (Gatrell et al., 2022). The change of paradigm whereby fathers are expected to be more involved in childcare, poses challenges to modern fathers who need to balance their new parental role with their traditional paternal responsibilities (Cooklin et al., 2016). Modern fathers are often expected to act differently than what they observed from their own fathers (Grau Grau et al., 2021).

Although the new norms of fatherhood encourage more parental involvement, fathers' desires for involvement in childcare and parenting are largely ignored by industries that require long paid work hours to secure employment or advancement (Gatrell et al., 2015; Williams et al., 2013). Fathers may also experience more stigma than mothers for requesting family-friendly or flexible work hours (Kangas et al., 2019; Rudman & Mescher, 2013), and even after acquiring them, may experience career and income regression (Cooklin et al., 2016). Despite these challenges, fathers seem to be moving from viewing themselves as solely financial providers to active participants in parenting and caring for children (Waldvogel & Ehlert, 2016). Balancing these roles may be challenging and work-family conflict may negatively affect fathers' and families' wellbeing (Gatrell et al., 2022; Kvande, 2009).

High levels of work-family conflict (the incompatibility between work and family demands) have been associated with psychological distress in fathers (Giallo et al., 2013). Men's perception of fatherhood has also changed over the past 20 years, with more men viewing family involvement and financial support for their family as equally important (Harrington et al., 2016). While fathers have expressed their desire to fulfil both their 'breadwinner' and parental responsibilities, workplace and government policies and practices continue to frame mothers as the primary carers and fathers as the providers (Rusten et al., 2019). For example, only 15% of all American companies provide any type of paternal leave (Ladge et al., 2015). In NZ, if one parent chooses to take 12 months of parental leave, the other is only entitled to 1-2 weeks of unpaid parental leave (contingent on having worked for a specific period) (Parental Leave, 2022). Compared to previous generations, modern fathers are faced with new and complex competing pressures to be an involved father and to meet the work demands (Rusten et al., 2019). Despite these competing pressures, fathers are not often acknowledged as equal parents by wider society (Pålsson et al., 2017), and their mental health and parental needs are rarely discussed (Wong et al., 2016).

Becoming a parent can be challenging with lifelong implications and adjustments (Doss et al., 2014). This transitional period can exhaust current resources, cause new difficulties, and exacerbate pre-existing problems (Gross & Marcussen, 2017). New fathers may experience several psychological challenges including the transformation from a dyadic to triadic relationship, learning to share their affection with more than one person (Deave & Johnson, 2008) and the possibility of marital conflict (O'Brien et al., 2017). Fathers also want to provide care for the baby, something which they may lack preparation for (Hambidge et al., 2021). These stressors can have an impact on fathers' mental wellbeing which is important in the context of family health.

Fathers' wellbeing and its impacts on family

While the wellbeing of mothers has been extensively researched (Gartland et al., 2022; Abimana et al., 2020; Linares et al., 2020), paternal wellbeing and mental health remains relatively understudied (Fisher at al., 2021). Perinatal mental health services have predominantly focused on assessment and treatment of maternal mental health following childbirth, or on mothers with pre-existing conditions that may become exacerbated perinatally (Wong et al., 2016). Although fathers are recognized as key early attachment figures (Sroufe, 2005; Waters et al., 2000; Bowlby, 1988), empirical research examining attachment has also largely focused on mother-infant dyads (Wong et al., 2016). Despite fathers' increasing involvement in childcare and parenting, their input into research on family wellbeing continues to be limited (Isacco et al., 2016). This is partly due to mothers most often being the primary caregivers and an accessible source of information on child development and family health (Bond, 2019). Recently, there has been a growing recognition of the importance of paternal mental health and its impacts on the family unit and child outcomes (Martin et al., 2022; O'Brien et al., 2017).

Research has demonstrated the importance of fathers' contributions to child development and wellbeing (McLanahan & Schneider, 2013). Fathers have a significant impact on mental health outcomes for their partner and children (Li et al., 2021). Positive interactions with fathers and their active involvement have been associated with healthy child development outcomes across the lifespan (Jessee & Adamsons, 2018). Lamb et al. (1987) (among pioneers of modern fatherhood research), created a conceptual model for paternal involvement which serves as an important clinical guide for paternal research and father-oriented practice (Bond, 2019). According to the model, positive paternal involvement is categorised into three domains: (1) interaction: direct engagement (positive activities) with

the child, (2) accessibility: physical and/or psychological availability (responsiveness) to the child, and (3) responsibility: providing care for the child's wellbeing. These domains of paternal involvement will be used throughout this thesis.

Attachment is the earliest form of relationship experienced by an individual and encompasses the lasting affectionate bond between a child and a caregiver (Ainsworth & Bowlby, 1991). The quality of this interpersonal relationship can have an impact on future personality development and a secure attachment is likely to lead to healthy adaptation, whereas an insecure attachment increases the risk of difficulties in child outcomes and functioning (Brumariu, 2015). Research on attachment has shown that a secure father-child attachment is associated with quality (sensitivity) and quantity of fathering behaviour, relationship stability and an increase in parental involvement (Lamb & Tamis-Lemonda, 2004). Fathers have traditionally developed attachments with their children through active play and slightly later than mothers, who form this bond through caregiving (Houghton et al., 2015). Fathers form what has been described as an "activation relationship" which acts as a core structure for forming secure relationships (Paquette & Dumont, 2013, p. 762). The activation relationship refers to parental behaviours that may be moderately intrusive, directive and challenging with children, yet positive and sensitive at the same time (e.g., often this is described as 'rough and tumble'/exploratory play). This is an affective relationship which supports children to explore the outside world through parental stimulation of control and risk taking that is distinct from the mother-child relationship (Paquette & Dumont, 2013). The activation relationship is also related to fathers' capacity to gradually support and challenge their children throughout their development (Bond, 2019). Knappe et al. (2021) found that paternal psychopathology may hinder the development of antenatal bonding as fathers with depressive disorders exhibited lower levels of antenatal attachment.

Father absence is related to poor child outcomes, including academic achievement, mental health (higher rates of low mood and depression) and antisocial behaviour in boys (Bond, 2019; O'Brien et al., 2017), alcohol and substance abuse, loneliness, and low self-esteem (McLanahan et al., 2013). Longitudinal studies have found strong evidence for the relationship between a father's absence and children's socio-emotional problems, particularly externalised behaviour (e.g., aggression) (Flouri et al., 2015; Geller et al., 2012). These effects seem to be more profound for paternal absence in early childhood compared to middle childhood, and more likely to affect boys than girls (Craig et al., 2018; Cooper et al., 2011). Father absence is also attributed to an increased risk of socioemotional difficulties in adolescence including engagement in risky behaviours, smoking, and teen pregnancy (McLanahan et al., 2013). Research on long-term effects of paternal absence on adult mental health outcomes is limited; however, previous studies have indicated that paternal absence in childhood is related to internalising problems (e.g., depression and anxiety) (Cooper et al., 2011) which can persist throughout life (D'Onofrio et al., 2007).

There is increasing evidence that fathers' mental health is related to on children's development and later behaviour (Ward & Lee, 2020; Giallo et al., 2013). Paternal depression at 8 weeks postpartum has been related to behavioural problems in children aged 3 ½ years, even controlling for factors such as later paternal depression and maternal depression (O'Brien et al., 2017). Paternal depression in antenatal and postnatal periods have been found to increase the risk of psychopathology (e.g., conduct problems) in children aged 3 ½ years and psychiatric diagnosis in children aged 7 (Ramchandani et al., 2008). Early onset of paternal depression is related to poor socioemotional development in children aged 4 to 5 years old (hyperactivity in boys and emotion and social development in girls) (Fletcher et al., 2011). Postnatal paternal depression has been associated with negative cognitive and educational outcomes in children (O'Brien et al., 2017).

Depression in fathers can negatively affect parenting behaviours and relationships (Giallo et al., 2013). Fathers experiencing depression are less likely to demonstrate positive parenting behaviours (e.g., warmth and responsiveness) and more likely to engage in maladaptive behaviours (e.g., hostile parenting and disengagement) (Kahn et al., 2004). Davis et al. (2011) found that fathers with depression were 50% less likely to read to their 1-year-old child and four times more likely to use physical punishment compared to fathers without depression. Fathers with depression are more likely to experience lower levels of affection and satisfaction in their romantic relationship, even when controlling for partner depression (Boyce et al., 2007). Fathers' distress can exacerbate the effects of maternal depression, increasing the risk of mental health problems for children (Martin et al., 2022), while positive father behaviour toward mother and child can be protective against the negative effects of maternal depression (Trumello et al., 2021).

Overall, fathers' wellbeing and involvement seem to be important for children's socioemotional and developmental wellbeing (Wong et al., 2016). There is evidence for paternal involvement as a significant factor in children's psychological, social, and cognitive development (Popp & Thomsen, 2017), and the general wellbeing of mothers and children (Darwin et al., 2021). The adverse effects of poor paternal mental health (O'Brien et al., 2017) and father absence (McLanahan & Schneider, 2013) on the whole family highlight the importance of research on fatherhood. Thus, fathers' mental health, paternal involvement and help-seeking become important areas for research and intervention.

Men and fathers' health

Recently, father's mental health during pregnancy has received more recognition as more fathers have become involved in child rearing and parenting (Rusten et al., 2019). Transition to parenthood and the continued fulfilment of this role can affect fathers' mental

health and the wellbeing of the family, but this impact was not always considered in the prenatal research (Schuppan et al., 2019). Therefore, maternal mental health was the primary focus of perinatal mental health interventions (Tully et al., 2018). While child outcomes and development have been extensively examined in the context of maternal health (Sanders et al., 2015), growing research has shown the benefits and importance of father inclusivity to family health (Giallo et al., 2013).

A range of factors affect health and lifespan (e.g., genetics and socioeconomic status), with modifiable health risk behaviours (activities that affect health outcomes) particularly important to consider (Seib et al., 2022). Smoking, alcohol use, overall level of nutrition, utilising external support, and exercise are examples of these behaviours (Noble et al., 2015). A large body of research indicates that men are more likely to engage in detrimental health behaviours (e.g., tobacco and alcohol use) than women, which increases their rate of morbidity (Seib et al., 2022; Cho & Kogan, 2016; Noble et al., 2015; Shafer & Wendt, 2015; Pinkhasov et al., 2010). Excessive use of alcohol to combat distress is quite prevalent among men, which can result in dependency (Fisher et al., 2012). Elevated alcohol use has also been recognised as a risk factor for suicidal behaviour (Moreira et al., 2015). It has been estimated that these modifiable health risk behaviours account for around half of all morbidity and mortality in men (Mokdad et al., 2004).

Men's earlier death and higher likelihood of experiencing injuries and contracting diseases compared to women have been attributed to men's "unhealthier" lifestyle (Pelman & Elterman, 2014). Men are more likely than women to die from major diseases such as cardiovascular disease, and external factors (e.g., car accidents) (Mollborn et al., 2020). Men are less likely than women to engage in preventative/health practices such as visiting their general practitioner or requesting medical check-ups (Pelman & Elterman, 2014). This gender disparity also exists in mental health (Bilsker et al., 2018). Male suicide has been

called a ‘silent epidemic’ (Bilsker & White, 2011). Men are four times more likely to die by suicide than women in the United States (Kaplan et al., 2007). Moreover, men are less likely to seek support for suicidal ideation than women (Bilsker et al., 2018). Becoming a father and the subsequent adjustments to parenthood can increase the odds of experiencing distress (Wilson et al., 2019), thus help-seeking may play an important role in mitigating the negative consequences of this distress.

Paternal mental health

Previous research has estimated 8-10% of fathers experience depression between the first trimester and first year postpartum (Rao et al., 2020; Cameron et al., 2016). The period of 3 to 6 months after birth has the highest rate of paternal depression which is higher than the prevalence of depressive disorders (5%) in the general population (Fisher et al., 2021; Habib 2012). Maternal postpartum depression (21.9% over the first year postpartum) is approximately two times higher than paternal depression (Wisner et al., 2013), which is similar to the 2:1 ratio of depression among the general population of women and men (Gelenberg, 2010). Garfield et al. (2014) in a longitudinal study of fathers reported participants experiencing increased depressive symptoms that lasted through the first 5 years of parenthood, compared to the previous years. Kiviruusu et al. (2020) found moderate to severe paternal depression to have stable trajectories from pregnancy to 24 months postpartum, reflecting the chronic nature of perinatal depression.

Several risk factors have been associated with elevated rates of paternal depression, including a prior history of depression (Fisher et al., 2015; Hanington et al. 2012), maternal/partner depression (Paulson & Bazemore, 2010; Hanington et al., 2012), hormonal changes and imbalances (Saxbe et al., 2017), gender role stress (Habib, 2012), low social support and stressful life events (Singley & Edwards, 2015), and relationship conflict

(Tambelli et al., 2019; Sockol & Allred, 2018), all of which can trigger new depressive episodes or exacerbate or prolong the recurrent depressive symptoms. The perinatal period and parenthood can be rewarding experiences; however, they can also be challenging due to socioemotional (change of roles and extrafamilial relations), socioeconomical (e.g., health disparities and childcare costs), interpersonal (e.g., impact on mother-father relationship), and biological (e.g., reduced sleep) stressors that can negatively affect fathers' mental health (Philpott et al. 2017).

As in other developed countries, fathers' mental health in NZ is relatively understudied. Pryor et al. (2014) described demographic, health and parental involvement information of over 4401 fathers in the antenatal period who participated in *Growing Up in New Zealand* birth cohort study. The depression rate of this group of NZ fathers (8.35%) was similar to the male prevalence depression rate (8.4%) in NZ general population (Ministry of Health, 2008). The sample, largely consisting of relatively young adult males was considered generally healthy; however, the rate of paternal antenatal depression was higher than Australian (3.5%) (Condon et al., 2004) and English fathers (3.5-5.3%) (Matthey et al., 2000). It should be noted that Pryor et al.'s criterion for depression was self-reported doctor diagnosis of depression, compared to elevated scores on self-report measures such as BDI (Beck depression inventory) and EPDS.

The more recent estimates report approximately 1 in 8 (12.5%) NZ men experiencing depression (New Zealand Health Survey, 2020); therefore, the rate of perinatal paternal depression may have also increased over time. Rusten et al. (2019) examined risk factors for psychological distress in NZ fathers of 6-year-old children. The factors associated with elevated psychological distress were similar among both resident and non-resident fathers; however, non-resident fathers had a higher risk of experiencing financial stress, unemployment, poor wellbeing, and history of mental health disorders. The biggest risk

factors were work-life balance, relationship conflict, economic hardship, and a previous history of depression (Rusten et al., 2019).

There is evidence that male depression is underreported (Martin et al., 2013; Veskrna, 2010); therefore, it is likely that paternal postnatal depression also remains underdiagnosed (O'Brien et al., 2017). Paternal perinatal mental health problems may be underestimated due to a variety of factors, including underreporting of traditional depressive symptoms by men due to stigma and perceptions of masculinity, different (Call & Shafer, 2018) or unique expression or experience of depression by men (Cochran & Rabinowitz, 2003), and engagement in avoidance or escaping behaviour (e.g., aggressive behaviour, suicide, and substance abuse to cope with distress) (Brownhill et al. 2005). Therefore, using traditional measures to screen may be inadequate and underestimate the rate of paternal depression (Fisher et al., 2021).

Furthermore, most studies on perinatal mental health in fathers have examined depression, while paternal anxiety is understudied (O'Brien et al., 2017). There is evidence that fathers' distress increases during transition to fatherhood and is also related to family health (Philpott et al., 2019). Fisher et al. (2012) found an association between perinatal mental health disorders (depression and anxiety) and alcohol dependency and intimate partner violence in men. Fathers are also at risk of experiencing postpartum anxiety due to interparental stress during early child development (Figueiredo et al., 2017). A meta-analysis reported the rate of paternal prenatal and postnatal anxiety disorder to be 4.1-16% and 2.4-18% respectively (Leach et al., 2016). Due to the high comorbidity between anxiety and depression, both should be examined in the context of paternal mental health (Leach et al., 2016).

While depression can manifest itself as low mood and reduced interest in previously enjoyable activities for both men and women, it is more likely to be presented as irritability, aggression and reduced impulse control in men (Rochlen et al., 2010). Male depression can be 'masked' by substance abuse, marital conflict, overworking, gambling, hyperactive behaviour, and somatic complaints (Darwin et al., 2021; Melrose, 2010; Rabinowitz & Cochran, 2008). These avoidant behaviours which are more common in men than women have been associated with men's reluctance to display signs of vulnerability or weakness (Wilhelm, 2009). The research on men's experiences of depression highlights assessment and diagnostic limitations (Rochlen et al., 2010). It has been argued that the current form of assessment is skewed toward conventional symptoms of depression which may be inadequate to diagnose male depression (O'Brien et al., 2017). There is evidence that more men meet the criteria for depression after screening for masked depression symptoms and use of gender sensitive questions (Martin et al., 2013).

Findings above raise questions about the discrepancy between depression rates in men and women (male depression is 50% lower than females), while suicide in men is significantly higher than women (O'Brien et al., 2017). In NZ, men are twice as likely to lose their lives by suicide than women (Coronial Services of New Zealand, 2020). In summary, men, especially new fathers, experience stressors including work-family conflict and adjustment to changing demands. Failing to recognise their distress, and receiving support from others may develop into depression (Wilhelm, 2009), which is associated with different behaviours and symptoms than for women and is often undiagnosed (Martin et al., 2013). Thus, health and mental health literacy play an important role in general help-seeking and wellbeing (Fleary et al., 2022; Ratnayake & Hyde, 2019).

Mental health literacy

Health literacy was defined by the US Institute of Medicine (IoM) as an individuals' ability to comprehend and seek basic health information and services to make informed health decisions (Medicine et al., 2004). This definition was further expanded by the World Health Organisation (WHO) to include the social and cognitive capabilities that encourage and enable individuals to obtain access to, process and utilise relevant information to improve and maintain their health (Commission on Social Determinants of Health, 2007). Jorm and colleagues (1997) applied the concept of health literacy to the mental health field and created the term 'mental health literacy' (MHL). Furthermore, Jorm et al. (1997) described the following as the characteristics of MHL: knowledge and ability to recognise disorders and seek mental health information, knowledge of risks and causes of disorders and how to self-treat and access professional help; and attitudes that promote recognition of mental health disorders and appropriate help-seeking.

There has been continuous development in the assessment and measurement of MHL, since its introduction (Lam, 2014). Traditionally, vignette-based instruments have been used to assess an individual's ability to recognise mental health problems in the public (Lam, 2014). Vignette methodology relies on narratives with practical manipulation of case attributes to investigate participants' views or attitudes on a particular topic (Payton & Gould, 2022). Jorm et al. (1997) introduced rating scales to examine participants' perceptions of medical and non-medical treatments of mental health, using vignettes. Since then, the assessment of MHL has been further expanded by examining other aspects of MHL such as intention to seek support, and attitudes on prevention and intervention (Jorm, 2000).

MHL has been examined and assessed in different countries and populations (Wong et al., 2012; Reavley & Jorm, 2011a); however, most studies have focused on adult (Jeong et

al., 2018; Tieu et al., 2010) or older adolescent (e.g., university students) populations (Almanasef, 2021) and specific research on paternal MHL is rare (Swami et al., 2020). Most of these studies assessed the MHL level and the related characteristics such as perceptions on help-seeking and stigma (Almanasef, 2021; Reavley & Jorm, 2011b; Reavley & Jorm, 2011a; Leighton, 2010). Research indicates that higher levels of education and being a woman were positively associated with higher levels of MHL (Leighton, 2010). Additionally, women and those with a history of mental health problems are more likely to seek support from a variety of sources (Reavley et al., 2012). Current research also shows there is a positive relationship between MHL and help-seeking behaviours (Almanasef, 2021; Kutcher et al., 2016). This finding has important implications for fathers because men are more likely to have lower levels of MHL (Lee et al., 2020; Cotton et al., 2006), are less likely to seek help for their mental health (Milner et al., 2019), and specific research on paternal MHL is rare (Hurley et al., 2020).

Help-seeking

The World Health Organization (WHO) has defined help-seeking as any act or behaviour carried out by an individual who views themselves as needing personal or psychological support or access to health or social services to accommodate this need in a positive manner (Barker, 2007). This includes seeking support in a formal way (e.g., visiting clinics, mental health professionals, religious centres, or youth workers) and informally (e.g., family members, romantic partners, peers, and other individuals in the community) (Barker, 2007).

A systematic review of conceptualisation and measurement of help-seeking by Rickwood and Thomas (2012) found that despite extensive research, it remained a complex construct without a commonly referenced definition and lacking a standardised form of

measurement. Furthermore, sources of help were grouped into four categories: formal (professional mental health workers such as psychologists and psychiatrists), semiformal (youth workers and academic advisors), informal (romantic partner, friends, and family) and self-help (e.g., websites and books) (Rickwood & Thomas, 2012). Most studies on help-seeking are health and mental health focused (Osman et al., 2023; Ettridge et al., 2018; Keeling et al., 2017; Mitchell et al., 2017; Rice et al., 2017). Depression is one of the most studied mental health disorders in the context of help-seeking, as well as broad mental health terms such as 'mental health' or 'emotional problem' or 'mental/emotional distress' (Whittle et al., 2015). Anxiety and suicide ideation are also among the most studied types of mental health problems in general (Logan et al., 2015; Leach et al., 2014). Although health is an important domain, there are other domains that may also be significant, particularly in the context of fatherhood. For example, practical aspects of parental help-seeking (e.g., childcare, and learning to change a diaper) do not fit into the health domain and yet are deemed useful by fathers (Baldwin et al., 2018). A systematic review of help-seeking interventions for parents of adolescents found that the majority of the interventions were aimed at improving parental help-seeking for children's behavioural and emotional problems (Murphy et al., 2022).

Research on gender and help-seeking for substance abuse, and medical and mental health reasons has shown that men as a group, regardless of their age, ethnicity and nationality seek professional help less often than women (Wendt & Shafer, 2016; Breslin & McCay, 2013; Osório et al., 2013; Hammer & Vogel, 2010; Jorm et al., 2006). Shafer and Wendt (2015) examined the relationship between vignette type (depression and schizophrenia) and favouring help from formal and informal sources. The authors found no gender difference in informal help-seeking (e.g., talking to friends and family) for mental health regardless of the nature of the problem. However, men were less receptive than women

to formal help-seeking for depression and were less likely to express positive views on mental health help-seeking (Shafer & Wendt, 2015).

Engaging men in healthcare (Kwon et al., 2023) and parenting programs (Stahlschmidt et al., 2013) has been a challenge. Some men view the environment of social service providers or a clinic as more tailored to women and less welcoming of men (Lee et al., 2011). Men's low help-seeking has also been attributed to the absence of male mental health workers, since some men prefer other men for counselling (Shafer & Wendt, 2015). It has been suggested that men view mental health professionals and current services as inadequate to treat their emotional distress (Rochlen et al., 2010). Ethnic minority and low socioeconomic fathers are less likely to engage with parenting programs than white Europeans and those without financial problems (Isacco et al., 2016).

Men's engagement with formal mental health help-seeking is relatively low compared to women (Sagar-Ouriaghli et al., 2019). A cross sectional study of help-seeking intentions in Chinese women found that about 58.3% of total 874 participants reported they were 'likely' or 'very likely' to seek professional mental health support if experiencing depression during the perinatal period (Huang et al., 2023). Men with depression may discontinue their mental health visits despite the effectiveness of many psychological treatments (Kwon et al., 2023). Rice et al. (2017) found that men with the highest risk of depressive symptoms were most likely to have a negative perception on help-seeking and experienced the most barriers. One of the few studies investigating mental health help-seeking in fathers t found that only 3.2% of nearly 2000 participants had sought formal mental health support (Isacco et al., 2016). The authors found a negative association between depressive symptoms and help-seeking. It was argued that the symptoms of depression (e.g., distorted cognition) could prevent help-seeking or underusing services may exacerbate depressive symptoms in fathers (Isacco et al., 2016).

Intimate partners can play an important role in fathers' mental health, especially in the context of postnatal depression. There is evidence that marital satisfaction, and maternal postnatal depression (PND)are associated with paternal postnatal depression (Da Costa et al., 2017; Anding et al., 2016; Bergstrom, 2013; Serhan et al., 2013). Depression in parenting couples has been found to correlate (Cameron et al., 2016) and perinatal depression in mothers increases fathers' risk of experiencing mental health illnesses. Some small-scale studies have found between 42-50% of fathers with a partner receiving mental health inpatient care may experience moderate to severe mental health problems (Goodman, 2004). In fact, Duan et al. (2020) found maternal marital satisfaction to play a significant mediating role in paternal postpartum depression (PPD), while maternal PPD directly influenced paternal PPD. Men who are satisfied with their intimate relationships are three times less likely to experience postnatal depression than those who are unsatisfied (Giallo et al., 2013).

Parents' adjustment to a new stage of child development and change in interparental relationships and partner support (due to addition of children) can influence both parents' mood, increasing their risk of experiencing distress (Duan et al., 2020). Thus, social/informal support may have an important effect on fathers' mental health and adjustment to their new parental role (Short et al., 2023). Fathers struggling with somatic symptoms and distress are more likely than mothers to be socially isolated, have lower levels of interpersonal support, adopt detrimental coping mechanisms, and have a poor relationship with their intimate partner (O'Brien et al., 2017). Men's partners or spouses are often considered their main source of emotional support (Åsenhed et al., 2014) and men may find it difficult to request support from people other than their partners (Patulny, 2011). This evidence indicates that distressed fathers need social, and in particular partner, support the most; however, factors such as harmful coping strategies, poor relationships and stigma may reduce the likelihood of seeking such support.

Stigma and masculine norms

Stigma is a complex concept with varied conceptualisations; however, it is commonly described as an attribute that makes an individual 'different', and further devaluation of that individual based on this difference (Dovido et al., 2000). Stigmatisation has been described by Goffman (1963) as being "reduced in our minds from a whole and usual person to a tainted, discounted one" (Goffman, 1963, p.3). Stigma can be internalised leading to feelings of self-blame, embarrassment, and fear of prejudice which can negatively affect psychosocial outcomes (Ettridge et al., 2018).

Traditional masculinity has been associated with values such as strength, self-reliance, resilience, stoicism, and independence (McKenzie et al., 2018; Lefkowich et al., 2017). The masculine gender role, shaped by culture and societal norms, has made these characteristics a core part of men's identities (Kwon et al., 2023). Therefore, actions related to help-seeking such as acknowledging weakness and need for help, revealing vulnerability, relying on others, and recognising an emotional problem could clash with these traditional masculine values (Gough, 2013) and even threaten their affiliation with traditional masculinity (Beel et al., 2018). These beliefs tend to have a profound impact on mental health help-seeking which tend to be stigmatised among men and create barriers for those who require help (Rice et al., 2017; Nam et al., 2010).

Men have expressed concern for feeling pressured to conceal their emotions and vulnerabilities from others, yet it is not clear how much of this pressure is vocally communicated or is merely perceived (Harding & Fox, 2015). Men with depression reported experiencing criticism and labelling after sharing their struggles at their workplace or social setting (Staiger et al., 2020). As a result, men may mask their mental health issues or attempt to control how they are perceived by others (Addis & Hoffman, 2017). Additionally, men

with depression were concerned about exclusion and emasculation by peers and family if they visit a clinician or request help (Rochlen et al., 2010).

A qualitative study of men with a history of depression found that some participants denied having any psychological problem and chose not to receive psychological treatment even after a consultation with a mental health professional (Rochlen et al., 2010). Masculine beliefs, social stigma, as well as personal experiences can hinder men's ability to share their difficulties with others (Kwon et al., 2023). Help-seeking behaviour may be predicted based on the degree to which a man adheres to specific gender norms which can discourage engagement with professional health services (Addis & Mahalik, 2003). In contrast, men with a positive attitude on help-seeking are more likely to receive help (Hammer et al., 2013; Vogel at al., 2009). Furthermore, an intervention to increase youth MHL was associated with reduced stigma, and an increase in help-seeking intent and awareness of supports (Lindow et al., 2020).

Despite its contributions and strengths, the hypothesis that stigma associated with traditional masculine norms explains lower rates of male help-seeking has a number of limitations. Firstly, many studies examining mental health of men or fathers have included predominantly white middle class men as participants which may provide a Eurocentric description of masculinity (Fletcher et al., 2018; Rice et al., 2017; Mahalik et al., 2007; Addis & Mahalik, 2003). Secondly, it is important to note that masculine beliefs are not inherently positive nor negative, but rather adaptive or maladaptive depending on the context. For example, being a provider generates feelings of pride and a sense of purpose for many fathers (Heppner & Heppner, 2009); however, this can be detrimental if done at the expense of other needs and responsibilities such as addressing one's health or helping with childcare (Hammer & Good, 2010).

The positive psychology/positive masculinity (PPPM) model is a strength-based approach which aims to help men identify positive aspects of masculinity (e.g., worker-provider, male ways of caring, or self-reliance) and thus use them to improve their wellbeing (Englar-Carlson & Kiselica, 2013). There is evidence that connecting with traditional responsibilities such as being a provider can be used to promote help-seeking in men (Shafer & Wendt, 2015). A qualitative study on protective factors of men's suicide found that offering practical help to cope with crisis and encouraging men to think about their familial role and obligations reduced suicidal ideation (Player et al., 2015). Consistent with PPPM model (Kiselica & Englar-Carlson, 2010), Cole et al. (2019) found an association between conformity to certain masculine norms (e.g., risk taking and pursuit of status) and positive functioning (e.g., resilience, autonomy, and courage) in men.

Addis and Mahalik (2003) have suggested that multiple masculine ideologies can exist within a person. Furthermore, to better understand help-seeking, the broader context (sociocultural background and sexual orientation) must be considered alongside the role of stigma and socialisation. Men's sense of masculinity, stigma, help-seeking attitude, and the compatibility of the provided/requested support are heavily influenced by sociocultural contexts (Vogel et al., 2011).

Culture and fatherhood

Cultural values and beliefs play an important role in shaping an individual's behaviour, lifestyle, values, parenting, and help-seeking (Bornstein, 2012; Tummala-Narra, 2015). Although a variety of cultures share many traditional masculine beliefs, across racial and ethnic groups, emphasis on certain gender role expectations may vary in importance (Wester, 2008). For example, African American men have been reported as more expressive in their communication style than European Americans; therefore, they may perceive

themselves less negatively for sharing their struggles with a mental health professional (Sue & Sue, 2008). Asian Americans on the other hand are less likely to seek professional mental help compared to European Americans (Mojaverian et al., 2013). This difference was attributed to cultural stigma's emphasis on emotional restraint (Sue & Sue, 2008), and endorsing informal help-seeking (reliance on close social networks) as opposed to formal sources of help (Mojaverian et al., 2013).

Ethnic minorities may be likely to have higher levels of stigma and a negative view toward mental health illness and mental health services (Vogel et al., 2011). Those belonging to cultural groups with collectivists beliefs and attitudes may face higher levels of self-stigma related to seeking support from mental health services (Goldston et al., 2008). In this context, the importance of preserving familial harmony and avoiding bringing shame not only on oneself, but also on the entire family may increase the self-stigma of help-seeking (Shea & Yeh, 2008). Similar findings have been reported in Middle Eastern Americans who internalised the stigma of help-seeking propagated in the family and larger community (Soheilian & Inman, 2009).

In NZ, Māori adults are at higher risk of experiencing anxiety and depression than non-Māori (Lee et al., 2017), and there is evidence for significant underreporting, under-diagnosis, and less access to treatment for emotional distress in Māori (Theodore et al., 2022). These disparities were more severe in high deprivation areas (Theodore et al., 2022). Despite commitment to family and relationships being highly valued in Māori culture (Warbrick et al., 2016), studies on needs or perceptions of Māori fathers are very limited. Elkington (2017) in a qualitative study reported Māori young fathers (18-25 years old) wanting to spend time with their children, and high quality whānau (family and extended family) relationships helped fathers fulfilling their responsibilities. However, they also faced difficulties such as struggling to attend parenting programs due to financial and familial

responsibilities and some viewed the programs as inadequate in meeting their needs (Elkington, 2017). In a qualitative study of sedentary Māori men's views on physical activity, Warbrick et al. (2016) reported that participants' responsibility as a father and a provider meant prioritising their family over themselves including their own health (reducing physical activity). There is a need for better understand for health and mental health of fathers across cultures in NZ.

Research outline

The overall aims of this research project were to better understand the experiences and perceptions of men on their fatherhood journey, including facilitators and barriers to help-seeking (not limited to mental health), mental health literacy (MHL), and the role of social support in paternal mental health and parenting outcomes. Research on fathers' needs and mental health in a NZ context is limited. Therefore, the broader aim of this thesis was to generate findings that would be of value to fathers experiencing distress and to inform those providing formal or informal support to fathers. This project focuses on males in heterosexual relationships; however, it needs to be acknowledged that same-sex and non-binary parents also fulfil fathering roles.

In this thesis, we used a sequential mixed-method design which is divided into three studies and presented consecutively in order of their completion. Study 1 involved a series of comprehensive semi-structured interviews to explore fathers' experiences from partner's pregnancy to the postnatal period, and the ways fathers sought help during this transition. It was important to begin the research with an exploratory approach due to limited information of the topic, especially in a NZ context. In addition, the interviews provided rich information of fathers' experiences and perceptions of their role, coping strategies, and difficulties. In interviews fathers identified their partner as the most important person for seeking emotional

support; however, they felt support could not be requested during mothers' pregnancy and after birth. Fathers also provided accounts of experiencing distress but added that their distress was not severe enough to warrant mental health help-seeking. These qualitative findings then informed the subsequent quantitative phases. Study 2 utilised a large existing longitudinal data set (*N*= 2601) from *Growing Up in New Zealand*, the country's largest longitudinal study of child health and wellbeing. This study explored the role of social support, particularly partner support, in paternal mental health and parenting. Study 3 used a vignette design to experimentally examine factors associated with MHL in fathers in a sample of NZ and Australian adult men (*N*= 129). Study 3 also asked fathers about their help-seeking behaviour and their views on barriers to help-seeking. Together these studies help to illuminate fathers' experiences and challenges of help-seeking in the context of mental health.

2. Study 1: Fathers' help-seeking behaviour and attitudes during their transition to parenthood

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RESEARCH ARTICLE

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Fathers' help seeking behavior and attitudes during their transition to parenthood

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Abstract

New fathers face multiple changes as they take on this complex, demanding, and continually shifting role. The current study aimed to understand these experiences, especially the ways fathers seek help and information while facing stressful situations. Eleven fathers completed a semi-structured interview about their transition to fatherhood and whether and how they sought help and advice through that process. Results were analyzed using an inductive thematic analysis approach. Fathers viewed themselves as supportive figures and sources of financial and emotional stability for their families. Fathers experienced anxiety and uncertainty in their transition to parenthood, and utilized a variety of ways to cope with their stress; these were categorized into individual and interpersonal coping strategies. Most relied on their partner for emotional support, but some felt uncomfortable relying on her and using her for support while she was coping with pregnancy and new parenting. This study found that fathers tended to see themselves in a rather traditional role of provider and supporter of their partners and children, and this created some stresses for work-life balance, and, for some, created a dilemma where they felt unable to seek emotional support from the person—their partner—on whom they would typically rely. These findings have important implications for fathers' wellbeing and providing support programs for new fathers.

KEYWORDS
fathers and fatherhood, help seeking, mental health, transition to fatherhood

1 | BACKGROUND

The concept of fatherhood has changed for a new generation of fathers who are more involved in caring for their family and spending time with their children than their forefathers (Kaufman, 2013). For example, contemporary population research found that 73% of fathers believed they were more involved with their children than their own father had been with them. In addition, 58% wanted to be more involved in their child's life, and of these, 89% identified work-related commitments as the main barrier to involvement (Morton et al., 2016). Work-family conflict may be particularly evident in dual-earner households, with men adopting more caregiving roles within families

(Shafer & Wendt, 2015). Some have compared the modern male situation to when women entered the workforce in large numbers, while keeping their past roles such as being a mother (Aumann et al., 2011). Traditional gender roles portray men as the provider (Zuo & Tang, 2000), while modern norms of fatherhood include being caring and having a more hands-on role in daily child rearing (Deave & Johnson et al., 2008). These two potentially conflicting factors (being the primary provider and modern norms of fatherhood) can put pressure on men, which may in turn negatively affect their mental well-being (Kaufman, 2013). Fatherhood is a major life experience with possible positive and negative effects on men's mental wellbeing (Isacco et al., 2016). Positive impacts include shifts towards a healthier diet and reducing smoking and alcohol consumption and longer life expectancy for those having children after the age of 30(Shawe et al., 2019). With regards to possible negative outcomes, fatherhood has been associated with an increase in anxiety and stress, relationship conflicts and depression (Fletcher et al., 2006; Singley & Edwards, 2015). Meta-analyses indicate that up to 10% of fathers are affected by depressive symptoms during pregnancy and in the first year after birth (Cameron et al., 2016; Paulson & Bazemore, 2010). A recent meta-analysis indicated that marital and parental distress and maternal depression are important risk factors for fathers in the prenatal period (Chhabra et al., 2020). Poor health, stress, or lack of social and relationship support predict depression symptoms in the postnatal period among expectant fathers (Underwood et al., 2017). Men's well-being has a direct impact on the well-being of their parenting partners and their children (Bellamy et al., 2009). Therefore, it is important to understand paternal adaptation to parenthood and how to mitigate against these potentially negative outcomes for those at risk.

Given the conflict and distress experienced by many men in the transition to fatherhood, it is critical to understand how this might be ameliorated through help-seeking. Many studies have examined help seeking but it still remains a complex construct without a commonly referenced definition or standardized form of measurement (Rickwood & Thomas, 2012). The World Health Organization (WHO) has defined help-seeking as "any action or activity carried out by an individual who perceives herself/himself as needing personal, psychological, affective assistance or health or social services, with the purpose of meeting this need in a positive way. This includes seeking help from formal services – for example, medical staff, counsellors, or …programmes – as well as informal sources, which includes peer groups and friends, and family members" (Barker et al., 2007, p. 2). This definition is inclusive and relevant to the psychosocial situation of new fathers.

Existing literature highlights barriers for men in both formal and informal help-seeking (Isacco et al., 2016), such as masculine ideology that promotes self-reliance and conceals vulnerabilities (Addis & Mahalik, 2003) and a lack of father-oriented interventions (Giallo et al., 2017; Robertson, 2007). This is reflected in fathers' recruitment to parenting programs (Stahlschmidt et al., 2013). Not only are fathers faced with barriers with regards to utilizing and accessing these programs, but they also have low turnout to programs that they enroll in (Fletcher et al., 2006; Weinman et al., 2005). Most mental health interventions for new fathers have been designed for partners of women with perinatal depression (Davey et al., 2006; Hynd et al., 2005; Kowalski & Roberts, 2000).

There is some evidence that new and expectant fathers have been concerned about the scarcity of structured support for fathers and the lack of father specific programs with the aim of answering their own needs (Davey et al., 2006; Friedewald et al., 2005). A study by Deave and Johnson (2008) found that first time fathers typically felt ignored and frustrated at being excluded during the antenatal and postnatal period. Other barriers to fathers' help-seeking include a clinic's atmosphere and attitude; for example, some male clients could perceive the female dominated environment of social services as uninviting (Lee et al., 2011). The maternity and infant care workforce is typically majority female, so that there are very few male professionals that fathers will encounter in their interactions as a new father. The absence of male clinicians and mental health workers may also discourage men from seeking help, since some men prefer other men for counselling (Shafer & Wendt, 2015). Despite a growth in researching fathers' mental health and needs, it remains an understudied field (Giallo et al., 2017; Isacco et al., 2016). In particular, there is relatively little research available on fathers' help-seeking behavior and attitudes during the transition to fatherhood.

While research and clinical work on perinatal mental health has traditionally focused on mothers (Åsenhed et al., 2014; Fletcher et al., 2006; Weinman et al., 2005), some researchers have highlighted the perinatal period as an important opportunity for health care providers to engage with fathers (Panter-Brick et al., 2014). Fathers who participate in antenatal visits and classes may be open to examining health behaviors, and perhaps increasing awareness of the health and social services available to them. The aim of the current study was to examine the transition to fatherhood, positive and negative impacts, how fathers cope and seek support with these changes, and where they get information, support, and advice. The focus was on understanding barriers and potential opportunities to help-seeking for fathers, specifically the transition to fatherhood as a particularly challenging time. We were

interested in finding out what fathers need help with, including but not limited to psychological distress, child rearing and relationships.

2 | METHODS

2.1 | Recruitment

Participants had to be at least 18 years old and live in Waikato region of New Zealand. Eleven participants were recruited during 2018 and 2019 through noticeboards, social media, word of mouth, and paper advertisement distributed at the local university, daycare centers and other community centers such as sport clubs.

2.2 | Sample characteristics

All the participants were male fathers with female partners and born in New Zealand. Seven participants identified as Pākehā (New Zealand Europeans) and four as Māori (indigenous people of New Zealand). They ranged from early twenties to early forties in age (M_{age} = 33). Seven participants had university degrees. Nine were employed and two were full time university students, and most (9 out of 11) lived with their partner. The participants had one or two children aged 13 or below. The average age of the participants' children at the time of interview was 4 years old and their age ranged from 6 months to 13 years old.

2.3 | Procedure

This study was approved and overseen by Human Research Ethics Committee. A semi-structured interview guide with open-ended questions was used to explore participant experiences as fathers. The interview followed a chronological order (from conception through the first few weeks postnatal and beyond the immediate neonatal period). Participants were asked about their involvement in caring for the baby, their interaction with maternity care providers, change in the family dynamic after the birth of their child, coping with stresses of parenthood, what they liked about being a father, and the ways they got information and advice. The questions were adapted in response to information provided during the interview. The interviews were audio-recorded and transcribed verbatim. Participants were given the opportunity to check and correct or amend transcripts. Interviews were conducted face to face by the first author in locations of the participants' choice. The beginning of each interview was dedicated to introducing the topic and building rapport with participants. They were assured that all the provided information would be regarded as highly confidential, and no identifying information would be included in any dissemination of data; pseudonyms were assigned to participants and used in all reports. Fathers were quite open about sharing their experiences.

2.4 | Data analysis

Thematic analysis was used to understand the transcribed interviews. Qualitative analytic methods are appropriate for understudied topics and exploring relationships between themes (Bailey, 2007; Patton et al., 2002). Thematic analysis also provides a great degree of flexibility which allows for themes to be formed in a variety of ways, and further helps in interpretation of those themes supported by data (Braun & Clarke, 2017). Braun and Clarke's (2017) six steps were used; transcripts were read and inspected, preliminary codes were generated and assigned to the data, themes and patterns were identified across the transcripts, themes were reviewed and discussed with co-authors, each theme was named, and finally, themes were described, presented, and analyzed. Coding began after four interviews were conducted, and data collection was halted when saturation was achieved. The NVivo software program (Woolf, 2017), a qualitative data analysis tool for analyzing rich-text and data, was used to code and categorize the data into key subthemes and themes. The coding was conducted by the first author and the results were shared with the second author who provided feedback on the initial codes. Repetition of information in fathers' accounts and the codes was observed by the time the 10th and 11th participant were interviewed. An inductive approach was used in which common and important patterns were identified. In this approach, the emerged themes are strongly linked to the data and are not driven by a predetermined theoretical framework (Clarke & Braun, 2017).

3 | RESULTS

Results are presented under two main themes (see Table 1) centered on the key issues identified by fathers: (1) Being a support for my partner; and (2) managing stress. Each of these themes and the four subthemes within them emerged from answers to research questions regarding perceptions of men about their role as a father and their experiences in the context of fatherhood and parental help-seeking. Relevant quotes have been selected to illustrate the main findings.

TABLE 1 An overview of the themes

Themes	Subthemes	Characteristics
Being a support for my partner	I ca not do both	The conflict between being a provider and being a supportive father/husband
	I am a father: a new role	Fatherhood a significant change in life, an identity, and a source of pride and joy
Managing stress	Finding someone to talk to	Sharing their struggles with another individual or seeking help from someone
	You just got to deal with it	Fathers' ways of coping with stress that did not involve any other person. This reflected suppression of emotions, as well as helpful (e.g., exercise) and unhelpful (e.g., drugs or alcohol) intrapersonal ways of coping.

3.1 | Being a support for my partner

Most fathers described their role as being the supportive figure for their partner. They viewed their partner and their baby as the center of attention. Their role was defined by providing financial, psychological and emotional support for their partners and, later, their family.

Matthew discussed the importance of providing emotional support and reassurance for his wife during distressing times for her (pregnancy and especially birth).

> yeah, like there's a lot of emotional support necessary and reassurance and I think it's kind of the main thing is like when hormones are running rampant, being a figure of stability

Fathers sometimes felt ineffective in providing this emotional support for their partners. The birth experience was described as quite overwhelming; they knew they were supposed to comfort and support their partner, but they were not sure how.

> Lucas: I didn't know what the heck I was supposed to do so I just stood there, getting told what to do and getting told off, [sighs] it was ridiculous. It was stressful and as I mentioned it was a little bit unnerving, didn't really hundred percent know how to help my wife who was going through so much pain. I felt useless because I couldn't help her in any way as she was going through all of it…

Some midwives and other healthcare providers also seemed to perceive fathers' role as being the supportive figure for mothers, and catering to mother's needs. Fathers were reminded that they must keep a close eye on their partners and offer as much help as they could. When asked about what subjects were discussed with the midwife, Aaron said:

> Yeah, just mother and baby really and also how I could support so making that sort of say to me "make sure she's eating, make sure you're keeping her hydrated" and just make sure you help out, so the emphasis towards me was… I suppose keeping me in line with helping, yeah that was the main goal, I would say.

When asked about their interactions with midwives, most participants did not express concern about the fact that midwives or other healthcare professionals did not ask about their wellbeing and focused solely on the mother. They expressed the belief that the mother and the child were the priority and the focus should be on them, putting their own needs aside as part of the support role

> Oliver: I didn't really exist heavily but I was fine with that at the same time because you know it's about the baby… she [the midwife] was a bit more clinical in her approach but you trusted her…

3.1.1 | I cannot do both

This subtheme captures the conflict between being a provider and being a supportive father and partner. Most participants expressed an interest in being involved in supporting their partner and newborn child; however, work commitments were seen as a major barrier. Most fathers tried their best to go to scans, antenatal classes, and hospital appointments, but felt pressure and conflict between the demands of their work and need to be the breadwinner and the needs of their partner and child.

The birth process, difficulty with feeding, and sleep deprivation were significant sources of stress and exhaustion, that were experienced alongside on-going work obligations.

> Oliver: She got an epidural and that was after the first 24 hours because she needed to sleep. She didn't really want to but she ended up doing that and so when she was sleeping I

> was studying, trying to get ready for the exams but… yeah so the birth process was quite stressful.

Sean stated that he was under a lot of pressure due to the nature of his profession and found it difficult to juggle both work and parental responsibilities. Nonetheless, he was mindful of his partner's stress and the struggle of taking care of the baby at home all day.

> As soon as I come home my partner is shattered, she wants the baby off her and I've literally just finished work. I have just been working in [workplace] all day, I kind of just want to sit down for five minutes but I kind of forget that she wants to sit down for five minutes as well…

3.2 | I am a father: A new role

Being a father was also a shift in identity for most participants. They expressed love, pride and joy in being a father. Fatherhood was also a significant change in their lives; they spoke of putting their children before themselves and prioritizing their needs.

Mateo has been a parent for more than 10 years. He felt proud to be a father and hearing his extended family commending him for being a great father and praising his daughters was important to him. He added that hearing those comments meant a lot because he knew he had contributed to their upbringings. He explained that he was faced with a choice, either to be absent and only care about his own enjoyment or to "step up" as a father. He chose the latter.

> Then hearing family members and whānau [family and extended family] saying your girls are so awesome. To a father that makes you feel proud because you have had a hand in bringing those kids up… It was an unplanned baby… but when I thought wow – I've been given a lifeline here, I've been given a gift, a taonga, pounamu [a treasure, traditional carved stone]– use it. What would you rather do? Go inside for the rest of your life or drink and be idiots or step up and be a father. So I stepped up and be a father. Even my father saying proud of you son, the dad you have become and you haven't followed my footsteps and you have done your own path.

Some fathers agreed that most of the attention of healthcare professionals should be dedicated to the mother and the baby; however, they felt pushed aside and felt that the father-child relationship was being ignored.

> … For the most part I was pretty happy with the experience and I think in New Zealand we are particularly lucky… like there could be an argument to be made that there is no focus about bonding, and dads are very much pushed to the side. It's about mums and it's about the birthing process and it's about the children……

In summary, fathers saw their role as being supportive, and it was their duty to provide for their family. They also wanted to spend more time with their children, and help with childcare, but struggled with being both a provider and a "good dad." These interviews revealed that most men were comfortable with the main focus of midwives and healthcare professionals should be on the mother and the baby; however, this left some fathers feeling uncertain about how they could help, and not knowing where they could get support for themselves.

3.3 | Managing stress

This theme explores some of the difficulties with parenting, and how men countered these stressors. Fatherhood brought both joys and difficulties. Men viewed family, friends and healthcare providers as major sources of support as they became parents.

Both parents had to adapt to a new a lifestyle and routine. Most fathers reported that the first few weeks after birth were quite difficult.

> Benjamin: The hardest thing I've ever done in my life. The first three days we didn't really sleep. My wife didn't sleep the night the baby was born or the next day. She went about 2.5-3 days without sleep. For me, I maybe got a half hour here and there, but every time we put the baby down to sleep and then she started screaming again. I would compare it to some kind of psychological torture…

Cooperation and teamwork meant some fathers could rest, regain their energy and continue supporting their partner and child.

> Benjamin: So I was very fortunate, my wife and I work well as a team, so if I'd had enough I could just give the baby to her and if she'd had enough she could give it to me, and we would work as a team.

Being a father was also a source of enjoyment and pride for fathers. Many participants talked about their love for their new baby and despite all the hardship, they loved their family and were glad to be a father. Recognizing this love and connection was described as ameliorating the stress.

> Benjamin: I guess, yeah, you get the stress and the anxiety and the pressure and everything builds up, but then you have those moments of looking at this precious little angel and I don't know, it all just melts away.

Although pregnancy can unite a couple, it can also lead to conflict. Aaron talked about struggling with depression, not feeling connected to his spouse after his child's birth, and seeking formal support.

> I suppose we weren't connected to each other and connected as a family…
>
> I: As a result of you being away?
>
> Being away and probably not being present when I was at home and I sort of found out now it was probably because I was struggling with depression and anxiety and I went into a big meltdown I guess so from there I went to see just a counsellor.

Fathers experienced several stressors during their transition to parenthood, such as work-life balance, financial issues, and concerns about the health of their partner and baby. They described different ways to deal with their stress. These could be grouped into two broad subthemes: interpersonal, help-seeking strategies; and individual (or intrapersonal) coping strategies.

3.3.1 | Finding someone to talk to

This sub-theme describes the ways in which fathers shared their struggles with another individual or sought help from someone.

Partners were the main source of support for men. Some participants found it easier to talk to their partners than to other people, both during and after the pregnancy. They trusted their partner more than anyone else, and they also relied on their knowledge for anything child care related.

> Jack: Because obviously I trust her… she does her research, she is very clued up on everything like that. She has always got an answer if I have a question really. So… yeah, I honestly don't look outside of her most of the time.
>
> Isaac: If I had something to get off my chest I'd still talk to Sarah.
>
> Sean: It kind of gets to a point where I crack once in a while, and finally talk to her and my partner says look, you know you can come talk to me and I say to her, you are stressed out [after the pregnancy] as enough as it is…

Matthew preferred to talk to his friends rather than his partner and family (parents) about his problems, because he did not want to worry his family.

> I would probably divulge more to friends than I would to my family. Just because you know, like I want for them to feel like it's going okay…

Aaron sought support from professional mental health services. He had suicidal thoughts after an argument with his partner. He sought help from his general practitioner due to severity of his distress.

> We had a really rough night the night before and then I started having like suicidal thoughts on that day…and then that Monday I decided I had to go to the doctor to change some things in my way of being. They put me on antidepressants, they got psychologist organised…

Family and friends provided a range of practical, and emotional support. Mothers and mother-in- laws played an important role in providing support for the partner, relying on their experiences as being mothers themselves.

> Mateo: The mother-in-law and my sister-in-law and my mum and whānau [family] were always there. The mother-in-law was always on the phone if we needed anything.
>
> Isaac: We had some friends of ours move in and so it was like any kind of support that we needed, people checking on me… They were able to just jump in and take care of the kids or to be involved in what we were doing and we really felt supported.
>
> Oliver: My mum being a nurse, you know we trusted her information so she was really

> heavily involved. She is really child orientated obviously so we got a lot of good information from [her]

Effective support from healthcare professionals reduced distress for fathers and their spouses during and after pregnancy. They were also an important source of knowledge for fathers.

> Lucas: My parents they were telling me how to be supportive, just how to support but the midwife was really the one that taught me about the process and what was happening and how it's going to go, how everything is going to happen.

Telephone health information helplines were recommended by a number of participants. They explained that knowing there was someone who provided relevant information and reassurances was a huge relief.

> Bill: what has been amazing was the Plunket [Child health agency] Helpline.

> Yeah, so we rung them when we didn't know what was happening or sick or something, we would ring them a lot and they were very helpful

Negative experiences with healthcare providers exacerbated stress in fathers. Sean was suspicious of their midwife's practice, implying that she may have not recommended hospital to secure her monetary gains.

> We heard later on that apparently if… they have to induce or there is any hospital intervention the midwives actually get paid less. So we're not sure if that has anything to do with it

He also noted that there was no psychological support offered by healthcare professionals for the fact that his partner was struggling to feed the baby due to a medical condition. Sean explained that it took a heavy toll on his partner.

> We had issues with feeding… he had the tongue tie… Her nipples were really really sore because he couldn't latch properly and he was just damaging them to hell. So we got a lot of support with that but… there was no mental coping strategies [for her] that were introduced about it. Like there was a lot of "ah here is nipple shields… keep trying", there was no… That's the thing especially my partner, it really got to her mentally

In summary, some fathers relied on a variety of people, including their partners and friends to seek support. The support they sought from the health professionals was mostly in relation to their baby's or partner's health, rather than their own wellbeing.

3.3.2 | You just got to deal with it

This subtheme refers to fathers' ways of coping with stress that did not involve other people. Some, such as Oliver, described using drugs or alcohol to manage their stress:

> Oliver: At the time you just got to deal with it… I'd just have a cone [cannabis] before I went to bed. I don't anymore and I have cleaned up but just during it I felt that I needed something

Some, like Mateo, exercised to reduce their stress.

> I would sort of every now and again probably just go to the gym. I'm a pretty active person, so the gym was probably my solitude of trying to let some stress out if there was no one around.

Other participants framed some of the stressful situations they experienced as "normal" at the time. They gave little weight to their distress and claimed that they were not "severe" enough to require immediate or professional help. They normalized the difficulties they experienced; for example, Benjamin mentioned that everyone deals with these stressors, so why would his situation be any different. He also referred to a Kiwi saying "she'll be right."

> I never went to a GP about any of that. I don't know, it just goes back to that you just assume it is normal. Everyone has got to deal with it, so why should your case be any different? Maybe it is that New Zealand mentality of she'll be right, harden up.

Most fathers did not feel that their stress or distress was unusual or indicated a need for professional intervention. Some were more comfortable with seeking informal help (e.g., talking to family and friends) but even that posed a problem; those who sought help from family were worried about talking behind their partner's back. Some felt that

sharing their relationship problems with their own family would alter the family's perception of their partner and would create animosity between them. Therefore, most participants did not share many of their specific concerns or distress with others, even when they had approached them for support.

> *Sean: there is a lot of personal stuff that she didn't want my mum knowing really but I needed to talk about it [but I did not]…*
>
> George: No just each other mostly. Occasionally parents, but wouldn't be like, like she could go talk to her mum completely in depth and that's fine, whereas me with my parents, not so much, like I can still talk to them, but, I be careful what I say because I don't want to alter their opinions on anything…

Partners were the main source of emotional support, but fathers felt guilty expressing their own needs when their partner was heavily pregnant or had just given birth. Some participants felt it was "wrong" or "selfish" to seek emotional support or affection from their partner.

> and she still says come talk but I still can't bring myself to put my feelings on her… especially when sometimes my needs do feel a bit selfish, whether not getting any affection from her or cuddles because she has got the baby on her, little things like that

There are a variety of different approaches to managing the stress of new fatherhood. Families offer help and support, but they can be experienced as intrusive, and some men were protective of the impressions they might develop if they talked frankly. Some fathers appeared to be cautious about seeking help because of concern it might cause conflict or threaten their privacy. Some fathers were happy to rely on healthcare professionals, while others did not feel their problems merited this step. For many men, the partner was the primary source of support, but also one who they saw as stressed, and so they were hesitant to burden her, and turned to more individual coping strategies.

4 | DISCUSSION

The aim of this study was to explore the transition to fatherhood, positive and negative impacts, how fathers cope and seek support with these changes, and where they get information, support, and advice. The study was based on the view that fatherhood is an important transitional period for men, and little in-depth qualitative research has previously been dedicated to well-being of new and expectant fathers compared to mothers (Wong et al., 2016). We found that fatherhood is associated with many positive and negative experiences, such as bonding with the baby, and feeling distressed by demands of parenting. A novel finding was that some fathers described having limited ways of seeking help, and their mainstay—their partner—was not perceived as available at this crucial time. Fathers also experienced difficulty with balancing their role as providers and fulfilling their responsibilities as modern fathers.

4.1 | Stress of two roles

Being a provider and trying to be a caring father at the same time was identified as a source of stress for some fathers. It was very important to men in our study that their family was financially secure. Most men in this study perceived themselves as the support figure for their partner and child. They provided different types of support but identified their primary roles as being the breadwinner and a source of emotional stability. Fathers reported that others, such as midwives, their in-laws, and their own families, also viewed this as their primary role. These findings suggest that fathers are retaining their traditional role as breadwinners, as well as adopting additional responsibilities (the care of children in particular) (Churchill & Craig, 2021; Williams et al., 2013). These new roles and responsibilities during the transition complicated their personal journey to fatherhood.

Childbirth was described by fathers as a completely new experience. Swedish fathers have found their presence in the birthing room more demanding than originally anticipated; they particularly felt unprepared for the delivery process, their own reactions, and their partner's agony and pain (Ledenfors & Berterö, 2016). Similarly, fathers in this study described feeling out of their depth and uncertain of how to help during the process of labor and delivery. Many fathers in our study also found the first weeks after birth very tiring and stressful, due to sleep deprivation, learning new parenting skills, and adjusting to a new lifestyle. Fathers emphasized the importance of cooperation with their partners when it came to childcare. These findings appear to reflect the changing role of modern fathers (Aumann et al., 2011; Deave & Johnson, 2008). Men in this study described themselves as supporting their partner in childcare. Their partners would reciprocate, so men could rest before going to work. This was an effective way for fathers to bond with their family, fulfil their role as the support figure and to receive support from their partner to reduce their fatigue.

A study of Israeli divorced custodial fathers showed that despite facing similar tasks and obstacles as their parenting partners, fathers sought and received less help (both formal and informal) during and after divorcing their spouse (Cohen & Savaya et al., 2000). The authors attributed this phenomenon to the importance of self-reliance and independence to fathers. Similarly, the new fathers in our study often hesitated to reach out for help—"You've got to deal with it." Many viewed fatherhood as an identity which involved putting their partner and family's needs above their own (e.g., working long hours and sleep deprivation). For participants, making these sacrifices was an admirable act and built resilience. This conceptualization made coping with anxiety and sleep deprivation easier. Being a father gave participants a sense of purpose. This finding is in line with the positive psychology/positive masculinity (PPPM) model (Englar-Carlson & Kiselica et al., 2013); this strengths-based approach aims to help male clients identify positive aspects of their masculinity (e.g., worker-provider, male ways of caring, or self-reliance) and thus use them to improve their wellbeing (Englar-Carlson & Kiselica, 2013). Fathers may respond well to conversations centered on the importance of self-care to be able to fulfil their fatherly roles. Health professionals could use these conversations to encourage fathers to seek help by describing appropriate help-seeking and self-care as a responsibility, rather than a deficit, for new fathers.

Many participants reported working hard, and trying to give their partner a break, accompany her to appointments and scans, and be involved in infant care (e.g., putting the baby to asleep). Our findings concur with existing research highlighting work-family conflict as a primary concern for contemporary fathers (e.g., Shafer & Wendt, 2015). Work-family conflict may continue to increase as fathers adopt more childcare responsibilities while maintaining their role as the financial provider (Allard et al., 2011). Father-oriented interventions can address barriers (e.g., women-centered prenatal support, lack of fathers' participation in health services) (Giallo et al., 2017; Robertson, 2007) by identifying and accommodating fathers' needs. This could include more flexible parental leave for fathers and educating employers about the stress of fatherhood. Antenatal classes and healthcare providers can also focus on aspects of wellbeing that are important to fathers such as the ability to provide care and support for their family (Darwin et al., 2017). Furthermore, healthcare providers could conduct wellbeing checks for fathers and lead conversations around paternal wellbeing and acknowledgment of the difficulties of being a new parent. Future research could explore the types of help and the modes of help preferred by fathers, as well as beliefs and attitudes on masculinity and their relation to potential barriers to help-seeking. The impact of these help-seeking and other coping behaviors on mental health across time could also be examined using a longitudinal quantitative design.

4.2 | Dilemma of closeness

Men sometimes find it difficult to know when and where they can seek help regarding their day-to-day distress. There is evidence that men's intimate partners are often their main source of emotional support (Åsenhed et al., 2014); however, mothers may not be able to fulfil this role during pregnancy and the postnatal period, as both parents are focusing on caring for their new-born. This was consistent with the experiences described by fathers in our study; for most, their partner was their main source of emotional support, and many felt unable to lean on her during this challenging time. On the one hand, this speaks to the closeness of these relationships; however, when fathers rely exclusively on their partners, they risk being unsupported in one of the most stressful transitions of life.

Our findings show that friends and extended family also played an important role in supporting fathers; some of their support was practical (e.g., helping with childcare just after birth), and some was emotional (some fathers shared their problems with family and friends). However, there were limitations on these sources of help: fathers described their friends' inability to relate because of their lack of shared experience, and they worried about fomenting criticism of their family toward their partner. This presents a dilemma for these men, whose most usual sources of interpersonal support are not seen as available at this key time. Social support has a significant impact on fathers' mental health; fathers with effective social networks are less likely to experience parenting and marital conflicts (Aycan & Eskin, 2005). Limited social and emotional support can add more stress to a father's life, which is associated with an increase in psychological disorders (Paquette, 2004). Considering fathers' overwhelming reliance on their partners for emotional support, mothers' experiences of postnatal depression may, in turn, increase fathers' vulnerability to psychological distress.

In absence of usual interpersonal support, fathers used other methods to cope with stress. For example, substances (marijuana and alcohol) were used as the primary coping mechanism by some of the participants. Recent studies which have examined men's coping mechanisms with regards to psychological problems have found that substance use and other risky behaviors seem to be correlated with psychological suffering (Bilsker et al., 2018; Liu & Iwamoto, 2007). These coping behaviors have been attributed to masculine ideologies that endorse masking

or ignoring negative feelings and avoiding reliance on health professionals and other people (Hammer et al., 2013). Such beliefs, if combined with isolation and absence of meaningful relationships, can increase the risk of suicidal behavior (Bilsker et al., 2018). The current findings extend extant literature and provide a window into potential reasons behind these coping strategies. Many fathers normalized and gave little weight to their stress and problems. The idiom "she'll be right" was used; it is a popular idiom in New Zealand which means most problems will right themselves with time. The participants were quite descriptive about their distressing experiences, and their impacts on their wellbeing, but most did not view their situation as "severe" enough to seek formal or informal help. This phenomenon may have occurred because fathers were simply prepared for the stress and may not have needed help (Palkovitz & Fagan, 2021) or perhaps they were not aware of the ways that stress can cause problems in health and wellbeing, and did not know what levels and types of stress are problematic and can be improved by seeking help and learning new strategies to cope.

Health professionals were an important source of knowledge for fathers. Many participants recommended Plunket Line (a free parent helpline in New Zealand which provides information on children's wellbeing and health). They also sought advice from midwives; however, most of this help-seeking was focused on the health and welfare of the infant or partner, rather than their own wellbeing. Providing information about how health and social services, as well as informal (such as peer) support can provide both practical and social benefits might encourage fathers to expand their help-seeking repertoires.

Midwives play an important role in prenatal care and childbirth in New Zealand; participants who had a positive relationship with midwives described a more positive transition to fatherhood. Men respected knowledge and seemed more likely to form a positive relationship with the midwife if they perceived her as competent. Ledenfors and Berterö (2016) looked at first time fathers' experiences of normal childbirth, and suggested that good communication with the midwife reduced fathers' fears and vulnerability. For our participants, birth was a new and potentially stressful experience. Fathers' expectations from pregnancy and birth might not match the reality after the child's birth. This mismatched expectation is considered a risk factor for paternal depression (Chhabra et al., 2020). Maternity caregivers could help by providing information about realistic expectations and strategies for coping that address the needs and roles that new fathers are growing into.

Our fathers reported that fathers' well-being or mental health was not discussed by most healthcare professionals. They understood the reasoning behind the emphasis on mother and infant's health; however, some felt their needs as fathers were not recognized. Most available resources on pregnancy and childbirth are mother-oriented, and fathers are often depicted as "outsiders" (Wong et al., 2016). Engagement with pregnancy-related health services may be a missed opportunity to engage fathers. By establishing a rapport with fathers, maternity caregivers can help create a positive birth experience for both parents, which in turn may increase fathers' child care involvement. Healthcare and maternal health services could initiate conversations with both parents about the stresses of being a new parent and share resources about parental mental health. Antenatal classes and postnatal depression support groups could organize additional support groups for new fathers. Men are more likely to adopt norms that are modelled by other men (Carli et al., 2001); therefore, parental services can utilize peer support to better engage fathers. These findings add to the current literature and highlight the importance of preparing and educating fathers for birth.

This study indicated how fathers' perception of mothers' "unavailability" during pregnancy and the postnatal period discouraged them from seeking emotional support from their partners. Future studies could explore the accuracy of this perception (e.g., fathers may be overestimating their partners' distress; mothers might welcome fathers to share their struggles with them), and perhaps investigate how to guide fathers through what may seem a daunting task of sharing their own concerns with an exhausted, perhaps prickly partner.

Future studies could also explore when fathers think it is appropriate to seek support and what factors affect their decision to do so. There is a lack of research on stigmatization of help-seeking but the available studies show that it is more common among men than women (M. E. Addis & Mahalik, 2003). This kind of stigma has real and major consequences for help-seeking acts. As a result, men may mask their distress and attempt to control how they are perceived by others (M. Addis, 2011), missing out on help at a critical time in the family life cycle.

4.3 | Limitations

This study included a small group of fathers who volunteered to discuss their experiences; therefore, the findings cannot be generalized to a broader population, but provide some in-depth insight into the experiences of these men. For some fathers, this was up to 13 years ago and their recall may have been impacted by retrospective bias. These participants volunteered for a study knowing they would be talking about the experiences of early fatherhood. It is possible that fathers who are less reflective or less focused on their identity as fathers were less likely to volunteer for

the study. How fathers coped at the time of their transition to parenthood (stress and conflict over their new role) could influence how they later recall their experiences. Events that have occurred since this transition, such as marital separation, child development, and the trajectory of fathers' own mental health could all influence fathers' retrospective recall.

Lastly, there is a notable gap in research on the experiences of men from different socioeconomic and cultural upbringings. The participants tended to be more highly educated than the general public, but did include four who identified as members of New Zealand's Indigenous Māori culture. Our findings do not inform us about more gender-diverse parenting situations. While this study focuses on male fathers in heterosexual relationships, same-sex parenting partnerships and/or non-binary parents may also adopt a father role. Further research with these groups will help to tailor supports within perinatal care for fathers.

5 | CONCLUSION

Fathers described themselves as financial providers for their family, and a figure of stability and emotional support for their partner, while also navigating their own personal journey to parenthood. Their roles and responsibilities were reinforced by partner, community and professional expectations. Fulfilling these responsibilities was challenging for them, but they relied primarily on internal and informal supports. Our participants used a variety of ways to cope with their stress; most were individual and some interpersonal. Fathers tended to downplay and normalize their distress, despite describing intense pressures and strong feelings.

Fathers' primary source of support was almost universally their partner, and this presented a dilemma, as they felt it was not appropriate for them to rely on their partner when she was also experiencing stress. For some, this meant reliance on internal, and sometimes unhealthy strategies to cope with this stressful time. Healthcare providers who work with young families, and parental educational materials could highlight this dilemma and provide encouragement for couples to discuss and plan how they can support one another. This may include creating networks for new fathers to come together informally and build peer support. This study highlighted the importance of exploring ways to support fathers during their transition to parenthood and to encourage or empower those who need help to seek the help they need, especially since fathers are less likely to seek help from the most trusted person in their life, their partner, during her pregnancy and after birth.

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3. Study 2: The relationship between social support, distress and parenting in fathers: Findings from *Growing Up In New Zealand*

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Abstract

Parenting an infant can be a turbulent and challenging time for men; social support may play an important role in managing paternal distress. The current study aims to understand the role of social support, particularly partner support, in fathers' mental health and parenting. It was hypothesised that: (1) greater social support would be associated with lower paternal distress; and (2) fathers' experience of social support would moderate any negative effects of distress on later parenting (at child aged 9 months or 2 years). Participants were fathers (N = 2601) of *Growing Up in New Zealand* children; data for the current study was collected during pregnancy and when the child was 9 months and 2 years old. Results indicated concurrent associations (antenatal and postnatal) in the direction expected between fathers' psychological distress and partner support, and, to a lesser extent, other informal support (friends and family, excluding partner). Although significant, the magnitude of the associations was small. There were no significant longitudinal associations between earlier social support and later psychological distress. Contrary to our second hypothesis, partner support in infancy did not buffer the negative association between distress and parenting at child aged 2 years. Findings suggest that partner support is uniquely important to fathers' concurrent mental wellbeing; however, further research is needed to understand associations across time and predictors of later parenting. These findings have important implications for health professionals' engagement with fathers.

The relationship between social support, distress and parenting in fathers: Findings from *Growing Up In New Zealand*

The importance of fathers' involvement in child development has been increasingly recognised (Cano et al., 2019) by including fathers in maternity care and child development and viewing the whole family as a unit (Kochanska et al., 2008). Fathers have been adopting more child-rearing roles (McCaig et al., 2022) and have unique and positive impacts on their children's wellbeing and development (Dempsey & Hewitt, 2012; Kuscul & Adamsons, 2022; Pryor et al., 2014; Ragni et al., 2019). Paternal involvement is associated with better child cognitive and social functioning (Cabrera et al., 2007), health outcomes (Wong et al., 2017), emotional regulation (Mills-Koonce et al., 2011), better educational outcomes, and fewer behavioural problems (Kvalevaag et al., 2022). Fathers' participation in child rearing has been positively associated with father-child relationship quality and an improvement in marital quality (Galovan et al., 2014). However, very few longitudinal studies have included fathers from the antenatal period (Pryor et al., 2014), yet the perinatal and infancy period is critical for establishing the parent-child relationship with long-term impacts on child development (Bakermans-Kranenburg et al., 2019). The current study therefore represents a unique opportunity to understand associations among social support, fathers' distress, and fathers' parenting outcomes across this critical developmental period.

A meta-analysis of over 40 studies found that 10.4% of fathers experienced depression in the antenatal and postnatal periods (Paulson, 2010). Although the impacts of fathers' and mothers' mental health problems are comparable (Woolhouse et al., 2016), child and family health providers tend to primarily focus on mother and child (Fisher, 2017). Possible reasons for this include difficulty engaging fathers, attitudinal barriers to help-seeking in men, perceived lack of expertise in healthcare providers and overlapping of health service business hours with fathers' own employment hours (Giallo et al., 2018). Research

highlights the need for health services to consider the whole family as a unit (Nomaguchi & Johnson, 2016; Raouna et al., 2021), support fathers to manage work-life balance and relationship/marital conflict, and build their parental confidence, social support, and coping skills (Giallo et al., 2018).

The new responsibilities of the modern father (e.g., adopting more caregiving roles) alongside often being a key financial support figure for the family (Pryor et al., 2014) can be challenging for men (Nomaguchi & Johnson, 2016). In the last few decades, fathers have had to balance their increasing parenting and caregiving roles with a competitive global economy that requires working for long periods of time (Stropnik et al., 2019). Some of the risk factors for mental health difficulties in recent fathers include poor work-life balance and job quality, economic hardship, poor relationship quality (Raouna et al., 2021), as well as work-family conflict, poor sleep quality and physical health, low social support, and having an intimate partner suffering from mental health problems (Seymour et al., 2014).

Much of the research on fathers' mental health has relied on clinical or small samples, which may not be generalisable to the wider population (Dudley et al., 2001), with depression being the primary focus (Ramchandani et al., 2008). For example, Isacco and colleagues (2010) found a negative association between paternal depression and anxiety and perceived co-parental support. This finding is in line with the literature which has found an association between depression and poorer parenting outcomes and interparental conflict (Giallo et al., 2014). Paternal depression in the postpartum has been associated with withdrawal from coparenting, feeling less respected by partner and showing low parental warmth (Price-Robertson et al., 2017; Wong et al., 2016).

Stress and anxiety are also important to investigate in fathers because they are a common cause of distress. One study of fathers' mental health post childbirth found

approximately a third of fathers may experience depression, anxiety, or other types of mental health problems (Bradley & Slade, 2011). Social support and specifically partner support can be an important protective factor for managing paternal distress (Castillo & Sarver, 2012); however, social support in the context of fathers' parenting has not been extensively researched (McBride et al, 2022; Taylor et al., 2015). Understanding fathers' distress, its impacts (e.g., on parenting), and ways to manage stress, can lead to informed practices which will be helpful to fathers' wellbeing.

Friends and family can help fathers in various ways, such as providing emotional and financial support, transport, and childcare (Castillo & Sarver, 2012). These supports are related to a reduction in stress, an improvement in parenting, and social and behavioural outcomes for children (DeGarmo et al., 2008; Walker, 2010). Despite the evidence on the positive impacts of social support for families (Gill et al., 2021; Ishida et al., 2022; Vallin et al., 2019), most studies of family well-being have focused on social support for mothers (Husain et al., 2016; Leahy-Warren et al., 2012; Leahy Warren, 2005; Nolan et al., 2017). Social support for fathers has been identified as a key factor in increasing paternal involvement and higher quality parenting for cohabitating (Altenburger & Schoppe-Sullivan, 2020) and non-resident fathers (DeGarmo et al., 2008).

Men's intimate partners are often their main source of emotional support (Åsenhed et al., 2014; Ghaleiha et al., 2022); however, fathers may be hesitant to seek support during their partner's pregnancy and the postnatal period, as both parents are focusing on taking care of their infant (Ghaleiha et al., 2022). Yet men may also be reluctant to seek support from people other than their partners (Patulny, 2011). This presents a difficulty for men during their partner's pregnancy and early parenting period, since their most natural sources of interpersonal support are not perceived as available at this crucial time. Underwood et al. (2017) found that separated fathers were more likely to have high levels of depressive

symptoms. A cross-national analysis indicated that married men tend to be happier than single men (Lee, & Ono, 2012) and generally men tend to experience more distress after separation or spousal bereavement than women (Rudolf & Kang, 2015). This highlights the impact of partners on fathers' emotional wellbeing and a need to understand predictors of fathers' psychological distress and their subsequent parenting.

Our study aimed to address some of the empirical gaps surrounding fathers' distress by using a large community sample to investigate the longitudinal associations between social support and paternal distress, and paternal distress with parenting. *Growing Up in New Zealand* is a large, diverse longitudinal study with assessment points both antenatally and postnatally, and including measures of sources of stress and support, mental health and parenting variables at multiple Data Collection Waves (DCWs). Our project not only looked at social support for fathers, but also whether partner support played a unique role in fathers' mental wellbeing and buffered the negative effects of distress on parenting variables longitudinally. This study used several parenting measures including responsibility (day-to-day care of children), satisfaction (satisfaction with the parenting role), parent-child affiliation (spending time and interacting with children) and enjoyment (attitudes on being a parent).

The first research question aimed to explore whether social support predicted psychological distress in fathers. The role of partner support and its importance compared to other types of informal support was investigated. Understanding the relationship between social support and new fathers' distress has important implications for fathers' wellbeing and targeting support programs for new fathers. It was hypothesised that greater social support would be associated with lower distress both concurrently and longitudinally. Based on research suggesting partner support is particularly important for fathers, we predicted that partner support would be a unique predictor of distress over and above covariates and other

types of support. The second research question aimed to determine if social support buffers the impact of distress on parenting variables. We predicted that social support (and again partner support in particular) would buffer a negative relationship between distress and later parenting variables.

Method

Participants

Participants were fathers of children in the *Growing Up in New Zealand study*, a large-scale, pre-birth longitudinal study (Morton et al., 2014). Data for the current study is drawn from the antenatal, 9-month and 2-year DCWs. The current sample included resident (cohabitating with the biological mother) fathers who had participated in antenatal, 9-month and 2-year DCWs (N =2601).

Growing Up has followed approximately 7,000 children who lived in three demographically diverse regions of NZ, born between April 2009 and March 2010, with a goal to continue until 21 years of age (Morton et al., 2010; Morton et al., 2014). The cohort of children is broadly generalisable to births in the country with regards to both socioeconomic status and ethnicity (Morton et al., 2013).

In this sample, fathers' age at the antenatal DCW ranged from 16 to 64 years, with a mean age of 33 years (SD = 6.35). The majority (57.7%) of participants were between 30 and 39 years and 2% were below 20 years. Most participants (99.3%) were biological parents of their children. Most fathers (96.8%) were in a relationship with the baby's mother during pregnancy. More than a third of participants (36.5%) had a university degree and over 80% were employed when their partner was pregnant.

Table 2

Demographic Information for Sample of Fathers Included in the Current Analyses

	Mean (SD)	# (%)
Paternal characteristics		
Age in years	33.04 (6.35)	
Self-prioritised ethnicity		
New Zealand European		61.9
Māori		9.8
Pacific peoples		10.0
Asian		12.9
MELAA and Other		5.3
Highest education		
No secondary school qualification		6.5
Secondary school/NCEA 1-4		20.1
Diploma/Trade certificate/NCEA 5-6		36.9
University degree		36.5
Area deprivation		
New Zealand Deprivation Index (1-10)	5.59 (2.86)	
Rurality		
Main urban area		82.9
Satellite urban/rural areas		17.1
Child parity		
First born		41.4
Subsequent		58.6

Note. MELAA = Middle Eastern, Latin American and African, NCEA = National Certificate of Educational Achievement

Measures

The list of measures used in the current study are presented at Table 14.

Demographics. Participants were asked to self-prioritise their main ethnicity and were also asked to select their age (Morton et al., 2010). Fathers also reported their highest level of education (see Table 2). Rurality was categorised to main urban and satellite urban/rural areas. Lastly, the New Zealand Deprivation Index (NZDep) categorises geographical areas based on socioeconomic deprivation ranging from 1 (lowest deprivation) to 10 (highest deprivation) (Salmond et al., 2007). Area deprivation was based on NZDep scores from the child's residence.

Edinburgh Postnatal Depression Scale (EPDS). This 10-item self-reported scale for perinatal depression was used to screen for depression at the antenatal DCW (Cox et al., 1987). Although originally developed for mothers, the EPDS has been found to be effective in several populations of fathers (Anding et al., 2016; Edmondson et al., 2010). Items ask about mood and anxiety symptoms over the last week. For example, "I have felt sad or miserable" and "Things have been getting on top of me". Responses to the 10 items are rated on Likert scales from 0 to 3 and the sum of scores ranges from 0 - 30. The Cronbach's α for the EDPS for this sample was 0.78, which is consistent with current literature (Carlberg et al., 2018).

Perceived Stress Scale (PSS). This 10-item self-reported global stress scale was used as a measure of paternal psychological distress at the antenatal DCW. The PSS was designed to measure the subjective stressfulness of an individual's experiences over the past month using a five-point Likert scale (Kamarck et al., 1983). The PSS has demonstrated adequate reliability (Cronbach's $\alpha = 0.75$ to 0.91) and validity (e.g., expected correlations with negative life events and health behaviour) (Kamarck et al., 1983; Katsarou et al., 2012). Items

include “In the last four weeks, how often have you felt nervous and stressed?”. Responses were coded from 0 (never) to 4 (very often), with four reversed items. The Cronbach’s α of the PSS for this sample was 0.82 which is consistent with other studies examining perceived stress among fathers (Gao et al., 2009).

The Patient Health Questionnaire (PHQ9) is a nine-item questionnaire designed as a brief screening tool for depression symptoms (Löwe, Kroenke, Herzog & Gräfe, 2004). The PHQ9 was used as an indicator of paternal psychological distress at the 9-month DCW. The PHQ9 is widely used, and previous studies have indicated its validity and sensitivity to change for measuring depression outcomes (Searle et al., 2019; Gilbody et al., 2007). It begins with “Over the last 2 weeks, how often have you been bothered by any of the following problems?” for example “Little interest or pleasure in doing things”. Responses to the nine items were presented as 0 (no, not all), 1 (several days), 2 (more than half the days), 3 (nearly every day), and the mean scores were calculated, which ranged from 0-3. The Cronbach’s α for the PHQ9 for this sample was 0.76.

Sources of stress (SS). A total of six items designed for the *Growing* Up study (Underwood et al., 2017) asked participants to what extent the items were a source of stress for them and their families. This scale was used at antenatal, 9-month and 2-year data DCWs. The six items, rated from 1 (not at all stressful/not applicable) to 4 (highly stressful), were “worry about a disabled or ill family member”, “worry about current housing difficulties”, “worry about balancing work and family life”, “worry about money problems”, “worry about family members not getting on” and “worry about another child’s behaviour”. The responses ‘not applicable’ and ‘not at all stressful’ were combined into one response and then the sum scores were calculated and. The Cronbach’s α of the sources of stress for the current sample was 0.71.

Parenting Social Support Scale. This scale was adapted to suit contemporary NZ language, culture, and service systems from the Family Support Scale (FSS), which was designed to assess the helpfulness of different sources of support for families caring for young children (Dunst et al., 1984). The FSS has both internal consistency, and short and long term test-rest reliability coefficients which are psychometrically acceptable (Dunst et al., 1984; Littlewood et al., 2012). Twelve sources of support were listed, and participants were asked to rate the helpfulness of these sources; half were informal interpersonal support (e.g., partner, family, and friends) and half were formal or informational (e.g., family doctor, books, day-care). Ratings were made on a Likert Scale ranging from 1 (not available) to 6 (extremely helpful). The sum of the informal support sources other than partner (non-partner support) was calculated to examine whether partner support is fundamentally different than non-partner support (friends and family excluding partner). This scale was used at antenatal, 9-month and 2-year DCWs but only the antenatal data were used in this study. The Cronbach's α for this sample was 0.70.

Parental Responsibility. Two items asked how often parents participated in day-to-day care of their children. Responses were made on a Likert scale: 1 (not much of the time), 2 (some of the time), 3 (most of the time), and 4 (all of the time). Only two questions relevant to fathers' parenting were included: "To what extent are you involved in the day to day care of your [child/children], for example feeding, holding, changing?" "How much of the time are you directly responsible for your baby, for example, in sole care of him/her, making babysitting arrangements, looking after him/her if they are sick?" Parental responsibility questions from the 2 year DCW are included here. Cronbach's α of this sample was 0.531.

Parental satisfaction. This scale was adapted from 'What being the parent of a new baby is like' (WPL), a self-report instrument designed to assess parental experiences with infants and individuals' perceptions of themselves as parents (Pridham, & Chang, 1989). The

adapted scale in *Growing Up* measured satisfaction with the parenting role and comprised 11 items, including "How satisfying has being the parent of a new baby been for you?", "How much have the tasks of taking care of a new baby been satisfying to you?" with responses rated on a Likert scale from 1 (not at all) to 6 (completely). The sum score was calculated by adding the scores of items together. Parental satisfaction was only available at the 9-month DCW. The Cronbach's α for this sample was 0.43.

Parent-child affiliation is a 12-item questionnaire developed for *Growing* Up study and derived from child emotional security and interparental conflict studies by Davies et al., (2002). Items include questions about parent-child interactions such as "I enjoy having my baby [babies] around me" and "I like to spend time with my [child/children]". Ratings are made on a Likert Scale from 1 (almost never true) to 4 (almost always true), a high score reflecting a high parent-child affiliation and finally the sum score was calculated. Parent-child affiliation data from the 2-year DCW is included here and the Cronbach's α for this sample was 0.88.

Parental enjoyment is a six-item questionnaire created for *Growing Up* to assess parents' attitudes on being a parent. Items included "*On the whole, I enjoy being a parent*" and response rated on a Likert scale, 1 (strongly disagree) and 5 (strongly agree). Two out of the six items not related specifically to fathers' own parental enjoyment (e.g., "when I engage in caring for [child/children], the main reason is to help my partner") were removed before calculating the sum. The Cronbach's α for this sample was 0.70 and the questionnaire was used at the 2-year DCW.

Procedure

Recruitment

Pregnant women were recruited via multiple streams including information being given to prospective mothers at maternal care centres, community and cultural organisations, media coverage and antenatal programmes and hospitals (Morton et al., 2013). At the antenatal DCW, pregnant women and their partners participated in a face-to-face computer assisted personal interview (CAPI), usually conducted at participants' homes. If partners were not available, mothers were asked to provide contact details for their current partners. Fathers were contacted and interviewed independently (Morton et al., 2013). Partners were defined as those who had significant social relationships with mothers at the time of recruitment (Morton et al., 2010). Ninety-five percent of pregnant women reported being in a relationship (Pryor et al., 2014). Consent was obtained from a total of 4,404 partners (two thirds of all fathers) (Morton et al., 2010). Approximately 87% of initial interviews were completed prior to birth and 13% during the postnatal period (Pryor et al., 2014). Virtually all (4374, 99%) of partners were biological fathers of the index child (Morton et al., 2013). Four thousand ninety-four fathers (93%) participated in the second CAPI when the children from the cohort were 9 months old (Morton et al., 2014). At the 2-year DCW, 6242 mothers and 3804 fathers (86.4%) completed face-to-face CAPI interviews in June 2012 (Morton et al., 2012).

Data analyses

All data analyses were conducted using IBM SPSS v.29. To examine antenatal social support as the predictor of paternal distress, participants who had not completed the key measures (e.g., social support, partner support and distress) at antenatal and 9-month DCWs were not included in the current sample. Out of the 4,404 antenatal fathers, 2601 (59.06%) were used in this analysis. EPDS and PHQ9 were significantly skewed, and square root transformations were used to meet the assumption of normality in multiple regression (Field & Field, 2018).

To examine antenatal social support as the moderator of paternal distress on parenting variables, in addition to the above steps, participants who had not completed the parenting measures at the 2-year DCW were excluded from the analysis. This brought the total number of participants for the second research question to 2288. Across both datasets less than 3% of data were missing on any one variable (e.g., parental responsibility); in these cases, the missing items were replaced by the overall mean of that scale across all participants. Parental enjoyment and parental affiliation had skewness and kurtosis values of ±2, which is outside of the normal range (Kim, 2013) and the Shapiro–Wilk test showed non-normality for the other variables. These variables were transformed using square root to reduce skewness and increase uniformity (Field & Wilcox, 2017), and the probability plots did not indicate extreme outliers.

Bivariate correlations were used to assess association between continuous variables, independent sample *t*-tests for dichotomous variables and one-way ANOVAs for variables with more than two groups. Hierarchical regression was used to examine whether social support (partner and other sources) during pregnancy predicted distress in fathers at 9 months, after controlling for earlier mental distress and other covariates. Scatterplots demonstrated an approximately linear relationship between the predictors and the outcome variables, and the plots of standardised residuals indicated homoscedasticity in the data, therefore meeting the assumptions of linearity and homoscedasticity (Field & Wilcox, 2017). A total of four regression models were evaluated. The covariates were entered in the first block of the model, followed by distress variables, non-partner social support and lastly partner support. The available antenatal distress measures (EPDS and PSS) in the longitudinal model were entered as dependent variables for two concurrent models and PHQ9 at 9-months was the dependent variable for the two remaining models. Hierarchical

regression models minimise multicollinearity and allow for the predictors to be entered in blocks to evaluate whether they account for additional variance (Field & Field, 2018).

The moderation analyses were conducted with PROCESS macro v4.2 for SPSS (Hayes, 2017). PROCESS has been found to be robust to type II errors and violations of normality (Hayes, 2017). Twenty-four moderation analyses were conducted with each distress variable (EPDS, PSS and PhQ9) at antenatal as the independent variable, social support (partner and non-partner) at antenatal as the moderator, and each of the parenting variables at 9-months and 2-years as dependent variables. Sociodemographic covariates were also entered based on the preliminary analyses. PROCESS calculates the product of independent and moderation variables (interaction variable) and generates the proportion of variance in the outcome uniquely explained by the interaction variable (Hayes, 2017).

Results

Preliminary analyses

Assumptions and descriptive statistics. Means and standard deviations for distress, social support and parenting variables are presented in Table 3. Spearman's correlation coefficients between distress and parenting variables (outcomes) with social support and covariates (predictors) are shown in Table 4. Due to most variables being non-normal, non-parametric correlations were used. Partner support was negatively correlated with EPDS, r (2599) = -.146, $p < .001$, and area deprivation (NZDep) was positively correlated with parental responsibility r (2286) = .140, $p < .001$, and parental satisfaction r (2286) = .125, $p < .001$.

Preliminary analyses for differences on key demographic variables were conducted to determine which variables to use as covariates in regressions predicting distress. One-way ANOVAs indicated significant differences in EPDS scores as a function of ethnicity, F (4,

2596) = 4.32, p = .002. Tukey's HSD Test for multiple comparisons found the mean value of EPDS was significantly lower for European (x = 3.22) than for Pacific father (x = 3.92), p=.032. Furthermore, there were significant differences in PSS scores, F (4, 2283) = 4.21, p = .002, and Tukey's HSD Test for multiple comparisons found those with MELAA (Middle Eastern/African/Latin American and other) (x = 9.02, SD = 4.63) ethnicities reported significantly lower perceived stress than either NZ European (x = 10.63, SD=5.74) p =.004 or Māori participants (x = 10.75, SD = 5.37) p = .021. Sources of stress F (4,2596) = 2.432, p =.046, and Tukey's HSD Test were significantly lower for European (x = 11.422, SD = 3.56) than for Pacific fathers (x = 12.126, SD = 3.84), p =.030. Independent sample t-tests revealed that fathers with sons (x = 3.092) had higher PHQ9 (9-month) scores than those with daughters (x = 2.809) (t = 2.180, p = .029). No significant difference in distress was observed between fathers living in urban areas compared to those living in satellite urban and rural areas. Therefore, child gender and European ethnicity were included as covariates for multiple regression.

In order to identify covariates for the second set of analyses predicting parenting variables, preliminary analyses for differences on key demographic variables were conducted to determine which variables to use as covariates in regressions predicting parenting outcomes. One-way ANOVA showed significant differences in parental responsibility scores as a function of ethnicity F (4, 2283) = 3.611, p = .006, with European fathers reporting higher parenting responsibility scores (x = 4.732, SD = 1.33) compared with MELAA (x = 4.317, SD= 1.35) fathers. Independent sample t-tests were used to examine difference in main variables as a function of rurality. Fathers living in urban areas (x = 4.70, SD = 1.36) were more likely to be involved in parenting than those living in satellite urban and rural areas (x = 4.47, SD = 1.26) (t = 3.34, p = <.001). Area deprivation, rurality and child gender were therefore included as covariates for the subsequent moderation analyses.

Table 3

Means, Standard Deviations, and Ranges for Key Variables of the Sample

Variable	Mean (SD)
Distress	
EPDS (antenatal)	3.40 (3.59)
Perceived stress scale (antenatal)	10.32 (5.57)
Sources of stress (antenatal)	11.56 (3.64)
PHQ9 (9-month)	2.91 (3.07)
Parental support	
Partner support (antenatal)	4.84 (2.11)
Family support excluding partner (antenatal)	19.48 (5.10)
Parenting measures	
Parental satisfaction (9 month)	57.12 (5.40)
Parental responsibility (2 year)	4.66 (1.35)
Parental affiliation (2 year)	44.70 (3.87)
Parental enjoyment (2 year)	17.95 (1.78)

Note. $N = 2601$

Table 4

Spearman's Rho Between the Main Variables and the Covariates

Variable	Edinburgh postnatal depression scale (EPDS) (AN)	Perceived Stress Scale (AN)	PHQ9 (9m)	Parental responsibility (2y)	Parental affiliation (2y)	Parental enjoyment (2y)	Parental satisfaction (9m)
Partner support (AN)	-.146***	-.187***	-.003	-.023	.026	-.025	-.001
Non-Partner Support (AN)	-.039*	-.083	-.005	-.003	.041*	-.013	-.002
NZDep	.020	.019	-.029	.130***	.021	.007	.125***
Age	.011	.011	.001	-.017	.005	-.002	-.012

Note. AN=antenatal, 9m=9 month, 2y=2 years, ***$p < .001$, *$p < .05$.

Multiple regression analyses

Four hierarchical regressions were conducted predicting distress at antenatal and 9-month DCWs. Child gender and European ethnicity were entered as covariates at step one. Covariates, non-partner support and partner support were entered in standard hierarchical blocks. Antenatal distress measures were included in the longitudinal model to predict distress at 9-month. The regression models are presented at Table 5 and 6.

The first multiple regression found partner support at the antenatal DCW, but not other sources of support, was a significant predictor of concurrent depression symptoms ($R^2\Delta$= .019, β = -.073, *SE* = .010, *p* = <.001), having taken into account ethnicity and child gender. The second multiple regression model indicated partner support ($R^2\Delta$ = .03, β = -.473, *SE* = .021, *p* = <.001) and non-partner support ($R^2\Delta$ = .006, β = -.086, *SE* = .052, *p*= <.001) at antenatal were both significant unique predictors of concurrent stress symptoms. Partner support ($R^2\Delta$ = .003, β = -.021 *SE* = .008, *p*= .007) and sources of stress at 9-months ($R^2\Delta$ =.18, *SE* = .005, β = .109, *p* = <.001) significantly predicted depression symptoms concurrently in the third regression after controlling for covariates. In the fourth regression, distress variables (EPDS, PSS and sources of stress), and social support (partner and non-partner support) at antenatal did not significantly predict distress (PHQ9) at 9-months. All models had Durbin-Watson values close to two, indicating a lack of autocorrelation.

Table 5

Hierarchical Multiple Regression Models for Concurrent Antenatal Associations

Dependent variable	Step		*β*	*t*	*p*	R^2	$R^2\Delta$	*F (df)*
EPDS (AN)	1	Child gender	-.102	-2.409	.016	.005	.005	7.081 (2)
		European ethnicity	-.130	-2.975	.003			
	2	Non-partner support (AN)	-.007	-1.709	.087	.007	.001	5.698 (3)
	3	Partner support (AN)	-.073	-7.105	<.001	.025	.019	16.977 (4)
PSS (AN)	1	Child gender	-.259	-1.185	.236	.005	.005	6.743 (2)
		European ethnicity	-.790	-3.516	<.001			
	2	Non-partner support (AN)	-.086	-4.016	<.001	.011	.006	9.898 (3)
	3	Partner support (AN)	-.473	-9.041	<.001	.041	.030	28.090 (4)

Note. N= 2601 *AN = antenatal non-partner support = friends and family excluding partner, EPDS = Edinburgh postnatal depression scale, PSS = Perceived stress scale*

Table 6

Hierarchical Multiple Regression Models for Concurrent 9-month and Longitudinal Associations

Dependent variable	Step		*β*	*t*	*p*	R^2	$R^2\Delta$	*F (df)*
PHQ9 (9m) (Concurrent)	1	Child sex	-.009	-.249	.804	.002	.002	2.462 (2)
		European ethnicity	.085	2.195	.028			
	2	Sources of stress (9m)	.109	23.480	<.001	.177	.175	185.764 (3)
	3	Non-partner support (9m)	-.004	-1.347	.178	.177	.001	139.821 (4)
	4	Partner support (9m)	-.021	-2.711	.007	.180	.003	113.600 (5)
PHQ9 (9m) (Longitudinal)	1	Child sex	-.009	-.249	.804	.002	.002	2.462 (2)
		European ethnicity	.085	2.195	.028			
	2	EPDS (AN)	.040	1.704	.089	.004	.002	2.258 (5)
		PSS (AN)	.001	.262	.794			
		Sources of stress (AN)	.000	-.050	.960			
	3	Non-partner support (AN)	-.001	-.154	.878	.004	.000	1.885 (6)
	4	Partner support (AN)	.002	.214	.831	.004	.000	1.621 (7)

Note. N= 2601*, 9m=9 month, Non-partner support = friends and family excluding partner, EPDS = Edinburgh postnatal depression scale, PSS= Perceived stress scale*

Moderation Analyses

Four sets of moderation analyses were conducted with sociodemographic variables as covariates (Socioeconomic Deprivation Index, European ethnicity, rurality, and child gender), with each antenatal distress variable (EPDS and PSS) as predictor, antenatal social support (partner and other) as moderator, and each of parenting measures at 9-months and 2-years as the outcome variables. Moderation analyses showed no support for an interaction between any of the indicators of social support (antenatal) and any of the distress variables (antenatal) in predicting any of the parenting variables. In addition, across all models, none of the distress nor social support variables were significant direct predictors of parenting variables at 2 years. Area deprivation (B = .23, p < .001) and European ethnicity (B = .433, p < .01) were positively associated with parental satisfaction at 9months. Area deprivation (B = .067, p < .001) and European ethnicity (B = .433, p < .001) and rurality (B =-.21, p < .01) were also positively associated with parental responsibility at 2-year and European ethnicity (B = .16, p < .05) was positively associated with parental enjoyment at 2 years.

Table 7

Moderated Regression Analysis Results with Distress Variables (Independent), Social Support (Moderator), and Parenting (Dependent)

Parental satisfaction 9 months	*B*	*SE*	*t*	*95%*	*CI*
Model 1: EPDS x partner support	.0051	.0145	.3529	-.0233	.0335
Model 2: PSS x partner support	-.0032	.0094	-.3437	-.0217	.0152
Model 3: PHQ9 x partner support	.0065	.0174	.3720	-.0277	.0407
Model 4: EPDS x non-partner support	-.0058	.0061	-.9491	-.0178	.0062
Model 5: PSS x non-partner support	-.0020	.0038	-.5153	-.0095	.0056

Model 6: PHQ9 x non-partner support	.0009	.0076	.1246	-.0139	.0158
Parental responsibility 2 years					
Model 1: EPDS x partner support	-.0028	.0036	-.7745	-.0097	.0042
Model 2: PSS x partner support	-.0024	.0023	-1.018	-.0069	.0022
Model 3: PHQ9 x partner support	-.0036	.0043	.8449	.0120	.0048
Model 4: EPDS x non-partner support	.0019	.0015	1.258	-.0011	.0048
Model 5: PSS x non-partner support	.0007	.0009	.7817	-.0011	.0026
Model 6: PHQ9 x non-partner support	-.0002	.0019	-.1066	-.0038	.0034
Parental affiliation 2 years					
Model 1: EPDS x partner support	-.0007	.0105	-.0697	-.0213	.0198
Model 2: PSS x partner support	.0099	.0068	1.456	-.0034	.0232
Model 3: PHQ9 x partner support	-.0013	.0126	-.1055	-.0260	.0234
Model 4: EPDS x non-partner support	.0001	.0044	.0270	-.0085	.0088
Model 5: PSS x non-partner support	.0022	.0028	.8107	-.0032	.0077
Model 6: PHQ9 x non-partner support	-.0021	.0054	-.3813	-.0128	.0086
Parental enjoyment 2 years					
Model 1: EPDS x partner support	.0038	.0048	.8001	-.0056	.0133
Model 2: PSS x partner support	.0023	.0031	.7474	-.0038	.0085
Model 3: PHQ9 x partner support	-.0007	.0058	-.1191	-.0120	.0107
Model 4: EPDS x non-partner support	-.0003	.0020	-.1603	-.0043	.0037
Model 5: PSS x non-partner support	-.0006	.0013	-.4854	-.0031	.0019
Model 6: PHQ9 x non-partner support	-.0016	.0025	-.6210	-.0065	.0034

Discussion

The current study aimed to examine (a) associations of partner and other forms of social support with paternal psychological distress; and (b) whether social support buffered the negative impacts of distress on parenting variables. Results indicated that fathers who rated their partners as more supportive during pregnancy were less likely to experience high levels of depression and perceived stress concurrently. Other forms of support (friends and family excluding partner) were also associated with lower depression symptoms and perceived stress. Partner support during infancy was also a significant negative concurrent predictor of depression symptoms and perceived stress. While these associations were statistically significant, the variance that they accounted for was small. Paternal distress and social support during pregnancy were not significantly associated with distress after the baby was born. Neither distress nor social support during pregnancy were significantly associated with parenting variables when the child was 2 years old. Contrary to the expectations, partner support was not found to buffer the negative relationship between distress and later parenting.

Social support and distress

There is evidence that social support is sought out by fathers to help them overcome the daily challenges of parenthood (Doyle et al., 2014); however, social support for fathers and its association with mental health over time has not been extensively researched. This study examined the associations between specific types of paternal social support and several measures of distress, both concurrently and longitudinally. Controlling for demographic factors, partner support added significantly to the prediction of distress over and above non-partner support concurrently, but no longitudinal associations were found. Our findings add to a small but growing body of research examining the importance of partner support for fathers' mental wellbeing and parenting.

Our findings partially supported the hypothesis that partner support would have a unique association with low levels of distress in new fathers during pregnancy and infancy. Low emotional support from partners has been highlighted as a predictor of distress during the transition to fatherhood (Carlson et al., 2018; Wong et al., 2016). Within this context, partner support plays a unique role. Although other sources of informal support (e.g., friends and family) can be helpful, partner support seems to be the preferred support source for fathers (Mayers et al., 2020) and has a stronger relationship with fathers' wellbeing than other sources of support (Rusten et al., 2016). This has important implications since fathers who predominantly rely on their partner for support may be more vulnerable to experiencing symptoms of psychological distress during the antenatal and postnatal periods. Furthermore, fathers without a partner may be at higher risk of experiencing mental health difficulties (Rusten et al., 2019). Lack of emotionality and 'not wanting to be a burden' have been associated with men's adherence to masculine norms (Schwab & Dupuis, 2022).

Our study found partner support to be a unique predictor of depression and perceived stress concurrently but not longitudinally. It may be that fathers with high distress are less likely to access or report value in partner support. During depression, fathers are more likely to seek support from their partners than other people in their lives; however, partners may be less supportive if they are not experiencing support themselves from fathers (Isacco et al., 2010) hence the relationship between father and partner support may be bidirectional. There may be something unique in the transition to parenthood that overshadows the typical factors that predict distress. For instance, fathers' worries and expectations could rapidly evolve during the transition to parenthood. Wong et al. (2016) found that fathers' distress tends to be highest in mid-pregnancy and reduced after the birth of the baby.

Our participants rated their partner as more helpful in the context of caregiving compared to other sources of informal support (e.g., family and friends). Partner support is

likely related to intimacy between parents (Figueiredo et al., 2008); supportive relationships and partner support have been shown to buffer the impacts of perinatal depression and anxiety (Pilkington et al., 2017), which may explain fathers' predominant reliance on their partners. This preference for partner support has important implications for fathers' mental health. Mothers may not be able to provide this role if they are experiencing mental health difficulties themselves, which in turn might negatively affect fathers' mental health. Mothers' experiences of mental health problems in pregnancy are associated with an increase in their partners' vulnerability to developing mental health illnesses (Darwin et al., 2021; Wong et al., 2016). Further research should consider maternal mental health and reciprocal effects of mental health and perceived support in couples.

Social support and the effects of distress on parenting

There was no evidence of a direct association between social support and mental health during pregnancy and later experiences of parenting in infancy and at the 2-year DCW. In addition, and contrary to predictions, social support did not act as a buffer for earlier impacts of distress on later parenting. There might be other important factors, not considered here, that buffer impacts of psychological distress on fathering during the infancy and toddler years. Previous research has demonstrated the important role of relationship quality in fathers' parenting (Doyle et al., 2014; Perry et al., 2012). Altenburger and Schoppe-Sullivan (2020) found that supportive coparenting relationships with mothers were strong predictors of higher-quality parenting behaviour (e.g., emotional engagement) for fathers. Like our findings, another study examining psychological distress among fathers using data from the *Growing Up* antenatal DCW also found no association between levels of parental involvement and psychological distress concurrently (Rusten et al., 2019). The authors found that fathers' desired and actual levels of parental involvement did not predict distress and argued that work-family conflict may have been an obstacle to involvement and contributed

to an increase of distress, instead of lack of involvement itself leading to psychological distress (Rusten et al., 2019). An important next step may involve creating or adapting a father-oriented distress measure (e.g., the Parent Domain of the American Parenting Stress Index) (PSI) (Skreden et al., 2012) that includes risk factors such as work-family conflict and job and relationship quality (Raouna et al., 2021), social support and living with a partner with poor mental health (Seymour et al., 2014).

Our reliance on self-report of parenting may also explain the lack of associations. Drysdale and colleagues (2021) measured father involvement during pregnancy based on attendance at antenatal health visits, during infancy by maternity care visits and reports from the mother. This may be a more valid way to gather information on paternal parenting; however, antenatal classes may not be available or fathers may could be unable to go on visits due to work demands or living in rural areas, Parenting is a multidimensional and complex construct which includes parenting style, behaviours, and the attachment relationship (Bretherton, 2014). Although we were able to measure some aspects of parenting, the measures of parenting used in this study may not have captured the most important dimensions of the parenting experience, particularly as it relates to social support and mental health. Direct observation and complementary reports from partner could have mitigated this issue (Gardner, 2000).

Castillo and Sarver (2012), in a sample of non-resident fathers, found that *perceived* instrumental support (e.g., offering transport to work) was positively associated with father involvement, while *received* support was negatively associated (although not statistically significantly) with paternal involvement. The authors suggested that confidence in the availability of help may have a positive impact on fathers' mental well-being and provide emotional support (Castillo & Sarver, 2012). Our participants may have also felt that support (formal or informal) was available, and this perception of support availability led to low

distress without feeling the need to seek support. A next step would be to examine perception of help availability/feeling supported and specific forms of support (i.e., practical support for parenting, mental health, and social support) and how that relates to parenting outcomes.

Factors other than social support are likely to have had an impact on distress and parenting, for example, fathers' own coping and parenting skills. In addition, having rapidly changing expectations and worries at different developmental stages (e.g., pregnancy versus postnatal) could explain such low prediction of distress over time. It has been proposed that emotional distress in men is commonly manifested as externalising behaviours (e.g., irritability) (Baldoni & Giannotti, 2020). Paternal depression may also be masked by other symptoms such as substance abuse and aggression (Olhaberry et al., 2022). Therefore, measures of depression and stress used in this study may only partially reflect fathers' distress.

Strengths and limitations

A strength of this study is the use of data from *Growing Up in New Zealand*, which has a large, diverse, and broadly representative sample and includes measures of distress, support, socioeconomic status, and parenting measures from fathers at multiple DCWs (antenatal, 9-month postnatal and 2-years). We were able to evaluate the association between social support and distress longitudinally in a large cohort of fathers with adequate power to detect even small effects. The distress measures used are widely used internationally, which facilitates comparison with other studies. The measure of social support allowed for separating out the effect of partner support from other sources of informal support. Multiple measures of fathers' parenting experience were available when the child was 2 years old. This allowed us to investigate the potential buffering impact of social support on parenting in the toddler years.

Findings must also be interpreted with caution due to a number of limitations. The participants were from a community sample recruited through mothers and initially only two thirds of all fathers agreed to participate in *Growing Up* study. Despite the sample consisting of diverse socioeconomic and ethnic backgrounds, some groups such as Māori were underrepresented among fathers in our sample. Our study was limited to resident fathers who had completed the relevant questionnaires. A limitation of this approach may be that more vulnerable fathers (e.g., those who are non-resident, those who could not complete the questionnaires and those who did not feel comfortable volunteering for the study) were not included, perhaps leaving a sample with a high level of perceived support and relatively low levels of distress. One-sample t-test showed our sample's PHQ9 to be significantly lower (x = 2.9, SD = 3.07) compared to a general population sample (x = 3.3, SD = 3.8) (t = 2.71, p = .007) from Kroenke et al. (2001).

Fathers who did not complete questionnaires (Morton et al., 2012) or could not be contacted may have been more likely to be experiencing mental health difficulties, poorer relationships with their partners and low parental involvement. In addition, future research is needed that specifically focuses on the needs of other types of father figures such as single, non-custodial, non-resident and adoptive fathers and same-sex or gender diverse partners (Guterman et al., 2018; Golombok et al., 2014) Different measures of distress were used in pregnancy and infancy, and there was no measure of distress at the 2-year DCW. Having consistent distress measures during all three assessment periods might have provided a clearer assessment of the course of distress over time, and of the relationships among distress, social support, and parenting experiences.

Social support questions were centred around helpfulness in the context of raising children. It may be that asking fathers about more general types of social support can better reflect social support in a broader context that relates more closely to fathers' mental health

(e.g., focusing on broader/more personal social support than just caregiving). In addition, the 'parental satisfaction' scale's low internal consistency means it may not have been an accurate measurement of the forementioned parenting construct.

Implications and conclusion

Early fatherhood can be a turbulent time and some of the stressors may be unique to this period of transition and different to general stress. Understanding mothers' perceptions of their capacity to provide emotional support to fathers during pregnancy and infancy might help in finding ways to better support fathers. Future studies should investigate coping skills or sources of support that fathers find most helpful during the transition to parenthood. Additionally, non-resident and low socioeconomic status fathers are often excluded in child development research due to difficulties of recruiting and maintaining contact longitudinally (Altenburger, 2022).

Despite the limitations, the current study provides evidence that social support and partner support are uniquely important to the wellbeing of fathers. Healthcare providers can play an important role in facilitating wellbeing discussions between mothers and fathers around how they can best support each other. Research has suggested the benefits of moving away from viewing fathers solely as the support figure for mothers and considering the whole family as a unit (Pryor et al., 2014l; Redshaw & Henderson, 2013). Health professionals and child health nurses have reported having insufficient skills to support fathers (Darwin et al., 2021). Midwives have also reported a lack of confidence in engaging with fathers and asking them about their mental wellbeing (Darwin et al., 2021). Professional training should be provided to health and maternity care workers about the needs of fathers and how to educate, communicate, and screen for difficulties among fathers. This research on the needs of young families can inform the training of health professionals and improve their engagement and

understanding of fathers' challenges. Lastly, other sources of support may be useful as the current sources are often based upon mothers' needs and simply adapting them for fathers, might not always be effective (Fletcher et al., 2019). For example, text-based supporrt or other ways to engage fathers might be more successful than relying solely on health care providers.

4. Study 3: The relationship between distress and mental health literacy in fathers: barriers and facilitators to paternal help-seeking

Abstract

Mental health literacy (MHL) is related to mental health help-seeking, both of which remain understudied in fathers compared to mothers. The current study examined the relationship between paternal MHL and emotional distress, as well as fathers' views on mental health help-seeking and barriers to accessing care. It was hypothesised that: (1) those who experience higher levels of distress would exhibit lower levels of MHL; and (2) clear symptoms of depression (typical depression) vignettes would be more accurately identified, compared to masked depression. Participants (N = 129) residing in NZ or Australia completed an online survey, the Depression, Anxiety, and Stress Scale (DASS-21) and answered two open-ended questions about their perceptions of barriers to help seeking and how they would seek help if experiencing similar situations as described in the vignettes. The first hypothesis was partially supported. Although MHL was not correlated with levels of depression or anxiety, an elevated level of stress was associated with interpreting vignettes as indicating mental health problems, regardless of the accuracy of this interpretation. The second hypothesis was supported: fathers were significantly more likely to correctly identify clear symptoms of depression than masked depression. Fathers described several internal and external barriers to help-seeking and imagined utilising help from a variety of informal and professional sources. Findings suggest that stress is uniquely important to fathers' MHL; however, further research is needed to understand the impact of other factors on paternal MHL. In addition, current professional support for fathers may be perceived as inadequate. These findings have important implications for health professionals' screening for paternal mental illness.

Introduction

Fatherhood is a major life transition with a range of emotional consequences for men (Isacco et al., 2016). Identified negative outcomes include increased anxiety and stress, relationship conflicts and depression (Singley & Edwards, 2015; Fletcher et al., 2006). Meta-analyses indicate that up to 10% of fathers are affected by depression during pregnancy (Paulson & Bazemore, 2010), with the rate increasing in the first year after birth (Cameron et al., 2016). A systematic review of anxiety disorders during the prenatal period found that between 4% to 16% of fathers experience high levels of anxiety while the rate of postnatal paternal anxiety was 2-18% (Leach et al., 2016). There is a high comorbidity between anxiety and depression, and both must be considered while exploring fathers' mental health (O'Brien et al., 2017). Given that male depression in general is underdiagnosed (De Rubeis et al., 2017; Martin et al., 2013; Hunt et al., 2003), it is likely that the rate of paternal depression is also underreported (O'Brien et al., 2017).

Paternal anxiety and depression can exert a variety of effects on fathers, including impairments in working and short-term memory (Pio de Almeida et al., 2012) and reduced ability to perform to workplace standards (Nishimura & Ohashi, 2010). In addition, fathers' mental health may also affect their partner and child's wellbeing (Baldwin et al., 2019). A meta-analysis of fathers' depression showed an association between paternal perinatal depression, and socioemotional and behavioural problems in children (Cui et al., 2020). Research has also shown an association between maternal and paternal postnatal depression (Wong et al., 2016) and this association seems to be bidirectional, with the distress caused by one partner's low mood and limited coping and cognitive skills increasing the risk of depression for the other partner (Giallo et al., 2013). While the literature suggests the prevalence of fathers' mental health issues and their impact on families are significant and

widespread, fathers' mental health and wellbeing remains a relatively understudied topic (Baldwin., 2019; Rusten et al., 2019; O'Brien et al., 2017; Underwood et al., 2017).

Mental health literacy (MHL) has been described as the ability to identify and distinguish between mental health disorders, awareness of how and where to obtain information regarding mental health problems (Jorm, 2015) and competencies and self-management skills that improve mental health (Kutcher et al., 2016). MHL is a complex construct, therefore this study focused on a specific aspect of MHL related to the ability to differentiate between depression and daily stress and recognising the need for mental health support. Only a limited number of studies have examined the relationship between MHL and mental health status. The available research shows that MHL tends to be lower in elderly and those with high levels of depression and anxiety, possibly due to the debilitating effects of mental health disorders (Tunç Karaman et al., 2022). Lam (2014), in a sample of adolescents, found that those with moderate to severe depression were more likely to have poor levels of MHL. MHL is relatively low among the general public (Furnham & Swami, 2018) and men tend to have lower mental health literacy than women (Lam, 2014). These factors could pose a risk for recent fathers experiencing distress. Therefore, to adequately support fathers' mental health and well-being, it is essential to understand the relationships among knowledge about mental health, attitudes toward help-seeking, and emotional distress.

While depression can manifest as a state of dysphoria with functional impairment for both women and men, research indicates that compared to women, men experiencing depression are more likely to express their distress externally, through displaying anger, irritability, frustration, substance abuse (Oliffe et al., 2019), and impulsive and hyperactive behaviour (O'Brien et al., 2017; Bronte-Tinkew et al., 2007). Other signs of depression that might be less well-recognised in men include insomnia, significant weight fluctuation, inability to make decisions, and a loss of interest in the activities they used to find enjoyable

(Bronte-Tinkew et al., 2007). In addition, male depression can be masked by avoidance and numbing (e.g., drug and alcohol use), interpersonal and relationship conflict and somatic complaints. Masked depression has been associated with men's aversion to showing vulnerability and weakness (O'Brien et al., 2017).

Research on men's depression highlights diagnostic limitations and challenges. The inclusion of typical and alternative/male-type symptoms of depression (referred to as 'masked depression' in this study) such as aggression, risk taking behaviour, and substance abuse in assessments has resulted in a higher proportion of men meeting the criteria for depression (Martin et al., 2013). Reliance on men exhibiting typical symptoms of depression may lead to underdiagnosis of male depression (Wilhelm, 2009) and contribute to the discrepancy between men's and women's depression rates. In addition, male completed suicide rates are significantly higher than women and reflect the urgent need to identify men experiencing depression in order to provide support and treatment (Steck et al., 2016). The ability to recognise signs and symptoms of mental health problems is an important aspect of MHL (Altweck et al., 2015). Masked depression may often present with symptoms that are not as easily recognisable as the typical manifestations of depression, such as acute sadness or loss of interest (Möller Leimkühler et al., 2007). Thus, masked depression can be challenging to identify, both for the individual experiencing it and for those around them (Call & Shafer, 2018).

While there is little research on fathers' help-seeking in the prenatal period (Schuppan et al., 2019), it has been found that men experiencing depression in general have a strong preference for seeking support from their partner (Seidler et al., 2016). However, some men believe it is inappropriate to seek support from their partner during the perinatal period (Ghaleiha et al., 2022). Thus, men's help-seeking during the perinatal period may be quite different than any other time in life, with its own unique experiences and challenges

(Schuppan et al., 2019). Existing research has suggested that barriers such as low awareness and access to appropriate services and stigma could reduce fathers' mental health literacy and thus help-seeking (Schuppan et al., 2019).

There is evidence that people tend to associate postnatal depression mostly with mothers or being caused by pregnancy or postpartum events (e.g., birth complications or unsuccessful breastfeeding) (Swami et al., 2020). Therefore, fathers may be perceived as less likely to experience postnatal depression than mothers (Kirby, 2017). This, combined with a lack of awareness of paternal depression risk factors, means that men's postnatal depression may go unnoticed or undiagnosed (Philpott, 2016). The small number of studies that have examined mental health literacy in the context of postnatal depression have predominantly focused on maternal postnatal depression (Highet et al., 2011; Kingston et al., 2014; Hauck et al., 2015). One of the only studies examining mental health literacy of adults with regards to maternal as well as paternal postnatal depression found that participants were more likely to report something was wrong if the vignette (scenario) they had read was about a woman (97%) than a man (75.9%) (Swami et al., 2020). Of those who had reported something was wrong, 90.1% correctly identified the female vignette as having postnatal depression, compared to 46.3% for the male vignette (Swami et al., 2020).

The current study aimed to find out whether the mental health literacy of fathers was related to their own distress. This question was explored in a sample of NZ and Australian adult men, using vignettes describing fathers of young children with varying symptoms of distress. Participants' perceptions were explored through open ended questions about their views on barriers to help-seeking for fathers and their own potential approaches to seeking help for mental and emotional wellbeing. Vignettes are an effective method to examine attitudes and beliefs on sensitive subjects or scenarios (Gray et al., 2017). Due to vignettes' uniquely flexible nature, participants' interpretations of a specific situation within a wider

context can be explored (Gray et al., 2017). Given that the literature indicates those experiencing anxiety and depression are more likely to have poor levels of MHL (Tunç Karaman et al., 2022; Lam, 2014), it was hypothesised that high levels of distress would be associated with low levels of MHL. In addition, it was predicted that there would be significant differences in fathers' ability to correctly distinguish between masked depression and clear symptoms of depression (typical depression), with typical depression being more frequently identified than masked depression.

Method

Participants

Participants were 129 fathers residing in either New Zealand or Australia who were parents of children aged up to 12 years; they completed the vignette survey online. The age range of fathers was between 27 and 61 years old, with a mean of 39.11 years (*SD* = 7.23). More than half of participants (#, 52.7%) were between 30 and 40 years of age. Participants had two children on average and the age of participants' youngest child ranged between below one and 12 years. Most participants were of European ethnicity, with small numbers from other ethnic groups (see Table 8).

Table 8

Demographic Information for Sample of Fathers

	Mean (SD)	# (%)
Paternal characteristics		
Age in years	39.11 (7.23)	
Number of children	1.93 (0.92)	
The age of youngest child	4.54 (3.69)	
Ethnicity		
European		82.2
Indigenous (including Māori and Aboriginal and Torres Strait Islanders)		7.0
Pacific peoples		3.1
Asian		3.1
Other		4.7

Note. N = 129, Other= Other ethnicities

Procedures

Demographics and Background Variables. Participants were asked about their number of children, age of their youngest child, their own age and ethnicity and whether they had received treatment for a mental health disorder (e.g., depression, anxiety, substance abuse) as a yes/no question.

Mental Health Literacy (MHL). Nine vignettes were developed (based on the literature) across three types of distress: clear symptoms of depression, masked depression, and normal parenting stress. Clear symptoms of depression (American Psychiatric Association, 2022) included typical symptoms of depression such as depressed mood and feelings of worthlessness and guilt (Bonfini & Ventura, 2021). Masked depression was characterised by externalisation of distress into action (Rabinowitz, & Cochran, 2008). The masked depression vignettes included expression of irritation, anger, withdrawal, avoidance,

impulsive and hyperactive behaviour (O'Brien et al., 2017; Nadeau et al., 2016; Bronte-Tinkew, et al., 2007). The last category, stress, included typical daily stressors experienced by parents such as not getting enough sleep or work-related stress (Xu & Zheng, 2023).

The order of scenarios was randomised for each participant and the participants answered two questions about each vignette. They were asked if they thought the individual in the vignette (1) had a mental health problem; and (2) needed help. Responses were rated on a Likert scale from 1 (definitely no) to 4 (definitely yes). Each category consisted of six items (two questions per vignette). The sum scores were calculated separately for depression, masked depression, and stress categories by adding their relevant item scores. MHL was scored using both items for each vignette. For vignettes describing depression, whether masked or typical, scores were added as rated to the total. For vignettes describing stress but not depression, scores were reversed so that those correctly identifying this as not being a mental health issue received higher scores. The total mental health literacy score was calculated by adding the total scores of each category together. The high scores reflected higher MHL, and low scores reflected low MHL. The overall Cronbach's α for MHL was 0.82.

Table 9

Vignette categories

Category	Definition	Symptoms	Vignette examples
Clear symptoms of depression	A state of dysphoria with functional impairment	• Depressed mood • Sadness • Excessive crying • Feeling of worthlessness	Akshay and Brinda have been married for 5 years and have two children 5 and 3 years old. Akshay works full time as a chef. The family is on a tight budget. Akshay was reprimanded by his boss last week for not turning up to work for a few days. Akshay reports having little interest in doing things he once found enjoyable, feeling like a failure for letting his family down, feeling hopeless about the future and having little energy throughout the day. He has been crying at night after Brinda goes to sleep.

Masked depression	Externalisation of distress into action	• Anger • Irritability • Substance abuse • Impulsive and hyperactive behaviour • Insomnia • Loss of interest in once enjoyable hobbies and activities	Lixin is a 24-year-old father who lives with his wife, Mei and two children aged 5 and 2. He had to pick up more hours at work after the birth of their second child. He has lost his appetite and often skips lunch or breakfast. He drinks 3-4 cans of beer and smokes marijuana after dinner. His colleagues have noticed him getting very frustrated and agitated about little things at work that never used to bother him.
Stress	Daily life stressors that are not depressive symptoms nor cause any major impairment in personal life or work	• Work-life balance • Financial responsibilities • Occasional arguments with spouse	Nikau is a 33-year-old father living with his wife Mia and their 7-year-old child. Nikau says he tends to overreact to Mia's criticisms in the past few days. She wants him to be more involved in taking care of their child. Nikau finds balancing work and family responsibilities stressful. He works long hours and does not get enough sleep on weekdays but catches up on sleep on weekends.

Depression, Anxiety and Stress Scale 21-item (DASS-21). The DASS-21 is a self-report questionnaire, developed for use in the general population. The DASS-21 includes 21 items divided into three subscales which measure the negative emotional states of depression, anxiety, and stress (Lovibond, & Lovibond, 1995). The DASS-21 has shown good validity and reliability across clinical and non-clinical populations (Thapa et al., 2022), with high correlation (r = 0.79) of total DASS-21 with similar constructs (Beck Depression Inventory) (Ryan et al., 2019) as well as an internal consistency ranging from .82 to .97 (Osman et al., 2012). The DASS-21 was developed in Australasia (Ryan et al., 2019) and widely used across different cultures and regions (Thapa et al., 2022; Oei et al., 2013).

Fathers were asked to rate their emotional state for each item over the past week on a Likert scale. Responses to the items included 0 (did not apply to me at all), 1 (applied to me to some degree, or some of the time), 2 (applied to me a considerable degree, or a good part of the time) and 3 (applied to me very much, or most of the time). Sum scores were calculated for by adding the responses to relevant items for each subscale and the whole scale. Cronbach's α for depression, anxiety and stress scales were 0.90, 0.84 and 0.90 respectively.

Open ended questions. Two questions were asked at the end of the survey including, 'If a father needed mental health support, what kind of things would prevent him from getting help?', 'If you were experiencing some of the difficulties like those fathers you read about today and thought you needed help, how would you get help?'

Recruitment

A digital poster was designed asking those eligible to participate in an anonymous survey. The inclusion criteria included residing in NZ or Australia, being an adult (18 years and above) father, including adoptive fathers, and having children aged 12 or below. Fathers

were recruited from June 2022 until April 2023 via multiple streams including noticeboards, social media, father support groups, school newsletters, word of mouth, day care centres, healthcare providers and other community centres such as libraries, religious organisations, and sport clubs.

Data Collection

This study was approved and overseen by [redacted for blind review] University Human Research Ethics Committee. An online information sheet was presented to participants as a preface to the survey. Online surveys were generated, and responses were gathered through Qualtrics, a web-based platform facilitating survey design.

Participants read nine vignettes (scenarios) describing hypothetical situations and answered two follow-up questions per vignette. In the next step, participants completed the DASS-21 and answered two questions described above. Upon completing the survey, a list of helplines and resources for anxiety and depression was shared with the participants.

Data analyses

Responses to this survey generated a mixture of quantitative and qualitative data which were analysed using statistical and content analysis.

Data analyses

Quantitative data analyses were conducted using IBM SPSS v.29. Participants who had not completed more than 75% of the important variables (the vignettes and DASS 21) (n = 30), did not consent to participate (n = 3) in the study or did not meet the inclusion criteria (n = 16) were removed from the analysis. Therefore, from 178 original responses, 129 (72.5%) were included in this analysis. Out of the 129 remaining participants, less than 6% of data were missing from any one scale (e.g., vignette or DASS-21 items). If participants

omitted one or a small number of items on a scale, the missing item was replaced by the overall sample mean of that scale. The majority of participants included in the study (93%) had answered every item on the vignettes and DASS-21.

The MHL score had a kurtosis value of +4, which is outside of the normal range (Kim, 2013), and the Shapiro–Wilk test indicated non-normality for both MHL and DASS-21 subscales and total scores. Extreme outliers (three for MHL and two for DASS-21) were removed and inverse and log transformations were used to reduce kurtosis and meet the assumption of normality (Field & Field, 2018) for DASS-21 anxiety and depression subscales, and the total MHL. Pearson's bivariate correlations were used to evaluate association between continuous variables and independent t-tests for dichotomous variables.

Independent t-tests were used to compare DASS-21 scores and MHL of those who reported that they had received mental health care (*N*= 53) with those who had not (*N* =76). Hierarchical regression was used to investigate whether DASS-21 predicted fathers' mental health literacy after controlling for covariates. A total of three regression models were conducted, one each for the depression, anxiety and stress DASS-21 scores. Covariate(s) (age, youngest child age and number of children) were entered in step one of each model, followed by the DASS-21 total or subscale scores as an independent variable. The sum of mental health literacy score was entered as the dependent variable. Hierarchical regression models reduce multicollinearity and are useful for assessing the amount of variance in the dependent variable explained by the variable of interest (Field & Field, 2018). No (58.9%)

Yes (41.1%)

Thematic analyses

Thematic analysis was used to examine fathers' responses regarding barriers to help-seeking and their own hypothetical use of support for emotional distress. Thematic analysis allows for a great degree of flexibility in data composition and representing the views and voices of participants (Braun & Clarke, 2021). An inductive approach was appropriate for investigating experiences, views and meanings shared by the participants which formed the backbone of coding and later development of themes.

Braun and Clarke's (2021) six phases of reflexive thematic analysis were used; (a) familiarisation with the dataset through the process of immersion (rereading the data items and datasets) and making notes about future analysis, (b) identifying contents that were meaningful and relevant to research questions and labelling them accordingly, semantic coding which generally remains close to participants' language (explicit meaning) was used, (c) codes that shared patterned meaning were identified and initial themes were developed by the researcher centred on the research question and the dataset itself, (d) candidate themes and their core focus with regards to the research questions were reviewed by the authors, some themes were retained or merged together and some were discarded completely, (e) a brief and concise description was developed for each theme and an informative name was given to each theme, (f) then the results were written up to provide a coherent narrative to answer the research question.

The NVivo 14 program was used to code, create themes, organise, manage, and visualise the contents (Woolf & Silver, 2017). The coding was completed by the first author and shared with the other authors who provided feedback. Saturation in participants' responses was observed by the 70th survey; however, due to the rich information shared by fathers, every survey response was read and coded.

Results

Preliminary analyses

Assumptions and descriptive statistics. The values in the tables are prior to transformation. Means and standard deviations for mental health literacy and mental health variables are presented in Table 10.

Table 10

Means and Standard Deviations for Key Variables of the Sample

Variable	Mean (SD)	Min	Max	Range
Mental health accuracy				
Clear symptoms of depression	21.87 (2.21)	15	24	9
Masked depression	19.26 (2.64)	6	24	18
Daily stress	16.22 (3.22)	7	24	17
Total mental health literacy score	57.36 (3.84)	48	67	19
Fathers' mental health				
DASS-21 subscales				
Depression	5.48 (5.37)	0	21	21
Anxiety	4.04 (4.09)	0	19	19
Stress	8.39 (5.08)	0	21	21

Received treatment for	No (58.9%)
mental health	Yes (41.1%)

Note. N = 129

Correlation coefficients distress and paternal characteristics with mental health literacy are shown in Table 11.

Table 11

Pearson's Correlations Between the Main Variables and the Covariates

Variable	Clear symptoms of depression	Masked depression	Daily stress	Mental health literacy
Depression subscale	.112	.051	-.097	.018
Anxiety subscale	.130	-.001	-.057	.026
Stress subscale	.351**	.231**	-.229**	.168
Age	-.040	-.002	-.127	-.131
Youngest child age	-.122	-.040	-.108	-.235**
Number of children	-.074	-.066	-.061	-.185*

*Note: *p < .05, **p < .01*

Preliminary findings

There was a small but significant correlation between having older r (127) = -.235, p < .01, and more children r (127) = -.185, p < .05, with having less accurate mental health literacy. Fathers who had received treatment for a mental health disorder scored higher on total DASS-21 (x = 21.15, SD = 15.42) than those who had not received treatment for mental health disorders (x =15.66, SD = 11.12) (t = 2.262, p = .026). There was no significant difference between the mental health literacy of those who had received mental health

treatment (x =57.92, SD = 3.12) and those who had not (x =57.30, SD = 3.66) (t = 1.01, p= .315). Those who had received mental health treatment were more accurate in recognising clear symptoms of depression (x = 22.4, SD = 1.94) compared to those without a mental health treatment (x = 21.5, SD = 2.31) (t = 2.31, p = .023). Fathers were more likely to be accurate in recognising clear symptoms of depression (x = 21.86, SD = 2.64) than masked depression (x = 19.26, SD = 2.64) (t = 13.98, p <.001). There was no significant difference between the MHL of European (x = 57.7, SD= 3.5) and other ethnic groups (x = 56.91, SD = 3.19) (t = .99, p = .324).

Multiple regression

Three hierarchical regressions were conducted examining associations between fathers' mental health and mental health literacy. Age, age of youngest child and number of children were entered as covariates at step one and each of DASS-21 sub scores were entered separately in step two with mental health literacy the dependent variable in each of the three models. The regression models are presented at Table 12.

In the first two regressions, depression or anxiety subscales did not significantly predict the MHL score of fathers. The third multiple regression found the stress subscale was a significant unique predictor of mental health literacy score ($R^2\Delta$ = .136, SE = 2.06, β = 0.379, p = <.001) accounting for 13.6% of the variance.

Table 12

Hierarchical Multiple Regression Models for DASS-21 and its Subscales Predicting Mental Health Literacy

Dependent variable	Step		*β*	*t*	*p*	R^2	$R^2\Delta$	*F (df)*
MHL	1	Age	-.061	-1.239	.218	.089	.089	4.03 (3)
		Age of youngest child	-.115	-1.227	.222			
		Number of children	-.460	-1.412	.161			
	2	Depression subscale	.016	.292	.770	.090	.001	3.02 (4)
MHL	1	Age	-.061	-1.239	.218	.089	.089	4.03 (3)
		Age of youngest child	-.115	-1.227	.161			
		Number of children	-.460	-1.412	.222			
	2	Anxiety subscale	.003	.049	.961	.089	.001	3.001 (4)
	1	Age	.020	.583	.561	.020	.020	.850 (3)
		Age of youngest child	-.087	-1.349	.180	.201		

		Number of children	-.157	-.700	.485	.483		
MHL	2	Stress subscale	.379	4.477	<.001	.156	.136	5.746 (2)

Note: Note. N = 129, MHL = Mental health literacy

Qualitative analyses

Due to an overlap in themes across the two questions, responses to the open-ended questions were analysed together. Qualitative results are presented under four themes centred on the main points raised by fathers: (a) awareness, (b) time and cost, (c) internal barriers, and (d) support for fathers. Each of these themes was developed from participants' answers to research questions about ways fathers would seek support for their wellbeing and factors that might prevent them from seeking this support. Relevant example quotes will illustrate the main findings. The themes and subthemes are presented in Table 13.

Table 13

An Overview of the Themes

Themes	Subthemes	Descriptions
Awareness	'Not even sure where I would get help from'	Not knowing how/where to seek support. Lack of knowledge of appropriate services for fathers
	Not aware of feeling distressed	Not knowing that what they are experiencing may be distress or a mental health problem
Time and cost		Taking time off work, wait times, parental responsibilities, and the financial cost of seeing a professional (e.g., a psychologist).
Internal barriers	Stigma	The fear of being stigmatised by others for seeking professional help. Feeling embarrassed.
	'I can handle it'	Fathers downplaying the pressure they are under, 'you are meant to have it all together'.
Support for dads	Informal support	Relying on partner, friends, and family, as a primary source of support before seeking professional help.
	External support	Using self-help and informal support before seeking help from the local dad support groups, family GP, Hotlines, EAP (supported employment) or visiting a psychologist.

Awareness

Lack of awareness was viewed as a barrier to help-seeking. This included low awareness of support available for fathers and fathers not being fully aware of their own mental and emotional state. Some examples are presented below.

"Unaware where to get help"

Many participants seemed to be unaware or uncertain about available support for fathers, and where and how to access agencies and mental health professionals. For example, "I am unsure of how to access it [help] or who to reach out to" or "not knowing where to go or whom to turn to". Some were also unsure about the type of support and resources that health professionals could provide "not knowing what real support professionals can offer other than a kind ear or medication".

Not aware of feeling distressed

For some fathers one of the main barriers to help-seeking was lack of awareness of their own mental health status, as explained by one participant "not realising that what they are experiencing is simply ill mental health". Some added that fathers may not even realise that they need help "does the father know he needs help?".

Time and cost

According to our participants, by far the most frequent comment about help-seeking was the perceived time and financial cost associated with accessing mental health services. Fathers were unable to go to appointments during their normal working hours and were also concerned about lengthy public health wait times. For example, "time constraints to attend sessions during the day. If engaging with private services, money could be a barrier. Wait times for public services". They would also find it difficult to allocate time to seek mental

health help due to their family and work obligations. One said “demand for my time and attention between work, childcare, spousal, and housekeeping responsibilities” and the other said “unless dads are able to park somewhere on the way home and call from the car, getting time for our own mental health is a struggle”.

Internal barriers

This theme captures the perceptions and attitudes of participants which in their view could prevent fathers from seeking mental health support.

Stigma

Fathers highlighted the stigma associated with mental health help-seeking and admitting to themselves and others that they need help. For example, “fear of being seen as weak”. Some felt fathers would be embarrassed to express their need to receive help and were concerned about external judgement such as “people thinking that they're incapable of parenting”. They believed family and society had certain expectations of them which included appearing ‘strong’ and ‘reliable’ as husbands and fathers. Some explicitly named stigma: “stigma is huge, both societal and spousal” and “stigmas around men being tough”. One participant expressed concern about the ramifications of a mental health diagnosis for his child custody hearing.

“Minimising distress”

Some fathers felt that their peers minimised or normalised the distress that they experience and held a belief that they should overcome it on their own and for the sake of your family. “You are supposed to carry all this burden and not seek help”, “needs to be a rock for his children”. Some referred to a NZ colloquial phrase, “she’ll be right” and the need to just ‘carry on’ with life.

Support for dads

This theme explores the ways that fathers utilised to seek support for their mental and emotional wellbeing. Men tended to seek support from their partner, friends and family first before visiting health professionals.

Informal support

Fathers mostly confided in their partner/spouse as their main source of emotional support. “Firstly, a lot of these [difficulties] could have been figured out with communication with the better half”. After partners, family and friends were viewed as a reliable source of support “Talking to my whānau (extended family) or close, trusted friends”. Some participants preferred dealing with their problem on their own (e.g., searching for online resources) prior to seeking help from another person. For instance, “if that [self-help] doesn't work, seek professional help” and “last resort would be to talk to someone one on one.”

External support

This subtheme describes the ways in which fathers sought support from external sources outside of their immediate family and friends.

For many, visiting their General Practitioner (GP) was the first step in requesting formal mental health help. Some were aware of the GPs ability to refer them to their local mental health service. “I would immediately speak to my GP about a mental health plan with appropriate referrals to psychology/psychiatrist.” Not all men had a good experience with services. They were unhappy with a range of issues including “lack of funded specialist male support”, mental health services’ “inexperience” in helping fathers and men in general, and “being put straight on SSRI (selective serotonin re-uptake inhibitors) tablets” after visiting the GP. Psychologists, counsellors and receiving therapy were helpful in some cases for

fathers, “seeing a psychologist was a great help”. Fathers mentioned accessing mental health services through their work. “I would try to book some time with a psychologist through the company EAP (employee assistance programme)”. Men also used social media and father support groups to seek advice from their peers “posting anonymously on dads forums”.

Discussion

In this study, we were interested in the association between fathers’ distress and their own mental health literacy (MHL). Fathers were also asked about their perceptions of barriers to help-seeking and their knowledge of ways of seeking mental health support. Only perceived stress was associated significantly with MHL; overall, fathers with high stress levels were more likely to rate all vignettes as having mental health problems and needing help. Furthermore, as hypothesised, fathers were more likely to identify clear symptoms of depression compared to masked depression. Participants described several internal and external barriers to help-seeking believed to be experienced by their counterparts. We also found that fathers used a variety of support sources with a preference for informal sources and self-help in the context of mental and emotional wellbeing.

Controlling for demographic factors, the stress subscale significantly predicted fathers’ MHL in contrast to the DASS-21 depression and anxiety subscales, which were not significantly associated with MHL. Our findings did not support the hypothesis that high levels of distress would be associated with low levels of MHL. High levels of stress were significantly associated with a tendency to rate both depressed types of vignettes as being a MH problem and needing help, but also with identifying normal daily stress as a MH problem that requires support. However, higher levels of depression and anxiety did not follow this same pattern. Tunç Karaman et al. (2022) found MHL to be lower in patients with high symptoms of anxiety and depression and Lam (2014) in a study of MHL in youths reported

an association between moderate to severe levels of depression and an inadequate level of MHL. A study of MHL in undergraduate students (Almanasef, 2021), however, found that women and those with a previous history of mental illness were more likely to have a higher level of MHL than those without a history of mental health issues. Our study also found participants who had received mental health treatments were more likely to accurately identify clear symptoms of depression compared to those who had not received any mental health treatment. It is possible that vignettes with clear symptoms of depression were more relatable and recognisable to those with a history of mental health illness since these participants could have gained knowledge about their depressive symptoms through their interaction with health professionals. Therefore, it seems personal experiences of mental health treatment is associated with higher levels of MHL and those with a high level of MHL may be more likely to seek mental health support (Almanasef, 2021; Lam, 2014b).

The unique prediction of MHL by high levels of stress is in contrast with Tambling et al. (2021) who reported an association between poor MHL and high levels of depression, anxiety and stress. Our study found while higher stress levels could increase fathers' likelihood to identify the need for mental health help, they may struggle to accurately differentiate between mental health problems and regular stress. Hengen & Alpers, (2019) found an individual's fear and anxiety was related to an overestimation of negative outcomes. Thus, it may be possible that fathers with high levels of stress overestimate the severity and impacts of daily stress. The stress subscale items (e.g., agitation or over-reaction) may have been more relatable (e.g., stress related to work-life balance), recognisable, and easier to disclose compared to depression or anxiety (e.g., panic) items that could have been perceived as embarrassing (stigma) or more difficult to recognise due to poor mental health literacy. Given that men may face unique stressors related to their paternal roles and responsibilities (Ping et al., 2022), recognising when their feelings and experiences might indicate 'normal'

daily stressors or a mental health problem such as depression could be crucial, so the responses to the problem would match the nature and severity of the issue.

In the current study, a particular aspect of MHL: the ability to accurately distinguish between depression and daily stress, was examined. Similarly, using vignettes, Lam (2014) focused on two important dimensions of the MHL construct, identification of mental health problem and the intention to seek help. Swami et al. (2020) presented participants with vignette descriptions of either maternal or paternal postnatal depression, then asking whether any issues with the targets were perceived, followed by descriptions of the perceived issue. The authors found when participants correctly identified the mental health problem in male scenarios, they were more likely to associate the problem with stress or exhaustion than depression or postnatal depression (Swami et al., 2020), indicating a gender binary in symptom recognition of postnatal depression. Differences in measurement and even definition of MHL, may be related to differences in findings of these studies.

Fathers with larger families and older children were more likely to have a lower level of MHL. Fathers with more children may experience more work-life conflict, cumulative stress (Oyarzún-Farías et al., 2021) and more time constraints, due to parenting multiple children and having less availability to focus on mental wellbeing or seeking mental health support. Our findings were in contrast with Rhodes et al. (2018), who in a nationally representative sample of MHL among Australian parents found knowledge of help-seeking for professional support to be lower in single parents and parents of infants and toddlers. Other factors such as the stress of being a single parent, as well as the stress of having young children, in particular infants may have contributed to this low level of knowledge.

De Buhr and Tannen (2020) did not find number of children to be a significant predictor of health literacy (HL) in German parents; instead, the major predictors of HL were

high socio-economic status, geographical location, and older age. Phoa et al., (2023) also found younger age being associated with higher MHL among parents, teachers, and guardians of adolescents. The varying and sometimes contradictory findings in existing studies make it challenging to establish concrete conclusions about demographic predictors of MHL. Further research is required to better understand the complex relationships between demographics and MHL.

Participants were more likely to rate the person in the vignette as having a mental health problem and needing help if the person exhibited depressed mood compared to masked depression. Therefore, it appears that fathers may be less likely to recognise externalised distress (Oliffe et al., 2019; Rabinowitz & Cochran, 2008) and engaging in alcohol or drug abuse to self-medicate for depressive mood (Schuppan et al., 2019) as signs of depression. Fathers may have viewed externalised distress not as a mental health issue but as something to be downplayed (Giallo et al., 2017) or normalised. Traditional portrayals of depression often focus on the typical symptoms such as overwhelming sadness and feelings of hopelessness (Bonfini & Ventura, 2021). However, men may experience masked or 'atypical' depression (Nadeau et al., 2016; Bronte-Tinkew, et al., 2007), which can present with symptoms not as easily recognisable as typical depression. Due to these symptoms not fitting the stereotypical image of depression, it may be challenging for men to recognise these signs in themselves or others. An external display of distress may also be more socially acceptable for fathers and less associated with appearing weak than the usual depressive symptoms such as excessive crying or low mood.

External barriers

Fathers reported that they would find it difficult to seek mental health support due to a lack of appropriate services and low awareness of available support for fathers. These findings are similar to Schuppan et al. (2019) who found unfamiliarity with pathways to care and the belief that there were no existing services, to be significant barriers to paternal help-seeking. There is evidence that early parenting services designed to support parents with complex parenting difficulties may have an inadequate understanding of fathers' needs and experiences (Darwin et al., 2021). In addition, these services may view fathers as an 'add-on' to the mother rather than a parent with their own needs and impact on the child's life (Fletcher et al., 2017). Some fathers had also expressed a low trust in prenatal health services to support their emotional and mental wellbeing, which may discourage them from disclosing their difficulties in the future.

The biggest external barrier faced by fathers was fulfilling work and family responsibilities in addition to allocating time and money to access mental health services. Previous research has demonstrated that managing work alongside family obligations to be one of the biggest stressors for fathers (Rusten et al., 2019). In our study, taking time off work and having to visit health professionals during normal working hours discouraged fathers from seeking mental health support; these concerns have also been voiced by UK first time fathers (Baldwin et al., 2019). Time and cost associated with accessing mental health services are more likely to negatively affect low socioeconomic status fathers, families with solo income and single fathers who cannot afford to take time off work.

Internal barriers

Some participants believed their counterparts might not even realise what they are experiencing is a mental health problem or the fact that they might need mental health help. This is directly related to MHL, the ability to recognise mental health symptoms and

disorders and the knowledge to seek information regarding these disorders, and lastly seeking appropriate help (Swami et al., 2020). Several factors may impact fathers' MHL, for example the belief that postpartum depression only or overwhelmingly affects women (Swami et al., 2020), low public awareness of male depression, and men exhibiting unique depressive symptoms different to typical notions of depression (Nadeau et al., 2016).

Stigma and stoicism toward help-seeking have been highlighted as major barriers for help-seeking in men (Lynch et al., 2018; Wong et al., 2016). Fathers in our study viewed societal and familial stigma as an obstacle to mental health help-seeking. They also described the belief that as fathers they should be 'strong' and endure adversity for the sake of their family. It seems disclosing mental health difficulty was associated with violating notions of masculinity and failing one's duties as a husband and father. Health professionals and community leaders may reduce the stigma of help-seeking by reframing the concept of help-seeking as a 'courageous' act, reminding fathers of the importance of their own wellbeing for fulfilling their paternal duties and promoting peer-lead support groups (Slewa-Younan et al., 2020; Staiger et al., 2020).

Paternal support

Fathers offered insights into how they would seek emotional and mental health support from informal and formal sources in a hypothetical scenario. As expected, spouse/partner was the most frequently cited confidant by participants, followed by family members and friends. Some participants preferred using self-directed help (e.g., online resources) before talking to someone. This may reflect fathers' reluctance to share their difficulties with others unless the situation warrants it. Family, partner, and social support have been found to be important for facilitating access to health services for fathers (Giallo et

al., 2017); this may pose a risk for fathers experiencing distress since on average, fathers seem to have smaller social support networks than mothers (Castillo & Sarver, 2012).

A variety of formal mental health support sources were mentioned by fathers. Some participants considered consulting their general practitioner (GP) to make a referral to a psychologist, who overall were perceived positively by fathers. References to GPs may show appropriate knowledge of referral processes, given that GP consultations are a common route to accessing mental health services.

Despite some fathers viewing this pathway as useful, some deemed GPs and health professionals as limited in responding to fathers' needs and solely relying on medication to manage mental health issues. Feeling overlooked by health professionals (Oliffe et al., 2020) and lack of trust in health practitioners (to adequately meet their mental health needs) (Tully et al., 2018) have been highlighted by previous research as barriers to engagement with men and fathers. In addition, some participants recommended employee assistance programmes to access mental health support; this pathway could be particularly useful for fathers who are worried about the cost and wait times of therapy. Social media and online peer support groups were viewed positively by fathers as places where fathers could share problems anonymously. Anonymity might offer a degree of protection against the stigma and negative feelings (e.g., shame) associated with disclosing difficulties (Fear et al., 2012).

Strengths and limitations

A strength of this study is the use of vignettes, which could encourage fathers to share their perceptions on topics that otherwise may have been too sensitive to disclose from a personal perspective. Responding to a sensitive subject from a third person perspective can distance the participant from certain aspects of the topic and reduce 'socially desirable' answers (Gray et al., 2017) and minimise the impacts of masculine and gender norms. The

open-ended questions also allowed fathers to regulate their input, since they could decide when and how much to contribute of their own personal experiences in response to questions. The distress measure, DASS-21 is widely used internationally and specifically in Australia and NZ (Ryan et al., 2019), enabling comparison with other studies using the same measure. Participants' DASS-21 total score (M = 17.91) was higher than the general population (M = 9.43) and almost half of the sample (41.1%) had received mental health treatment, which is also higher compared to the 12-month prevalence of NZ general population (21.3%) (Baxter et al., 2006a; Henry & Crawford, 2005). This suggests that fathers with poor mental health may be overrepresented in the current study. This overrepresentation can be seen as both a strength and a limitation; although it limits the generalisability of the findings to the broader population of fathers, those with relatively poor mental health are a key demographic to gather information from.

This study also has a number of limitations. The participants were recruited from childcare centres, schools, and sport clubs; however, some were recruited from father support groups which may have resulted in recruiting those who were already proactive in help-seeking and discussing mental health, with more vulnerable fathers such as single, low socio-economic status and unemployed being underrepresented. While our research examined fathers who identify as male, same-sex, trans and non-binary parenting is vastly under studied (Thomeer et al., 2018; Chbat et al., 2023). The sample was also predominantly European and other ethnicities, particularly indigenous (including Māori and Aboriginal and Torres Strait Islanders) and Pacific peoples, were underrepresented. Cultures have unique beliefs, attitudes, and practices related to mental health and help-seeking. Inclusion of other ethnicities is important for ensuring the effectiveness and cultural sensitivity of services and interventions offered to fathers. The next steps may include exploring the role of family and wider community in help-seeking behaviour. For example, in some cultures such as Māori, health

related decisions might be made collectively (Wilson et al., 2021). Therefore, community-led solutions could enhance the acceptability and effectiveness of the potential interventions (Farah Nasir et al., 2021).

Another limitation of the current study is the use of vignettes to describe symptoms of depression. Although there are some advantages, noted above (Swami et al., 2020; Wei et al., 2015), there is concern about the ecological validity of such approach (Furnham & Swami, 2018); it is unlikely that real life scenarios with mental health symptomology are presented this concisely and clearly. It is more likely for the individual's presentation to be discursive and convoluted (Guy et al., 2014). One way to improve this approach in future research might be the use of movie/digital representation of mental health scenarios in the form of conversation between actors or an individual describing their symptoms in common language (Swami et al., 2020). There is no widely accepted and standardised measure of MHL (Wei et al., 2016); therefore, the measure of MHL used in this study was developed for the study and its reliability and validity are unknown.

Implications and conclusion

Despite these limitations, this study provides important information on fathers' MHL and barriers and facilitators to their attitudes on mental health help-seeking. Our study demonstrated a need to improve fathers' MHL; we mainly focused on depression, but future studies should seek to better understand fathers' mental health literacy more comprehensively. Based on the current findings, it might be suggested that health professionals ought to look beyond the traditional symptoms of depression when working with fathers, and inform fathers and their partners about the different ways distress can appear in fathers. Not only may some of the distress be unique to this period of transition to fatherhood, but also it may manifest as masked depression. Our findings suggest that if

fathers are experiencing these symptoms, they may be less likely to identify them as depression, and this is one more barrier to accessing timely help. In addition, maternity care and mental health providers should be aware of the stigma experienced by fathers when responding to their needs. Fathers may be more likely to respond if asked about their current level of stress as opposed to their mood (Primack et al., 2010). Reminding fathers about the importance of their own wellbeing to own family may be a positive way to encourage help-seeking. Early fatherhood may be a great opportunity to engage fathers and improve their MHL (Giallo et al., 2017) and screen them for postnatal depression as is often done with mothers (Hammarlund et al., 2015). Parents can be educated to look for common signs of postnatal depression in their partner and be informed (e.g., through public health or maternity care) that postnatal depression is not exclusive to mothers and can also affect fathers (Asper et al., 2018).

Our findings highlighted several barriers faced by fathers, including low awareness of available services and long waiting times and cost of help-seeking. As shown in previous research, there is a great need for more services tailored to fathers' needs (Fisher et al., 2021; Pedersen et al., 2021; Isacco et al., 2016). Maternity care providers and the GPs can be helpful in sharing information about available services to fathers. There is also potential in self-help and educational tools and mobile app-based, online therapy, and remote or face to face peer support groups to reduce the cost and waiting times for fathers. In addition, fathers identified work commitments, lack of time and financial costs as barriers to seeking help. An increase in paternity leave could be helpful in promoting fathers' wellbeing, which in turn could improve family health.

5. Discussion

Research outlines

This thesis aimed to explore the experiences of fathers in the context of help-seeking. Considering the significant family role transformation, and the potential risk of elevated distress during the onset of parenthood (Kotelchuck, 2022), help-seeking can be important in alleviating the effects of paternal distress. The findings of this thesis are part of a growing scientific literature that shows a cultural and historical shift (change in norms, values, and beliefs) in the role of fatherhood in many western countries. A more modern definition of a 'good' father refers to an individual who is active in day-to-day childcare, is more emotionally expressive and intimate with his children and plays a more significant part in his children's socialisation compared to his male predecessors who allocated these responsibilities to their spouses (LaRossa, 1988). Although same-sex and nonbinary parents were by no means excluded from this research project, the fatherhood experience was mostly viewed through a heteronormative lens in a nuclear family structure. The overall aim of the thesis was to develop a better understanding of the ways fathers obtain information, advice, and help about their role as a father, and to assess facilitators and barriers to their help-seeking. Therefore, the two main aims of this thesis were as follows:

1. To explore men's transition to fatherhood and whether and how they sought support and advice throughout this process
2. To investigate factors facilitating and hindering paternal help-seeking

The first aim was an important step in filling some of the gap within the literature by learning more about fathers' experiences, in particular their sources of help/support, and what they needed help with, during the early days of parenting. Thus, paternal help-seeking needs

are better understood from fathers' own perspectives. The first study highlighted the important role of partners in providing emotional support for fathers, and the distress fathers experienced due to balancing the roles of a provider and a caring father. The first study (in-depth interviews) provided rich information which led to identification of themes/concepts and paved the way for a follow-up experimental study. The second study explored the effects of social support, particularly partner support on fathers' mental health and parenting. The third study investigated the relationship between mental health literacy and paternal mental health, and fathers' views on barriers and modes of mental health help-seeking.

There were overlaps between qualitative questions of study 1 (interviews) and study 3 (vignettes), particularly around fathers' experiences of help seeking and barriers they faced as fathers. The interviews focused on participants' general experiences of fatherhood and help seeking in early stages of fatherhood. The questions were exploratory, allowing fathers to share their insights without being prompted by specific scenarios. The vignette study had a larger sample of fathers, allowing for a broader exploration of barriers to help seeking, sources of help and identifying common themes or patterns. Using hypothetical situations followed by open-ended questions may have encouraged participants to discuss a sensitive topic more openly, which may have been more difficult through direct questions about personal experiences.

The next section provides a general discussion of the main research findings and their implications for fathers, families, and clinical practice. This is followed by presentation of the strengths and limitations of the overall research project and recommendations for future studies.

Fathers' distress, social support, and mental health: clinical implications

There were many overlaps and variations in the experiences of fathers in this project. Many fathers spoke of viewing fatherhood as an important part of their identity which was a source of happiness and pride but involved making significant changes to lifestyle and relationships. Additionally, fathers viewed work-life balance as a major stressor, and for the most part, they did not think sharing their distress with maternity care and health professionals was appropriate or welcomed. Fathers relied mostly on themselves or interpersonal and informal sources of support and overall believed that as fathers they ought to be able to manage paternal distress on their own. In general, these findings and previous research demonstrated that modern fatherhood is a complex and evolving role which can be both a source of happiness and distress (Shawe et al., 2019; Isacco et al., 2016). The scientific literature and current findings highlight the greater need for research on fathers' wellbeing and help-seeking behaviour across different stages of the child's development.

Researching fathers' wellbeing in NZ is important due to several reasons. Firstly, most of research on paternal wellbeing has been conducted in the US, Australia, and the UK (Swami et al., 2020; Isacco et al., 2016; Wong et al., 2016; Giallo et al., 2013) and although these findings are useful, they may not be completely applicable to other countries and cultures. Paternal mental health in NZ requires more attention. Men's mental health in NZ is an understudied area and mental health services are underutilised by men (Jatrana, 2021). Despite NZ men reporting lower rates of anxiety and depression than women, men comprise nearly 77% of all suicides in NZ in 2021 (Bellamy, 2022). To better understand fathers' help-seeking behaviours, it is important to examine their attitudes toward seeking help (Lynch et

al., 2018) and their parenting approach. These aspects are influenced by a range of factors including family, social and religious beliefs, and cultural norms. (Kealy & Devaney, 2023)

Due to the intertwining of personality, gender and sexual orientation, ethnicity and socioeconomic status, a plurality of masculinities may exist (Connell, 2009). Within these patterns of masculinities, one type, the hegemonic masculinity, seems to be socially and culturally dominant and endorses gendered relations between men and women, as well as between men themselves (Connell & Messerschmidt, 2005). Hegemonic masculinity is described as a series of power dynamics and behaviours that often endorse stereotypical masculine traits such as stoicism, self-control, and discouragement of adopting 'feminine' characteristics such as emotionality and openness (Jewkes et al., 2015).

Research has shown that regardless of ethnocultural backgrounds, men are socially pressured to follow these hegemonic masculine norms (Ramaeker & Petrie, 2019). However, there is also evidence of cultural variability in the context of masculinity. For example, there is evidence that before European colonisation, Māori culture allowed for flexibility in adopting masculine and feminine roles for both men and women (Gallagher et al., 2022). Furthermore, Māori had diverse views and attitudes about gender roles prior to colonisation that differed from the rigid nature of traditional western beliefs on family and gender roles (Hamley & Grice, 2021).

The current findings could suggest that the sociocultural beliefs of fathers had a significant effect on their help-seeking attitudes and parenting. These included feeling that they should be strong and not burden their wives (in the perinatal period) by sharing their emotional difficulties, the need to be the primary source of income ('breadwinner') and the belief that their needs were not important in the context of maternity care. Broadly speaking, the positive paternal involvement model (Bond, 2019) was reflected in fathers' parenting

which included spending time and playing with their child, and engagement in parenting and childcare (e.g., changing nappies). Recent experiences such as the physical isolation measures (COVID-19 lockdowns) have led parents to form new perspectives about the importance of spending more quality time with their family (Herbert et al., 2020). However, despite changes to fathers' perception on childcare and parental involvement compared to previous generations, the hegemonic masculinity remained dominant in their views on help-seeking.

Fathers found it difficult to be emotionally vulnerable and openly discuss their difficulties and there was a fear of judgement and being labelled as a 'failure' by their family or wider social circles. This is consistent with previous research that has found hegemonic/traditional masculinity to be related to a delay or hindrance of mental health help-seeking due to a perceived association of such behaviour with femininity (Krumm et al., 2017). Seidler et al. (2016) also reported a negative relationship between endorsement of traditional masculine norms and help-seeking for depression. Although some fathers were hesitant to share their struggles with others, their partner/spouse was an exception to this rule and partner support was uniquely significant in predicting paternal mental health.

Oliffe et al. (2011) discussed the influence of men's heterosexual relationships on their coping with depression. It was reported that by relying on the privacy and safety of their relationship, some men were able to talk about their emotional difficulties with their intimate partner 'behind closed doors'. Such an approach allowed men to maintain their notion of traditional masculinity in public while being supported by their partner in private (Oliffe et al., 2011). This arrangement was also observed in the current research participants whose image and identity as a provider and support figure had to be maintained in public. We also found that fathers faced a dilemma where they felt unable to seek emotional support from

their partner during her pregnancy or in postpartum due to her own distress and pregnancy related difficulties.

Social support was found to be an important factor in predicting paternal mental health, as it was associated with lower distress. This is in line with previous research indicating the positive associations of social support with mental health (Ishida et al., 2022; Gill et al., 2021; Wang et al., 2021; Harandi et al., 2017). Peer support (e.g., father support groups) may provide a space where fathers can talk openly and even anonymously (social media groups) about their difficulties. A portion of time could be allocated to discussing fathers' mental health in antenatal classes and parenting courses. This may include informing mothers of the need for partner support in parents' wellbeing and forming links with other fathers for peer support. These informal sources of support may be helpful considering some of the barriers experienced by fathers such as cost of accessing mental health services and long wait times, and the perceived unavailability of partner support in the perinatal period.

Fathers with poor relationship quality (Raouna et al., 2021) and those who lack strong social support networks (Singley & Edwards, 2015) may be at high risk of experiencing mental health difficulties (Seymour et al., 2014). It may be helpful to educate parents about the mutual effects of paternal and maternal mental health (Cameron et al., 2016) and encourage parents to look for early warning signs of postpartum depression, particularly masked depression and anxiety in each other. Parents can be reminded about the importance of healthy relationships as a protective factor against parental depression (Oyelade et al., 2020) and to allocate time to talk about their wellbeing.

Health practitioners can play an important role in improving fathers' mental health literacy (MHL) by informing them about the potential different manifestations of male depression (e.g., masked depression) and how fathers too can experience postnatal

depression. Difficulty in articulating emotional problems is one of the barriers to help-seeking for young men (Lynch et al., 2018). It is important for health professionals in perinatal and mental health to screen both mothers and fathers for mental health problems. Clinicians could ask mothers to complete a depression scale (e.g., EPDS) on their partner's behalf to complement fathers' own self-reported scale. This may alleviate the risk of men's low MHL to some extent; however, it would need psychometric validation. To our knowledge, no self-report instrument for screening perinatal depression has been specifically developed for fathers. EPDS is the most frequently used scale and reported to have the most reliability and validity (Berg et al., 2022); however, it may fail to capture typical symptoms of male depression when compared to the Gotland male depression scale (GMDS) (Habib, 2012). The GMDS is reported to be a valid screening tool for recognising depression in men (Sigurdsson et al., 2015), although it has not been studied in the perinatal period. Future studies should examine the validity of the GMDS in detecting paternal depression.

There is a paucity of interventions for paternal depression (Roberts et al., 2022). A recent systematic review of 25 years of research found no randomised control trial that included an intervention specifically for fathers (Goldstein et al., 2020). It has been suggested that fathers' engagement in services could be improved by interventions such as father-only support forums, having antenatal classes delivered by experienced fathers and the use of online support applications (Kowlessar et al., 2015). Discussing stress and work-life balance may be a good way to engage fathers about their mental health, since they may find it easier to recognise and to be open about stress compared to depression or other mental health difficulties that are in contrast with traditional masculine norms. Primack et al. (2010) conducted a successful men's stress intervention which was promoted as a workshop and used the term 'stress' instead of depression due to the negative connotations associated with mental health disorders. The workshop emphasised building social support, teaching

cognitive-behavioural coping skills, reconceptualising men's perceptions of mental health problems and treatment, and educating men on depression and the influence of stigma and masculine norms.

Mental health providers can increase their awareness of these masculine norms and the difficulty of showing vulnerability while working with fathers. Another approach to promote paternal mental health is highlighting the importance of fathers' physical and psychological wellbeing to mothers' and children's health, and how men need to maintain their health to fulfil their responsibilities as fathers. In this research, fathers reported attending health check-ups and scans with their partner, going to antenatal classes and attempting to be present for home visits. These are good opportunities to engage fathers regarding mental health. Fathers also need to be provided with information (e.g., pamphlets) about self-help resources and pathways for accessing mental health services. For example, in NZ, general practitioners (GPs) can refer patients to psychologists or counsellors which are subsidised by the government, and some employers can provide mental health support to their employees through an employee assistance programme (EAP). Some participants were aware of these support programmes, but some complained about not knowing what support was available for fathers and how to access these services. The use of stress/sick leave can be recommended by health professionals to facilitate men's access to mental health services. Online/remote mental health consultations after normal work hours may also be helpful in reducing time constraints and the distress associated with visiting a mental health practice in person.

Some participants were concerned about reliance on medication (e.g., antidepressants) as the primary treatment for mental health problems. Some studies have shown a preference for medication in men (Harris et al., 2016) and some have reported a preference for non-medical options (Sierra et al., 2014). Our results are consistent with Harding and Fox's

(2015) and Gallaghers' et al. (2022) findings who found men expressed concern over trying medication before seeking psychosocial treatment. Men's views may have been influenced by certain segments of the public's perception which deems medication as addictive and ineffective (Mirnezami et al., 2016). The current findings pointed out some fathers' willingness and preference to go beyond prescribed medication. There is evidence that men may be open to discussing their mental health and make positive changes under the right circumstances such as lifestyle interventions coupling mental health promotion with physical wellbeing (Sharp et al., 2022).

Literature also shows that past use of services (Mojtabai et al., 2016) and positive attitudes to mental health support are predictors of future help-seeking (Bonabi et al., 2016). Therefore, the initial engagement with men may be vital in developing positive attitudes toward help-seeking (e.g., commending them for their decision to seek help). Harding and Fox (2015) found that prior to help-seeking, men had a stereotypical view of psychological treatment such as a psychoanalyst's couch, mind altering and addictive medications, and some men believed prescribed medication was the only available treatment option for mental health (House et al., 2018). The current research participants viewed mental health related stigma as a major barrier to help-seeking. These findings emphasise the need for change in public beliefs on fathers' mental health and wellbeing.

It has been argued that due to relatively low rates of mental health service use in the general population, public attitudes on mental health services are largely shaped by the media (Gallagher et al., 2022), which often tend to exaggerate their reporting (Wedding, 2017). Watching news/media stories (quality and content) related to mental health services was associated with higher degrees of distress and reduced confidence in the services (Vogel et al., 2008). In contrast, previous use of mental health services was associated with endorsement of more positive views towards formal mental health support (Harris et al.,

2016; Sierra et al., 2014). Study 3 sample had high rates of mental health service use, which may limit the generalisability of the findings to the general population of fathers. Furthermore, this fact might imply the underrepresentation of those experiencing stigma, and characteristics specific to the sample (e.g., more positive views on help-seeking and having higher MHL than their peers).

It is likely that NZ men's attitudes on mental health are influenced by the local media and campaigns unique to NZ (Gallagher et al., 2022). Thus, changes in NZ's public beliefs may need an appropriate sociocultural and relatable approach. For example, a prominent former rugby player, Sir John Kirwan, has a foundation aimed at mental health education and advocacy which has been influential (Wardell, 2013). Movements such as 'Movember' in which men grow a moustache in the month of November to raise awareness and funds for men's health and mental health have become popular internationally (Paine & Smith, 2015). Public figures, athletes and local community leaders may play a substantial role in normalising conversations about mental health, especially among men.

The qualitative and the *Growing Up* studies mainly focused on early fatherhood, and most participants were fathers of infants, young children, or preschoolers (3-5 years old). Despite this, not all participants (especially those from the vignette study) were recent fathers; some reflected on their experiences when they had become a parent, and some had been a father for some time. Despite the importance of the perinatal period and the significant changes associated with transition to parenthood, parents are likely to experience other challenges and demands at different developmental stages (e.g., starting school, puberty) (Reupert & Maybery, 2016). This is an area for future research, since the focus of this thesis was largely on the early parenting experience. Parents may have an impact on developing risk of internalising or externalising disorders in their adolescent children. (Yap et al., 2014). Considering the effects of paternal mental health on the family unit (Martin et al., 2022;

O'Brien et al., 2017), fathers may need to be engaged about their mental (e.g., promoting help-seeking and raising awareness) health at different points of their fatherhood journey.

Considering the health inequities experienced by Māori (including mental health) in comparison to the general population (Baxter et al., 2006b), a culturally responsive approach is needed to support and engage Māori fathers. For example, Te Whare Tapa Whā (a Māori wellbeing model) relies on the metaphor of a wharenui (meeting house) (Durie, 2003), consisting of four fundamental pillars (domains) of wellbeing. These domains include taha wairua (spiritual wellbeing), taha hinengaro (mental wellbeing), taha tinana (bodily wellbeing) and taha whānau (family and social wellbeing) (Durie, 1985). Importantly, it is argued that difficulty in each domain has a negative impact on other areas, emphasising the holistic Māori view on health (Hamley & Grice, 2021). The benefits of using this model may include improving fathers' understanding of their wellbeing and mental health (by helping to visualise these concepts) and the impacts of their wellbeing on their family, the importance of social support and connection in wellbeing, and identifying areas that further support may be needed. It needs to be acknowledged that this thesis does not address this cultural need, and ethnicity was not specifically examined as part of the research process. Future studies need to examine the use and efficacy of Māori health models/interventions with fathers.

In summary, fathers experienced several stressors (e.g., financial, work-life balance, and relationship stress) throughout parenthood. Social support, and in particular partner support, play an important role in predicting paternal mental wellbeing. Some fathers were open to requesting help and utilised a variety of ways to cope with distress; however, they also faced internal and external barriers for accessing mental health support. There is a need for normalising help-seeking, including fathers in perinatal mental health conversations, improving fathers' mental health literacy, and reducing stigma associated with help-seeking.

Strengths, limitations & directions for future research

A strength of this thesis was the use of three distinct methods which generated rich qualitative and quantitative data. Different aspects of paternal mental wellbeing were able to be explored including protective factors and barriers to fathers' help-seeking. Overall, the three samples included a variety of ethnicities and unlike many studies relying on clinical samples, participants were recruited from the general population. In addition, not many studies have examined mental health literacy of fathers. The participants were able to share insights on their experiences related to distress of parenthood and their own mental wellbeing and coping strategies. The distress measures in the studies are used within NZ and internationally, which allows comparison with other samples and studies.

There are limitations regarding the participant cohort of this project. Firstly, the samples from the quantitative studies were mostly white/European and consisted of resident fathers. The findings may not generalise to non-European (e.g., Māori, Pacifica), younger, single, non-custodial fathers and those diagnosed with mental health disorders. Future studies would benefit from examining non-European, low socioeconomic status, and young fathers' mental health and help-seeking. Another limitation was the recruitment of some participants in the vignette study from father support groups, which may have led to an overrepresentation of those who had received mental health treatment in the vignette study. There may be differences in characteristics and attitudes of fathers recruited from these support groups compared to those who have not joined. For example, the former may have better MHL or positive views on mental health help-seeking. Study 3 recruited research participants from both NZ and Australia. Although some similarities exist between them, both countries have unique cultural contexts and Australian and NZ fathers may have different needs. From a methodological perspective, the findings of study 2 must be treated with caution due to the

use of different distress measures at pregnancy and infancy, and the use of self-reported parenting measures which only highlighted some aspects of parenting.

There are several directions for future research; descriptive or exploratory studies could extend these results by examining paternal distress and parenting measures at different developmental stages. Next steps may include exploring mothers' perception of their own capacity to support their partners in the perinatal period, the role of partners of fathers living with mental health difficulties, and the association between interparental relationships and paternal mental health. Future research should seek to understand the role of cultural beliefs and practice in help-seeking and parenting roles in different groups of fathers (e.g., parents of infants in neonatal intensive care unit or children with special needs).

Stigma should be further researched in the context of paternal mental health help-seeking and engagement with health professionals. Future research could describe the factors that encouraged fathers to seek informal or formal help for the first time (e.g., receiving treatment for the first time, confiding to a friend or family member, or joining a support group). Since this may be particularly influential in developing positive attitudes toward help-seeking. There is a need for development of father-oriented screening instruments and interventions that consider concepts such as masculinity, stigma, and masked depression. Lastly, future research must determine the effectiveness of different approaches to improve fathers' mental health and MHL. These may include online/self-help courses, discussion of postnatal depression with both parents initiated by health professionals, educational materials (e.g., pamphlets) about paternal depression, group therapy, peer support, anonymous social media forums, and importantly inquiring about fathers' preferences, as strategies effective for mothers may not necessarily suit men.

Conclusion

This thesis aimed to explore men's experiences as fathers, their mental wellbeing, coping strategies, and facilitators and barriers to help-seeking. These findings showed the balance between being a provider and an involved parent (work-life balance) was a source of distress for fathers. Fathers used several informal and formal sources of support, but within these, social support and in particular, partner support, played an important role in fathers' mental health. Furthermore, fathers often relied on their partner for emotional support but felt seeking support from her while she was coping with pregnancy and parenting was unacceptable. No evidence was found that partner support buffered the negative effects of distress on parenting. Fathers were less likely to recognise 'masked depression' compared to clear symptoms of depression. Stress was not significantly associated with MHL—it was associated with mistakenly considering stress a mental health problem. Lastly, fathers experienced several internal and external barriers to help-seeking such as stigma and time/cost.

In conclusion, findings from this thesis and the current literature demonstrate that fatherhood today can be a meaningful but stressful experience. Paternal distress could pose different challenges for fathers depending on factors such as coping skills, social and partner support, stigma, mental health literacy, and work-life balance. As paternal distress not only has a negative impact on fathers, but also on mothers and children, it requires more attention. A more comprehensive examination of paternal mental health and parenting outcomes at various developmental stages may be beneficial. The key directions of future research may include development of paternal distress screening tools, and evaluation of interventions aimed at reducing mental health stigma and improving mental health literacy and help-seeking.

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Appendices

Supplementary data

Study 1 appendix I: Information sheet

THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Becoming a father

Information Sheet

I'm Amin Ghaleiha, a doctoral student in psychology at the University of Waikato. I'm interested in the experience of men as they become fathers, and as a part of my research I'm interested in talking with a variety of fathers (young and older, Pākehā, Māori, and migrants) about their journey into fatherhood.

The aim of this study is to examine fathers' experiences, especially the ways they get information, advice, and help about fatherhood and childcare, and what kinds of people they talk to in times of need. Your participation in the study will consist of talking with me for about 40 minutes; I will have some questions, but you are welcome to tell me your story in the way that works best for you. You don't have to answer any question you don't want to, and you can end the interview any time you choose.

The interview will be recorded using a voice recorder software and transcribed and the information used to prepare a PhD thesis, Interview recordings and transcripts will be stored in password protected files for at least 5 years. The data will also be used for preparing a manuscript for publication in an academic journal. All the provided information will be regarded as highly confidential. Only the researcher and the supervisors will have access to them. No identifying information will be used in either the thesis or manuscript. Participants will be given a copy of their transcript and will have the opportunity to make corrections before approving use of their transcript. They may withdraw from the study at any time up

until this point. Participants will have the option of receiving a summary of the research findings. They have the right to decline answering any question and ask any further questions regarding the research that occur to them during the interview.

Please contact the primary researcher (Amin Ghaleiha, ag92@students.waikato.ac.nz) if you need more information. If you have any concerns you can contact the researcher or the research supervisor (Dr Carrie Barber, carrie.barber@waikato.ac.nz). This research has been approved by the University of Waikato Psychology Research and Ethics Committee. You may contact the convenor of the committee (Dr Rebecca Sargisson, phone 07 837 9580, rebecca.sargisson@waikato.ac.nz).

Study 1 appendix II: Digital advertisement

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Becoming a father

I'm Amin Ghaleiha, a doctoral student in psychology at the University of Waikato. I'm interested in the experience of men as they become fathers, and as a part of my research I'm interested in talking with fathers about their journey into fatherhood.

We need you! Participants wanted

What does the study include?

- A face to face interview that will take 40 minutes
- Most questions will be about the beginning of fatherhood, memories of becoming a father, and getting information about being a father

Email me, ag92@students.waikato.ac.nz or my supervisor Dr Carrie Barber, carrie.barber@waikato.ac.nz for more information.

Study 1 appendix III: Interview questions

The interview

The introduction of the research: the aim of this study is to examine fathers' experiences, especially the ways they get information, advice, and help about fatherhood and child care, and what kinds of people they talk to for support. The interview will start with some general questions about yourself and your family, and later we'll talk about your partner's pregnancy, your child's birth and its aftermath, healthcare services, and kinds of people or resources that have been helpful to you.

Prenatal phase

- Tell me about your family?
- Tell me about when your partner got pregnant
    - How did you find out?
    - What was your first reaction?
- Did you know much about the process of pregnancy and childbirth before your partner's [name] pregnancy?
    - If yes, how did you learn? (the source of knowledge)
- How did the pregnancy go?
- Did you go with your partner to any of her appointments, like scans?
    - How did that go?
- Did you go to any antenatal classes?
    - What was that like for you? Did you feel that the father's questions and needs were included?
- In any of these places, did anyone talk with you about the stresses or difficulties of becoming a parent?
    - Did anyone talk about mental health, like depression or anxiety, in mothers or fathers?
    - Did they say anything about how someone might get help?
- How did the pregnancy affect your relationship with your partner?
- Did you talk to someone about it?
- Who did you talk to about your responsibilities during your wife's pregnancy? (E.g. senior members of the family, colleagues etc.)

Postnatal phase

- How was the birth?
    - Who was there?
- How did you support your wife and the baby after delivery?

Postnatal phase (Early infancy)

- How did those first few weeks go?
- Did you get any advice?
    - Was it because you asked, or because people just offered it?
- What was the hardest part of that early stage when [name] was a baby?
    - How did you cope with it?
    - Did you talk to anyone? What was helpful?

Healthcare providers

- Did you go with your partner to her appointments after [name] was born?
    - What kind of information did they provide?

    - What did they talk to you about?
    - Did anyone ask how you were doing?

Concept of fatherhood

- When did you start to feel like a dad?
- How did your relationships change (with your wife and child) as the baby grew older?
- Who do you seek help/support from if you needed it?
    - (Practical support such as bottle feeding or more emotional support when you feel distressed or down)
- How has the experience of having your first child been helpful to raising your second child (If they have had more than one child)?

The last stage of the interview

- If you were really stressed or had a problem, who would you talk to?
    - Who would you have gone to for help/support?
    - Anybody else?
- Did you ever feel you could talk to your GP or the Plunket nurse?
- Have you ever had depression or anxiety? Have you received any treatment?
- What kind of advice would be helpful for future dads?
- What did you wish that could be there for families and dads in particular?
- Is there something about being a dad/fatherhood that you would like to add?

Study 1 appendix IV: Consent form

Appendix D

School of Psychology

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

CONSENT FORM

A completed copy of this form should be retained by both the researcher and the participant. [Note: you may delete or reword any items that are not relevant to your research and add items that are relevant to your research – **please ensure that the crest and logo above appear on the top of the page**]

Research Project: _____

Please complete the following checklist. Tick (✓) the appropriate box for each point.	**YES**	**NO**
1. I have read the Participant Information Sheet (or it has been read to me) and I understand it.		
2. I have been given sufficient time to consider whether or not to participate in this study		
3. I am satisfied with the answers I have been given regarding the study and I have a copy of this consent form and information sheet		
4. I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without penalty		
5. I have the right to decline to participate in any part of the research activity		
6. I know who to contact if I have any questions about the study in general.		
7. I understand that the information supplied by me could be used in future academic publications.		
[Other?] Adapt the consent form to suit your study – add or remove things from this list as appropriate – for example if you are doing interviews you may wish to include a statement about the interview being recorded, for example …..		
I understand that my participation in this study is confidential and that no material, which could identify me personally, will be used in any reports on this study.		
I wish to receive a copy of the findings		
I wish to view the summary report of my interview		

Declaration by participant:
I agree to participate in this research project and I understand that I may withdraw at any time. If I have any concerns about this project, I may contact the convenor of the Psychology Research and Ethics Committee (Dr Rebecca Sargisson, phone 07 837 9580, email: rebecca.sargisson@waikato.ac.nz)

Participant's name (Please print): _____

Signature: _____ Date: _____

Declaration by member of research team:
I have given a verbal explanation of the research project to the participant, and have answered the participant's questions about it. I believe that the participant understands the study and has given informed consent to participate.

Researcher's name (Please print): _____

Signature: _____ Date: _____

Psyc Café/Forms and Guides/Research forms/Consent Form

Study 1 appendix V: The list of services for parents

The list of services and information centres for parents:

- Father and Child Trust Aotearoa (http://fatherandchild.org.nz/)
- Parent Help (http://www.parenthelp.org.nz/)
- Great Fathers (http://www.greatfathers.org.nz/greatfathers/)
- Plunket (https://www.plunket.org.nz/) 0800 933 922 for parenting help
- Union for Fathers, Caro street community building adjacent to Hamiltion City Council, Hamilton, New Zealand Every Thursday 7pm. Fraser (021) 396 728, answer service on 0508 2255 323
- The Waikato Family Centre, 4 Radnor Street, Hamilton, Phone 07 834 2036. (http://www.waikatofamilycentre.co.nz/How-we-can-help/Advice-for-Dads)

Study 2 appendix I: Data collection wave instruments

Table 14

The list of measures used in the current study

Data collection wave	Measures	Domain/construct
Antenatal	Edinburgh postnatal depression scale (EPDS)	Mental health
Antenatal	Perceived stress scale (PSS)	Psychological and cognitive Development- parental stress
Antenatal	Parenting social support scale	Family and Whanau- parenting support
9-month	The patient health questionnaire (PHQ9)	Psychological and cognitive development- mental health
Antenatal	Source of stress (SS)	Mental health
Antenatal	Parental responsibility	Family and Whanau- parent-child relationship/affiliation
9-month	Parental satisfaction	Development Social and emotional adjustment
2-year	Parent-child affiliation	Family and Whanau- parent-child relationship/affiliation
2-year	Parental enjoyment	Family and Whanau- parent-child relationship/affiliation

Study 2 appendix II: The items and the response scales

Edinburgh postnatal depression scale (EPDS)

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Section B: Psychological & Cognitive

People's thoughts and feelings often differ when their partner is pregnant.
I would like to ask you some questions about how things have been going for you in the last seven days. Although some of the questions seem similar, there are differences between them, so please treat each one as a separate question. Please read out the number which comes closest to how you have felt in the past 7 days – not just how you feel today.

SHOWCARD EDI1

EDI1. So, in the last 7 days I have been able to laugh and see the funny side of things:

As much as I always could = 0
Not quite so much now = 1
Definitely not so much now = 2
Not at all = 3
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI2

EDI2. In the last 7 days I have blamed myself for no particular reason when things went wrong:

Yes, most of the time = 3
Yes, some of the time = 2
Not very often = 1
No, never = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI3

EDI3. In the last 7 days I have been anxious or worried for no particular reason:

No, not at all = 0
Hardly ever = 1
Yes, sometimes = 2
Yes, very often = 3
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI4

EDI4. In the last 7 days I have felt scared or panicky for no particular reason:

Yes, quite a lot = 3
Yes, sometimes = 2
No, not much = 1
No, not at all = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI5

EDI5. In the last 7 days things have been getting too much for me:

Yes, most of the time I haven't been able to cope at all = 3
Yes, sometimes I haven't been coping as well as usual = 2
No, most of the time I have coped quite well = 1
No, I have been coping as well as ever = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI6

EDI6. In the last 7 days I have been so unhappy that I have had difficulty sleeping:

Yes, most of the time = 3
Yes, sometimes = 2
Not very often = 1
No, not at all = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI7

EDI7. In the last 7 days I have felt sad or miserable:

Yes, most of the time = 3
Yes, quite often = 2
Not very often = 1
No, not at all = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI8

EDI8. In the last 7 days the thought of harming myself has occurred to me:

Yes, quite often = 3
Sometimes = 2
Hardly ever = 1
Never = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI9

EDI9. In the last 7 days I have been so unhappy that I have been crying:

Yes, most of the time = 3
Yes, quite often = 2
Only occasionally = 1
No, never = 0
DO NOT READ OUT DK/Ref = 9

SHOWCARD EDI10

EDI10. In the last 7 days I have looked forward with enjoyment to things:

As much as I ever did = 0
Rather less than I used to = 1
Definitely less than I used to = 2
Hardly at all = 3
DO NOT READ OUT DK/Ref = 9

Optional interviewer comment if the person found the questionnaire a bit odd or upsetting:
You can explain that this questionnaire is used internationally in similar studies and to make comparisons we need to ask the same questions.

Perceived stress scale (PSS)

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The last set of questions asked about your thoughts and feelings over the last week. I would now like to ask you about your feelings and thoughts over the last four weeks. In each case you will be asked *how often* you felt or thought in a certain way. Although some of the questions seem similar, there are differences between them, so please treat each one as a separate question.

SHOWCARD PSS1-10

PSS1. In the last four weeks, how often have you been upset because of something that happened unexpectedly?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS2. In the last four weeks, how often have you felt that you were unable to control the important things in your life?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS3. In the last four weeks, how often have you felt nervous and stressed?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS4. In the last four weeks, how often have you felt confident about your ability to handle your personal problems?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS5. In the last four weeks, how often have you felt that things were going your way?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS6. In the last four weeks, how often have you found that you could not cope with all the things that you had to do?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS7. In the last four weeks, how often have you been able to control the irritations in your life?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS8. In the last four weeks, how often have you felt that you were on top of things?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS9. In the last four weeks, how often have you been angered because of things that were outside of your control?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

PSS10. In the last four weeks, how often have you felt difficulties were so great that you could not overcome them?

Never	Almost never	Sometimes	Fairly often	Very often	DK/Ref **DO NOT READ OUT**
0	1	2	3	4	9

Parenting social support scale

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SHOWCARD SPF1-SPE6

I am going to list some sources that are sometimes helpful to caregivers raising young children. Please indicate how helpful you **EXPECT** each source of support to be when your baby is born.
If any of these sources are not available to you, choose 'Not Available'.

How helpful do you expect ….(insert source of help) to be generally?

		Helpfulness Please circle ONE per source					
	Source of help	Not available	Not at all helpful	Sometimes helpful	Generally helpful	Very helpful	Extremely helpful
SPF1	Your partner	1	2	3	4	5	6
SPF2	Your parent/s	1	2	3	4	5	6
SPF3	Your partner's parent/s	1	2	3	4	5	6
SPF4	Your extended family (cousins, brothers and sisters, grandparents, etc)	1	2	3	4	5	6
SPF5	Your partner's extended family (cousins, grandparents, brothers and sisters, etc)	1	2	3	4	5	6
SPF6	Your friends	1	2	3	4	5	6
SPE1	Your family doctor	1	2	3	4	5	6
SPE2	Professionals (e.g Plunket nurse, kaiawhina)	1	2	3	4	5	6
SPE3	Kindy, Preschool, day care, Kohanga Reo etc.	1	2	3	4	5	6
SPE4	Early parenting support programmes e.g. Parents as First Teacher	1	2	3	4	5	6
SPE5	Books	1	2	3	4	5	6
SPE6	Internet	1	2	3	4	5	6

If DK/Ref Code 9

The patient health questionnaire (PHQ9)

YOUR PERSONAL WELLBEING

People's thoughts and feelings often differ once they have a baby.

Over the LAST TWO (2) WEEKS, how often have you been bothered by the following problems?

RESPONSE OPTIONS:
1. Not At All
2. Several Days
3. More Than Half The Days
4. Nearly Every Day

Interviewer Note: Code ONE.

NO.	QUESTION	Not At All	Several Days	More Than Half The Days	Nearly Every Day	Refused	Don't Know
P65	Little interest or pleasure in doing things	1	2	3	4	98	99
P66	Feeling down, depressed, or hopeless	1	2	3	4	98	99
P67	Trouble falling or staying asleep, or sleeping too much	1	2	3	4	98	99
P68	Feeling tired or having little energy	1	2	3	4	98	99
P69	Poor appetite or overeating	1	2	3	4	98	99
P70	Feeling bad about yourself—or that you are a failure or have let yourself or your family down	1	2	3	4	98	99
P71	Trouble concentrating on things, such as reading the newspaper or watching television	1	2	3	4	98	99
P72	Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	1	2	3	4	98	99
P73	Thoughts that you would be better off dead or of hurting yourself in some way	1	2	3	4	98	99

Source of stress (SS)

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To what extent are the following a source of stress for you and your family

SHOWCARD FS1-6

FS1. Worry about a disabled or ill family member:

Not at all stressful	Somewhat stressful	Moderately stressful	Highly stressful	Not Applicable	DK/Ref **DO NOT READ OUT**
1	2	3	4	5	9

FS2. Worry about **current** housing difficulties:

Not at all stressful	Somewhat stressful	Moderately stressful	Highly stressful	Not Applicable	DK/Ref **DO NOT READ OUT**
1	2	3	4	5	9

FS3. Worry about balancing work and family life:

Not at all stressful	Somewhat stressful	Moderately stressful	Highly stressful	Not Applicable	DK/Ref **DO NOT READ OUT**
1	2	3	4	5	9

FS4. Worry about money problems:

Not at all stressful	Somewhat stressful	Moderately stressful	Highly stressful	Not Applicable	DK/Ref **DO NOT READ OUT**
1	2	3	4	5	9

FS5. Worry about family members not getting on:

Not at all stressful	Somewhat stressful	Moderately stressful	Highly stressful	Not Applicable	DK/Ref **DO NOT READ OUT**
1	2	3	4	5	9

FS6. Worry about another child's behaviour:

Not at all stressful	Somewhat stressful	Moderately stressful	Highly stressful	Not Applicable	DK/Ref **DO NOT READ OUT**
1	2	3	4	5	9

Parental responsibility

Role Sharing/Involvement

Mother and Partner

The next questions are about how you and your partner manage the care of your family, and everyday tasks around the home.

	1) Not Much Of The Time	2) Some Of The Time	3) Most Of The Time	4) All Of The Time	Ref	DK
M165 (INV1) To what extent are you involved in the day to day care of your [CHILD/CHILDREN], for example cooking, comforting, bathing?	◯	◯	◯	◯	◯	◯
M166 (INV2) How involved is your partner in the day to day care of your [CHILD/CHILDREN]?	◯	◯	◯	◯	◯	◯
M167 (INV3) How much of the time are you directly responsible for your [CHILD/CHILDREN], for example, in sole care of [HIM/HER/THEM], making babysitting arrangements, looking after [HIM/HER/THEM] if they are sick?	◯	◯	◯	◯	◯	◯
M168 (INV4) How often is your partner directly responsible for your [CHILD/CHILDREN]?	◯	◯	◯	◯	◯	◯

Parental satisfaction

BEING THE PARENT OF A NEW BABY

Now I would like to ask you some questions about what it has been like being the parent of a new baby. For each question, please point to the number on the card that best shows your answer.

NO.	QUESTION	RESPONSE SCALE/SHOWCARD						REFUSED	DON'T KNOW
P28	How satisfying has being the parent of [a new baby/your new babies] been for you?	Not At All Satisfying					Completely Satisfying		
	Interviewer Note: Code ONE.	1	2	3	4	5	6	98	99
P29	How much do you think that you positively affect your [baby's/babies'] development?	Not At All					A Great Deal		
	Interviewer Note: Code ONE.	1	2	3	4	5	6	98	99
P30	How much have the tasks of taking care of [a new baby/your new babies] been satisfying to you?	Not At All Satisfying					Completely Satisfying		
	Interviewer Note: Code ONE.	1	2	3	4	5	6	98	99
P31	How much do you think your [baby enjoys/babies enjoy] [HIS/HER/THEIR] interactions with you?	Not At All					A Great Deal		
	Interviewer Note: Code ONE.	1	2	3	4	5	6	98	99
P32	How much of the time can you tell what your [baby needs/babies need]?	Hardly Ever					Almost All Of The Time		
	Interviewer Note: Code ONE.	1	2	3	4	5	6	98	99

NO.	QUESTION	RESPONSE SCALE/SHOWCARD						REFUSED	DON'T KNOW
P33	**How much [does the baby seem like a person, with his/her own personality/do the babies seem like persons, with their own personalities], to you?** *Interviewer Note: Code ONE.*	Very Little Of The Time					All Of The Time		
		1	2	3	4	5	6	98	99
P34	**How well do you think that you know your [baby/babies]?** *Interviewer Note: Code ONE.*	Hardly At All					Very Well		
		1	2	3	4	5	6	98	99
P35	**How well are you meeting your expectations for yourself as a parent of [a new baby/your new babies]?** *Interviewer Note: Code ONE.*	Not At All					Completely		
		1	2	3	4	5	6	98	99
P36	**How much [has the baby's/have the babies'] growth and development been a source of satisfaction to you?** *Interviewer Note: Code ONE.*	Not At All					A Great Deal		
		1	2	3	4	5	6	98	99
P37	**How in tune with your [baby/babies] do you feel?** *Interviewer Note: Another way to phrase the question is: "How much do you feel like you and your [baby/babies] are in harmony with each other?"* *Interviewer Note: Code ONE.*	Not At All In Tune					Completely In Tune		
		1	2	3	4	5	6	98	99
P38	**How satisfied are you with the way that you relate to your [baby/babies] and your [baby's/babies'] needs?** *Interviewer Note: Code ONE.*	Not At All Satisfied					Completely Satisfied		
		1	2	3	4	5	6	98	99

Parent-child affiliation

M2 (TSInfo1) **SC M3**

Time Spent With Your Child

Mother and Partner

I will read you a number of statements describing the way different parents act toward their children. Listen to each statement and decide how well it describes you and your [CHILD/CHILDREN]. Remember there are no right or wrong answers. Respond to each statement the way you feel you really are rather than the way you might like to be.

	1) Almost Always True	2) Mostly True	3) Occasionally True	4) Almost Never True	Ref	DK
M3 (TS1) I say nice things about my [CHILD/CHILDREN]	◯	◯	◯	◯	◯	◯
M4 (TS2) I take an active interest in my [CHILD/CHILDREN]	◯	◯	◯	◯	◯	◯
M5 (TS3) I am interested in the things my [CHILD DOES/CHILDREN DO]	◯	◯	◯	◯	◯	◯
M6 (TS4) I praise my [CHILD/CHILDREN] when [HE/SHE/THEY] deserves it	◯	◯	◯	◯	◯	◯
M7 (TS5) I enjoy having my [CHILD/CHILDREN] around me	◯	◯	◯	◯	◯	◯
M8 (TS6) I tell my [CHILD/CHILDREN] how proud I am of [HIM/HER/THEM] when [HE/SHE/THEY] are good	◯	◯	◯	◯	◯	◯
M9 (TS7) I make my [CHILD/CHILDREN] feel proud when [HE/SHE DOES/THEY DO] well	◯	◯	◯	◯	◯	◯
M10 (TS8) I talk to my [CHILD/CHILDREN] in a warm and affectionate way	◯	◯	◯	◯	◯	◯
M11 (TS9) I make my [CHILD/CHILDREN] feel what [HE/SHE DOES/THEY DO] is important	◯	◯	◯	◯	◯	◯
M12 (TS10) I pay a lot of attention to my [CHILD/CHILDREN]	◯	◯	◯	◯	◯	◯
	1) Almost Always True	2) Mostly True	3) Occasionally True	4) Almost Never True	Ref	DK
M13 (TS11) I try to make my [CHILD/CHILDREN] happy	◯	◯	◯	◯	◯	◯
M14 (TS12) I like to spend time with my [CHILD/CHILDREN]	◯	◯	◯	◯	◯	◯

Parental enjoyment

M32 (PIDInfo2)

SC M33

Parental Enjoyment

Mother and Partner

Could you please tell me how much you agree or disagree with the following statements?

	1) Strongly Disagree	2) Disagree	3) Neither Agree or Disagree	4) Agree	5) Strongly Agree	Ref	DK
M33 (PID4) When I engage in caring for my [CHILD/CHILDREN], the main reason is to help my partner.	○	○	○	○	○	○	○

SC M34 Could you please tell me how much you agree or disagree with the following statements?	1) Strongly Disagree	2) Disagree	3) Neither Agree or Disagree	4) Agree	5) Strongly Agree	Ref	DK
M34 (PID5) On the whole, I enjoy being a parent.	○	○	○	○	○	○	○
M35 (PID6) On the whole, I think I parent in a similar way to how I was parented.	○	○	○	○	○	○	○
M36 (PID7) Being a parent is very satisfying.	○	○	○	○	○	○	○
M37 (PID8) On the whole, my [CHILD IS/CHILDREN ARE] easy to parent.	○	○	○	○	○	○	○
M38 (PID9) On the whole, it's good to be a parent.	○	○	○	○	○	○	○

Study 3 appendix I: Information sheet

Fathers' views on coping with the stress of parenting

Thank you for your interest in helping with this study! My name is Amin Ghaleiha, and I am a doctoral student in psychology at the University of Waikato. I am interested in the experience of men as they become fathers.

The aim of this study is to explore fathers' opinions and knowledge on what men should do as they cope with the stress of parenting. We are looking for fathers with children aged 12 or younger. Your participation in the study will consist of answering a few questions about yourself and your family and completing a survey. This survey will take 10-15 minutes. You will be presented with nine scenarios about fathers coping with parenting and answer a couple of follow up questions about each of them. You do not have to answer any questions you do not want to, and you can end the study any time you choose. You will also be asked to complete a measure asking about your own current levels of stress and distress.

Your participation could help health professionals understand how to engage with fathers more effectively and may also lead to designing programmes that meet new parents' needs better. The information you provide will be used to prepare a PhD thesis at the University of Waikato, School of Psychology, and may also be presented at professional conferences and published in the scientific literature. The data will be retained for at least 5 years following completion of the study. All the provided information will be completely anonymous. Only the researcher and the supervisors will have access to them. You will not be asked to provide

any identifiable information. For every completed survey, $1 will be donated to Kidz Need Dadz (a NZ charity to support father-child relationships).

Please contact the primary researcher (Amin Ghaleiha, ag92@students.waikato.ac.nz) if you need more information. This research has been approved by the University of Waikato Human Research Ethics Committee (Health 2021#82). You may choose to receive a summary of the research findings by following a link at the end of the survey. Any questions about the ethical conduct of this research may be sent to the ethics committee (humanethics@waikato.ac.nz).

I agree to participate in this research and understand that I may withdraw from this study by not finishing or submitting the survey. If I have any concerns about the ethical conduct of this study, I may contact the secretary of the Human Research Ethics Committee via humanethics@waikato.ac.nz or by mail at Human Ethics, University of Waikato, Private Bag 3105, Hamilton 3240.

○ Yes (1)

○ No (2)

If 'No' was chosen, the survey will end, and the participants will be shown the following message: Thank you for your interest in helping with this study! And a list of contacts of support services.

Q2 Do you have children aged 12 or below?

○ Yes (1)

○ No (2

If ‘No’ was chosen, the survey will end, and the participants will be shown the following message: Thank you for your interest in helping with this study! Unfortunately, you are not eligible to participate in this study. [This will be followed by a list of support services]

Study 3 appendix II: The survey

Q3 How many children do you have?

- ○ 1
- ○ 2
- ○ 3
- ○ 4 or more

Q4 How old is your youngest child (in years)?

_____

Q5 How old are you (in years)?

_____

Q7 How do you describe your ethnicity? (Please select all that apply)

- □ European
- □ Indigenous peoples
- □ Māori
- □ Aboriginal
- □ Torres Strait Islanders
- □ Pacific Peoples
- □ Asian
- □ Indian
- □ Middle Eastern
- □ Latin American
- □ African

Other (please specify) _____

Please read the following scenarios and answer the subsequent questions.

[Scenarios are labelled for purpose of review, but this will not show to the participants]

[Masked depression]

Mateo and Aria live in a small city with their 2-year-old daughter. Mateo and Aria both work full time. Mateo works long night shifts at a warehouse. He feels unmotivated and can't be bothered eating lunch with his work friends or catching up with them after work. He is grumpy and argumentative with Aria at home most days of the week which leads to Mateo feeling overwhelmed. Mateo and his family try to spend time with friends and family at least twice a month, but lately Mateo seems disinterested.

1- Do you think Mateo has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Mateo needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Clear symptoms of depression]

Akshay and Brinda have been married for 5 years and have two children 5 and 3 years old. Akshay works full time as a chef. The family is on a tight budget. Akshay was reprimanded by his boss last week for not turning up to work for a few days. Akshay reports having little interest in doing things he once found enjoyable, feeling like a failure for letting his family down, feeling hopeless about the

future and having little energy throughout the day. He has been crying at night after Brinda goes to sleep.

1- Do you think Akshay has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Akshay needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Daily stress]

Gregory and Maria have been married for 6 years. They have two children: a 4 year old and a new-born. Gregory was able to take some time off work after the baby was born. Maria's parents have also been able to stay with them. Gregory is tired a lot, and has noticed an increase in his caffeine consumption. He also feels annoyed sometimes by having his in-laws around the house. Gregory goes to the gym twice a week and tries to eat healthy meals.

1- Do you think Gregory has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Gregory needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Masked depression]

Ali and Fatima have three children aged 12, 7, and 3 years. They live in their own family home in a big city. Both parents work full-time, and the children go to school or day care. Ali has noticed overeating to deal with stress. He has mood swings throughout the day and struggles to get enough sleep at night. He feels lonely and isolated. Lately he stays in bed instead of going out to see his friends on weekends.

1- Do you think Ali has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Ali needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Daily stress]

Nikau is a 33-year-old father living with his wife Mia and their 7-year-old child. Nikau says he tends to overreact to Mia's criticisms in the past few days. She wants him to be more involved in taking care of their child. Nikau finds balancing work and family responsibilities stressful. He works long hours and does not get enough sleep on weekdays but catches up on sleep on weekends.

1- Do you think Nikau has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Nikau needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Clear symptoms of depression]

Peter is 32 and divorced. He teaches at the local high school. He sees his children aged 11 and 6 on alternative weekends. Even though his friends and family think he is fine, Peter cries in his car on the way home from work. He feels down most days of the week after work. Peter feels as if he has nothing to look forward to. He feels trapped and like he is not a good enough father. He can't imagine things getting any better. His colleagues have noticed him being less social at work and isolated.

1- Do you think Peter has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Peter needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Masked depression]

Lixin is a 24-year-old father who lives with his wife, Mei and two children aged 5 and 2. He had to pick up more hours at work after the birth of their second child. He has lost his appetite and often skips lunch or breakfast. He drinks 3-4 cans of beer and smokes marijuana after dinner. His colleagues have noticed him getting very frustrated and agitated about little things at work that never used to bother him.

1- Do you think Lixin has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Lixin needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Diagnostic symptoms of depression]

Adam and his partner Briley have a 4-year-old son and live with Adam's parents. Adam works as a construction worker. He no longer attends rugby training, and his friends have not seen him in weeks. He says he feels worthless and has gotten into trouble at work for underperforming. His parents told him to 'toughen up' and get his act together. He has persistent thoughts of something terrible happening. Adam and Briley no longer go on their monthly dates.

1- Do you think Adam has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Adam needs help?

Definitely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

[Daily stress]

Sam is a 38-year-old father who lives with his wife, Brittany, and their 12, 9 and 6 year old children in their family home. Sam has gained some weight over the past two months. He has also noticed feeling more irritable than usual getting into arguments with Brittany and the children, but things calm down after an hour or so. Sam says he has a couple of energy drinks a day to keep up with the demands of work and to deal with feeling tired at work.

1- Do you think Sam has a mental health problem?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

2- Do you think Sam needs help?

Definietely no	Possibly no	Possibly yes	Definitely yes
1	2	3	4

1- If a father needed mental health support, what kind of things would prevent him from getting help?

2- If you were experiencing some of the difficulties like those fathers you read about today and thought you needed help, how would you get help?

3- Have you ever received treatment for a mental health disorder? (e.g., depression, anxiety, substance abuse)

Yes ◯ No ◯

DASS-21

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you **over the past week**. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree or a good part of time
3 Applied to me very much or most of the time

1 (s)	I found it hard to wind down	0	1	2	3
2 (a)	I was aware of dryness of my mouth	0	1	2	3
3 (d)	I couldn't seem to experience any positive feeling at all	0	1	2	3
4 (a)	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 (d)	I found it difficult to work up the initiative to do things	0	1	2	3
6 (s)	I tended to over-react to situations	0	1	2	3
7 (a)	I experienced trembling (e.g. in the hands)	0	1	2	3
8 (s)	I felt that I was using a lot of nervous energy	0	1	2	3
9 (a)	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 (d)	I felt that I had nothing to look forward to	0	1	2	3
11 (s)	I found myself getting agitated	0	1	2	3
12 (s)	I found it difficult to relax	0	1	2	3
13 (d)	I felt down-hearted and blue	0	1	2	3
14 (s)	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15 (a)	I felt I was close to panic	0	1	2	3
16 (d)	I was unable to become enthusiastic about anything	0	1	2	3
17 (d)	I felt I wasn't worth much as a person	0	1	2	3
18 (s)	I felt that I was rather touchy	0	1	2	3
19 (a)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
20 (a)	I felt scared without any good reason	0	1	2	3
21 (d)	I felt that life was meaningless	0	1	2	3

4- For you, what are the best things about being a father?

Thank you so much for completing this survey! The information you provided can help families and fathers in future.

If you're feeling distressed, there is help available. In New Zealand, you can call or text 1737 any time, or call Lifeline at 0800 543 354. In Australia, you can call Lifeline at 13 11 14. Some good information about taking care of your mental health is available at:

https://www.plunket.org.nz/being-a-parent/being-a-dad/your-mental-health/

If you would like to be sent a summary of the results of this study later in the year, please follow this link: e-mail list

Co-authorship forms

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Nature of contribution by PhD candidate	Amin Ghaleiha
Extent of contribution by PhD candidate (%)	75

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Dr Amy Bird	Feedback on drafts of the manuscript and responses to reviewers
Dr Armon Tamatea	Feedback on drafts of the manuscript and design of the study
Amin Ghaleiha	Conceptualisation of the study, ethics approval, data collection and analysis, main author of the paper

Certification by Co-Authors

The undersigned hereby certify that:

- the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

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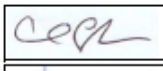
Dr Carrie Barber		16/8/23
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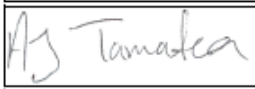
Dr Armon Tamatea		21/08/23
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Nature of contribution by PhD candidate	Amin Ghaleiha
Extent of contribution by PhD candidate (%)	70

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Dr Amy Bird	Advice on design, data access application, data analysis and drafts of the manuscript
Dr Armon Tamatea	Feedback on drafts of the manuscript
Dr Lisa Underwood	Data collection, feedback on the research proposal and the final draft of the manuscript
Associate Professor Polly Atatoa Carr	Data collection, feedback on the research proposal and the final draft of the manuscript
Professor Susan Morton	Data collection, feedback on the research proposal and the final draft of the manuscript
Amin Ghaleiha	Conceptualisation of the study, data access application, analysis, main author of the paper

Certification by Co-Authors

The undersigned hereby certify that:

- the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
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Dr Amy Bird		17/8/23
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Nature of contribution by PhD candidate	Amin Ghaleiha
Extent of contribution by PhD candidate (%)	70

CO-AUTHORS

Name	Nature of Contribution
Dr Carrie Barber	Advice on design and analysis and feedback on drafts of the manuscript
Dr Amy Bird	Consultation on design and analysis, and feedback on drafts
Dr Armon Tamatea	Feedback on design and drafts of the manuscript
Amin Ghaleiha	Conceptualisation of the study, ethics approval, data collection and analysis, main author of the paper

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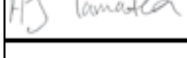
Dr Armon Tamatea		21/8/23
Amin Ghaleiha		13/8/23

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