Development and Validation of the Early Parenting Support Network Questionnaire: Adding more dimensions to social support research

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Development and Validation of the Early Parenting Support Network Questionnaire

Abstract

Instruments measuring social support in parenting often only measure the source or type of support offered, or the perceived helpfulness of that support. They often do not indicate who is providing what type of support, or they include items that are not explicitly applicable to early parenting. Many existing measures also are not sensitive to modern parenting, potentially excluding important aspects such as the support of a stepparent or non-resident biological parent. The Early Parenting Support Network Questionnaire (EPSNQ) was developed then tested using a group of 341 primary caregivers of children under 2 who participated in the Growing Together: Early Parenting Experiences Study. The instrument provides information regarding support source types, with items relating to instrumental, emotional, and informational support. The potential support sources include Partner, Other Parent (a non-resident biological parent), Family, Friends, Childcare Professional, and Other. There is also a single item on a 5-point Likert scale related to Perceived Lack of Support. Statistical analysis was undertaken to assess construct and convergent validity using the existing Family Support Scale (FSS) and Depression Anxiety and Stress Scale (DASS-21). Validity and reliability were found to be adequate. Test-retest of a group of 36 participants indicated adequate reliability. The EPSNQ has utility as a validated and reliable measure of social support in early parenting with potential applications for both research and clinical purposes.

Keywords: social support, early parenting, partner support, measure development, postpartum distress, loneliness

Development and Validation of the Early Parenting Support Network Questionnaire

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Development and Validation of the Early Parenting Support Network Questionnaire: Adding more dimension to social support research

The transition to parenthood is a period fraught with unique challenges (Javadifar et al., 2016). This liminal period is thus a particularly crucial time in an individual's life, with far-reaching implications for not only the parents but for the child as well. It is important to understand which people and what services are available in a person's network and what kinds of help they provide during this vulnerable period, or more succinctly, to understand the parent's social support. Due to the ongoing effects of inadequate social support upon both parent (Morikawa et al., 2015) and child, the need for early identification of deficits and appropriate intervention is vital (Heberle et al., 2015).

Many existing measures examine sources or types of support separately, a practice which may not yield a complete picture of the interplay of support in the individual's network. Most measures do not consider the changing structures of today's families or of other cultural contexts, with wording that may exclude important information or by not having categories of support sources that may be applicable to a blended or otherwise non-traditional family. Additionally, most instruments are also more tailored for research applications rather than clinical settings. This study describes the development of a new tool that will display adequate reliability and validity for research use, as well as help to structure an objective investigation into the respondent's unique social support network to inform interventions. Researchers may also find utility in the increased insight into the interplay of support sources and types. The Early Parenting Support Network Questionnaire (EPSNQ) has been designed to meet the need for a nuanced and modern measure of social support that is specific to the circumstances of dynamic young families across a variety of cultural contexts.

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Transitioning to Parenthood

Parents often undergo a period of identity change, and the adjustments to these changes are important for the well-being of the family unit (Turner-Zwinkels, 2020). Birthing parents may experience significant body changes (Hodgkinson et al., 2014), birth injury (Gudmundsson et al., 2005), and are at risk of postpartum emotional distress. A recent meta-analysis of 96 studies found the worldwide prevalence of perinatal depression to be approximately 11.9% in mothers (Woody et al., 2017). An earlier meta-analysis found similar rates (approximately 8.4%) among fathers (Cameron et al., 2016). Moreover, some vulnerable populations may experience significantly higher rates of perinatal distress, particularly minorities (Cambell-Grossman et al., 2016), adolescents (Mollborn & Morningstar, 2009; Birkeland et al, 2005), and single mothers (Cairney et al., 2003). Parents who have had previous mental health risks are also more at risk for postpartum distress (Hetherington et al., 2018) and those who had not planned a pregnancy may experience more severe depressive symptoms as they enter parenthood (Muskens et al., 2022).

The adjustment period in early parenting is a vulnerable time for a couple, as the hopeful expectations shift into what may be a less than idyllic reality after birth. A longitudinal study of 218 couples found that during the transition to parenthood many romantic dyads experience abrupt small to medium magnitude negative changes across several relationship domains. The effects varied due to several individual factors related to the participants' circumstances and partnership, but they tended to persist throughout the 8 years of the study (Doss et al, 2009). The transition to parenthood may be one of the most significant challenges to a relationship and conflict between the parents may result (Kluwer & Johnson, 2007; Karimi et al., 2021).

The Bioecological Model

However, the parent does not exist in a vacuum, but rather as a dynamic part of an interrelated system as they grow and change along with their new baby. The seminal work of Urie Bronfenbrenner and the bioecological model (Bronfenbrenner & Ceci, 1994) conceptualizes the complex interrelated network of people, organizations, cultural aspects, and temporal considerations that shape an individual at any point in their development. The multilevel concept, ranging from the microcosm of the person's immediate environment to the cultural macrocosm, gives an effective scaffolding to investigate the effect of the interplay of these factors during different developmental phases.

The nesting model begins with the *microsystem*, the immediate environment of the person, such as a family or school. This factor consists of numerous bidirectional relationships that affect the behaviours and experiences of one another and have a lasting effect upon the development of the individual (Bronfenbrenner & Ceci, 1994). The *mesosystem* connects multiple microsystems, and represents the interactions between them., e.g. a spousal relationship and how it affects the person's work life (Cassells & Evans, 2020). The *exosystem* is comprised of elements that are not within the immediate environment, but still affect the person, such as extended family, friends, and the workplace. The *macrosystem* refers to larger systems that affect the individual, such as the cultural values, government organizations, and community resources available. The *chronosystem* runs through it all, as different aspects shift and change over the person's lifespan. An ecological perspective illuminates the external factors that affect how a person parents, beyond their own intrapersonal traits and resources, rather how they both create and are created by their environment and the people and systems within (Berk, 2004).

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Social Support

Social support can be broadly defined as "support accessible to an individual through social ties to other individuals, groups, and the larger community" (Lin et al, 1979, p. 109). The social network is the structure of the individual's ties to other people and organizations that supply assistance (Gottleib & Bergen, 2010). Social support has been found to have a positive association with improved mental (Felix & Afifi, 2015), emotional (Whiteside et al, 2010), and physical (Uchino et al, 1999) well-being. Furthermore, adequate and appropriate social support may have a buffering effect upon significant life stressors (Pocnet et al., 2016) including extraordinary circumstances such as cancer (Harper et al, 2016), natural disasters (Felix & Afifi, 2015), and bereavement (Wang et al., 2021). A recent study of patients undergoing treatment for substance use disorders found a positive association between social support and higher quality of life scores (Birkeland et al., 2021).

Social Support's Effect on the Parenting Experience

Social support has been found to be a protective factor from the beginning of the parenting journey. Its adequate provision has been associated with lower rates of postpartum depression in a recent meta-analysis of mothers in Asia and Africa (Nugrahaeni et al., 2022), thus allowing mothers to start the parenting journey as a more positive experience. As the child develops, support provided to the caregiver has been found to have a positive association with high quality parenting practices, and in turn the child's resilience in their own life journeys (Armstrong et al., 2005). Parents who do feel that they are well and appropriately supported tend to experience greater levels of parental self-efficacy (Gao et al., 2014; Shorey et al., 2021) and parenting satisfaction (Shorey et al., 2021). Social support has been found to be significantly linked to increased parental warmth in mothers with low perceived self-control

(Lippold et al., 2018) and informal support in particular seems to buffer the effects of maternal psychological distress on parenting behaviours. This mitigating factor has a carry-on effect to the child's later internalizing and externalizing behaviours, potentially indicating an area of development for interventions on the family and community level (Heberle et al., 2015).

On a more tangible level, higher levels of perceived social support have been linked with improved diets and other positive health behaviours in pregnant Mexican women making the stressful adjustment to life in the United States (Harley & Eskenazi, 2006). Conversely, mothers who experienced low social support during pregnancy tended to have lower birth weights (after excluding preterm deliveries), as well as greater depressive symptoms post-delivery and lower quality of life (Elsenbruch et al., 2007).

Social Support in the Transition to Parenthood

Social support can be categorized into different types of assistance, ranging from tangible aid to more subtle constructs relating to the recipient's emotional wellbeing. Instrumental support can include assistance with practical matters and may encompass activities like monetary support, transport, or assistance with childcare (Lin, 1986). Due to the practical nature of instrumental support, it is especially helpful in aiding the new parent with their basic human needs such as adequate sleep and time for personal care (Ko & Ma, 2022). Instrumental support to mothers was found to potentially offset the negative effects of economic pressure, leading to a noted reduction in punitive parenting practices (Leinonen et al., 2003). In the form of monetary assistance from non-resident fathers, this type of support was associated with improvements in their children's cognitive development and behaviour. It is suggested that this may be due to a positive impact upon the custodial parent's stress levels and parenting, thus indirectly affecting the child (Choi & Pyun, 2014). Another study of instrumental support, including monetary and childcare considerations, found a positive

association between a mother's perceived support and their assessment of their child's health (Turney, 2013).

Emotional support is effective when it conveys comfort, concern, and sympathy to the recipient (Cutrona, 1996). Emotional support has been identified as a vital resource during the transition to parenthood and an important element in individualized interventions (Fenwick et al., 2013). It has been found to be a potential protective factor against postpartum depression in both mothers and fathers (Escribà-Agüir & Artazcoz, 2011). A qualitative study in Iran cited emotional support, particularly from the parent's partner, family members, and health practitioners, as a valuable factor in continued breastfeeding (Saghooni et al., 2021). Another study found that a partner's high level of emotional support was associated with more positive, playful maternal parenting behaviours (Zhang et al., 2019).

Informational support is closely related to individual empowerment and agency, particularly in health and childcare, as it gives the individual the necessary information with which to make critical decisions (Molin et al., 2022). This type of support is becoming more easily accessible due to the rise of internet- based communities. A 2014 meta-analysis of 38 articles found that mothers and fathers gained valuable support that transcended time and geographical constraints via internet parent groups (Niela-Vile´ et al., 2014). Good quality, consistent informational support was also identified as an area of focus for clinicians supporting new parents in their first weeks home with an infant (Barimani & Vikström, 2015). A Canadian study found that inadequate informational and emotional support were associated with higher rates of maternal anxiety at both 4 months and 1 year postpartum (Hetherington et al., 2018).

The sources of the various types of support may be classified as formal or informal. Informal support stems from the network of a person's own friends, family, and other casual

groups, e.g. those who share a common setting such as a place of work. Formal support is generally supplied professionally and often includes interpersonal interactions from organizations. There may be overlap between the types of support, for example when a professional provides additional support beyond their "job description" (Spilbury & Korbin, 2013).

Correlates of Sources of Support during the Transition to Parenting

It has been suggested that various sources of support may perform differently to others, and of those, spousal support may take priority over other sources (Dehle et al., 2001; Zhang et al., 2019). Through the transition to parenting, the importance of the partner's "reliable and active support" (p. 472) was highlighted as a key protective factor against perinatal affective disorder in a recent Italian study of primiparous (first baby) couples in the seventh or eighth month of pregnancy (Terrone et al., 2020). A meta-analysis by Pilkington et al. (2015) encompassing 120 publications identified modifiable partner factors that were associated with perinatal depression and anxiety, with an end goal of informing future interventions. Pilkington and colleagues found that inadequate emotional closeness and global support during this time was positively associated with both depressive and anxious symptomology.

The effects of partner's emotional support during pregnancy were assessed across six longitudinal studies and found to be associated with lower levels of antenatal depression in the birthing parent. Postpartum depression was also found to have a negative association with partner emotional support in 13 studies. The meta-analysis also revealed a link between a partner's instrumental support, or tangible aid, and lower levels of depressive symptoms during both pregnancy and the postpartum period for the birthing parent (Pilkington et al., 2015).

A Swedish longitudinal study also indicated that formal social support could provide resources to aid a couple through this difficult period. This investigation found that not attending preparatory parenting programmes as a pair was associated with a greater risk of couple separation. The findings also indicated that partner support for both members of the couple was vital during the transition to parenthood to preserve the parental relationship (Leanderz et al., 2021). Perinatal educators are well positioned to aid this transition to parenthood via education and intervention, not only for the practical matters of birth and care of a newborn, but also by opening lines of communication, encouraging building support systems, and teaching parents how to be more supportive partners in a way that may not have been modelled by their own childhood caregivers (Polomeno, 2000).

Despite the importance of partner support, the assistance stemming from other kinship ties is also important. Support from extended family members predicted more positive parenting behaviours, including less use of physical discipline, an increase in parent involvement in play (Coyl et al., 2010), and improved children's function (Serrano-Villar et al., 2017). Family support may influence how well a couple functions together as parents. A study of the coparenting experiences of heterosexual, lesbian, and gay adoptive parents found that perceived social support from families of origin had a positive association with stronger coparenting alliances, regardless of their sexual orientation (Sumontha et al., 2016). Family support can help to mitigate the negative effects of being an adolescent mother. Very young mothers are a population particularly vulnerable to postpartum distress, however those adolescents that experienced higher support from their own parent figures were less likely to experience depressive symptoms (Edwards et al., 2012).

The support of the mother's own mother was identified as an invaluable resource in a 2011 study examining the relationship between first time mothers' social support, parental self-

efficacy, and postnatal depression. The researchers noted that their participants reported their own mothers as the person who most often provided all the forms of support being studied (informational, instrumental, emotional, and appraisal). This diverse maternal support was related to increased levels of parental self-efficacy (Leahy-Warren et al. 2011). Similarly, grandmother involvement during the perinatal period proved to be a rich source of informational, instrumental, and emotional support in a study of Himba women in northwest Namibia. Focus groups and semi-structured interviews revealed three main domains of assistance: learning to "mother", breastfeeding assistance, and post-natal wellbeing. They were able to pass along generational knowledge, as well as reduce workload on the postpartum mother in a practical way (Scelza & Hinde, 2019). Grandparents can be an invaluable source of support during times of family stress, even taking over caregiving duties as needed. Within the New Zealand context, indigenous Māori grandparents represented a larger portion of the group of caregiving grandparents when compared to Pacifika or European descent New Zealanders (Dolbin-MacNab & Yancura, 2018). This may be due to the traditional Māori standpoint regarding duty of care to children in the close (whānau) and extended (hapu or iwi) family (Worrall, 2009). This type of support from family members can be seen as an act of family preservation, filling a gap that otherwise may be addressed by state intervention (Connolly, 2003). Grandparents were also cited as a source of practical assistance and emotional warmth for single mothers (Widan & Greeff, 2019), potentially filling a gap left by a now absent parent.

Support Networks & Single Parenting

For those who parent without a partner, a perceived lack of social support and the experience of financial hardships were found to be more associated with mental distress (Crosier et al., 2007). Single mothers of autistic children also reported lower levels of

perceived support than coupled caregivers, potentially due to a restricted access to social support sources because of a lack of time and financial resources (Sticinski et al., 2022).

Single parents may need a diverse web of support from others to maintain high quality parenting behaviours in the absence of a partner in the household sharing daily tasks (Taraban et al., 2017). Zhou and Taylor (2022) came to a similar conclusion regarding the complex nature of social support when studying the wellbeing and parenting support of single mothers. The support from family and friends were both found to be valuable assets to the individual's parenting. However, single mothers who merely draw upon familial support were at a higher risk of depressive symptomology than those who also received help from their friends as well as family (Zhou & Taylor, 2022). The presence of friends was also cited as a valuable source of emotional, informational, practical, and appraisal support during adaptation to single parenthood (Widan & Greeff, 2019).

Quality and Perception of Social Support

The individual's assessment of the quality of support provided is also an important factor. The existence of the assistance may not really matter if the support does not actually meet the parent's true needs, or worse, they find the experience disempowering (Mohammed et al., 2021). Similarly, if the interaction with a source is stressful, the support's potential positive effects may be negated (Thoits, 2011) or may negatively affect psychological wellbeing (Rook, 1984). Perceived support, or the individual's subjective assessment of the availability of the different types of social support in their life (Ioannou et al., 2019) is also a valuable concept when discussing the interplay of social support and wellbeing.

High quality social support, across a spectrum of types and sources, forms a protective network for the parent as they transition into one of the most important and vulnerable times in their lives. The presence or lack of such assistance can shape the

experiences of this period with far reaching implications for parent and child. Unfortunately, many may feel that they face these challenges largely on their own.

Loneliness in Early Parenting

Many new parents report early parenting as a particularly lonely, isolated, and disconnected period in their lives (Paris & Dubus, 2005). Loneliness is a subjective sense of being unfulfilled by a perceived lack in the relationships in a person's life and is central to mental and physical health (Donovan & Holt-Lundstad, 2022). It can be described as an "aversive, an unpleasant and emotionally intense experience, a feeling of alienation" (p. 18, Donovan & Holt-Lundstad, 2022). Furthermore, the subjective perception of loneliness can differ from reality, leading some people who objectively have adequate social ties to nevertheless experience loneliness (Beller & Wagner, 2018). This fundamental mismatch in perception and reality has been associated with several negative physical, emotional, behavioural, and cognitive outcomes (Fridmanski et al., 2022). Lack of social support and isolation has been linked with lower satisfaction in life, as well as predicting a higher risk of depression (Tomás et al., 2019). Social isolation is a related but different construct from the subjective experience of loneliness (Tomás et al., 2019) that refers to both the quantity (the frequency of interactions) and the perceived quality of these interactions (Zavaleta et al., 2017). Adding to the complex narrative around loneliness, it is also possible to be protected from loneliness temporarily by a satisfying relationship with a significant person even if they are not currently present (Cacioppo et al., 2015). A recent meta-analysis, spanning 90 cohort studies, found that both objective social isolation and subjective loneliness were significantly associated with an increased risk of all-cause and cancer mortality (Wang et al., 2023).

The prevalence of loneliness, particularly in parents, is another matter of concern. An American report by Harvard University researchers cited the experience of loneliness as an

epidemic in and of itself, with people across all walks of life susceptible to these feelings (Weissbourd et al., 2021) The study reported that 51% of mothers of young children experienced severe loneliness compared to 35% of all responding parents, indicating increased experiences of loneliness in this particular group during their child's early years. Furthermore, 47% of the mothers of small children also reported that they had noted an increase in loneliness since the onset of the SARS Covid19 pandemic (Weissbourd et al., 2021). These feelings of lack of support and isolation can affect a person's perception of their parenting abilities.

Researchers studying parents of 18-month-old children found that loneliness and depressive symptoms were negatively associated with the participant's parenting self-efficacy (Tuominen et al, 2016). Another Finnish study found that parental social loneliness might potentially affect how often a parent accesses healthcare services for their child, possibly due to a parent's reluctance to engage in a social activity like attending a physician visit. The research conversely indicated that a mother's emotional loneliness was associated with higher rates of doctor's visits for the infant, potentially due to her perceived need for support in the form of guidance and assistance from outside sources (Schuez-Havupalo et al., 2018). Loneliness' potential effects upon parenting may warrant clinical interest and intervention.

Loneliness & Social Support

A lack of social support has been identified in the literature as a major predictor of loneliness by Zhang & Dong (2022). Their recent meta-analysis investigating the effects of different types of social support and their protective effects found that of the types of support analysed, perceived social support was associated with the greatest reduction in loneliness. Additionally, they found that a robust relationship with friends also seemed to be particularly

helpful across numerous studies (Zhang & Dong, 2022), further highlighting the need for integration into a suitable and varied social network for optimal wellbeing. However, those who are depressed may be more withdrawn and pessimistic regarding their social support status (Morikawa et al., 2015), potentially necessitating an objective inventory of a person's social assets.

Interventions

Given the importance of social support during the transition to parenting and throughout the child-rearing experience, it is of utmost concern to identify families who may be at risk due to insufficient support and to implement appropriate interventions (Corrigan et al., 2015). Interpersonal therapy (IPT) is an approach particularly suited to the perinatal period due to its grounding in relational theory, recognizing that interpersonal problems often trigger distress and further deterioration of relationships (Evans et al., 2021). It is focused on optimizing social support, improving interpersonal functioning, facilitating emotional processing, and decreasing interpersonal stress (Lipsitz & Markowitz, 2013). A 2001 randomised trial of 37 pregnant women who had been identified as having one or more risk factors for postpartum depression investigated the efficacy of 4 group therapy sessions using ITP. The brief sessions, focusing on topics such as interpersonal conflict resolution, depression, and goal setting, seemed to reduce the incidence of postpartum depression in the intervention group 3 months later (Zlotnick et al., 2001). A 2018 meta-analysis further supports the viewpoint that ITP interventions, with their focus on social support, seem to be effective both preventatively and as a treatment for postpartum distress (Sockol, 2018). A social support instrument that can be used to inform and assist this type of intervention might prove helpful to clinicians and new parents.

Development and Validation of the Early Parenting Support Network Questionnaire

Measuring Social Support in Parenting

As social support has been identified through extensive research literature as a core component of family wellbeing (Lopez & Cooper, 2011), the accurate measurement of this complex concept is an important goal for researchers and practitioners. Gottlieb & Bergen (2010) posit that social support is illuminated by examining the resources and influences that are transported through ties between the individual and support network members. The support network structure may change dramatically during early parenting (Wrzus et al., 2013), and research needs to be sensitive to these changes. It is also important to understand the cultural, environmental, and personal factors unique to an individual, as well as their perceptions of the support (Gottlieb & Bergen, 2010). This perceived support has proven to be one of the most relevant components of understanding how it affects the individual, as not every possible support will be recognized as available or adequate (Streeter & Franklin, 1992).

However, an overly broad definition of social support runs the risk of losing usefulness, as "something that measures everything ends up measuring nothing (Hutchison, 1999, p. 1521)." As such, care must be taken to examine components of social support that are relative to early parenting and the rigors of life with a young child (Hopkins & Campbell, 2008).

The intended purpose of the measure must also be considered. When a measure will be used to plan and assess interventions, the clinical utility of the instrument must be contemplated. Corcoran & Fisher (1987) list the measure's clinical relevance, brevity, and the ease of scoring and interpretation as the most helpful factors for practice.

Decades of research into social support during parenting has led to the application and modification of existing social support measures (Bellón-Saameño et al., 1996), as well as the creation of scales tailored specifically to this time frame (Dunst et al., 1984). They tend to

range from brief items that can act as screening tools to alert practitioners of a potential issue, to extensive forms yielding much more in-depth data for research. The five following scales are frequently used in a parenting context and measure aspects of support particularly relevant to early parenting.

Multidimensional Scale of Perceived Social Support (MSPSS)

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) is a brief 12 item self-reported instrument related to an individual's perception of available social support and its adequacy across 3 primary sources of support: family, friends, and significant others. The MSPSS has been used in several investigations into the role of support in different parenting situations. These include the relationship between parental social support and emotional / behavioural problems in children with autistic spectrum disorder (Lu et al., 2021), adolescents who were pregnant or had a new baby (Sieger & Renk, 2007), and the effects of social support and parenting stress on state anxiety in parents of special needs children during the Covid-19 pandemic (Ren et al., 2021). The measure does not include sources of formal support, e.g. medical services or professional childcare, a way of indicating a non-resident biological parent, or much detail about the way that the different sources of support assist the respondent.

Medical Outcomes Study Social Support Survey (MOS-SSS)

The Medical Outcomes Study Social Support Survey (MOS-SSS; Sherbourne & Stewart, 1991) is another instrument often used to assess social support in pregnancy and parenting (Campos et al., 2008; Surkan et al., 2006). Though it was initially designed for use with chronic illness populations, it investigates types of support that are applicable to the vulnerable period of early parenting. These factors include emotional/informational, tangible,

affectionate, and positive social interaction. The 19 items inquire as to the frequency of availability on a 5-point Likert scale (Sherbourne & Stewart, 1991). The MOS-SSS has been used to assess the social support provided by mothers' groups in Australia (Strange et al, 2015), perinatal depression in Latina mothers experiencing intimate partner violence (Rodriguez et al., 2010), and the effects of social support and stress in parents of children with cerebral palsy (Lima et al., 2016). Though the measure does cover a number of important types of support and their availability, it does not indicate what the sources of these supports are, nor the respondent's evaluation of how helpful the support provided is in their experience.

Duke-UNC Functional Social Support Questionnaire (Duke-UNC FSSQ)

The Duke-UNC FSSQ is self-administered, brief 8 item questionnaire initially created in a family medicine context due to the associations between social support and improved health behaviours and outcomes (Broadhead et al., 1988). The items are scored on a 5-point Likert scale reporting how often a person was able to access types of social support. Questions include items relating to how often the respondent can have visits with friends and family, receive love and affection, and chances to talk with others about problems they may be experiencing. Factors identified include confidant support and affective support, as well as 3 single items that relate to instrumental support, praise, and visits. A modified 11 item form known as the Duke-UNC-11 was found to be valid and reliable in a Spanish population (Bellón-Saameño et al., 1996). Portuguese parents were studied to verify the instrument in this population using a 13-item, 3 factor version of the instrument (Martins et al., 2022). A 15-item version was implemented to investigate the associations between parents' perceived support and their children's psychological adjustment (Nunes et al., 2021). As with the MOS-SSS, the Duke-UNC FSSQ focuses on the types of support and their availability,

excluding the sources of these support. Additionally, the propensity of researchers to frequently modify the scale has been identified by Lopez & Cooper (2011) as a hurdle when interpreting and comparing psychometrics across other studies.

The Postpartum Support Questionnaire (PSSQ)

The Postpartum Support Questionnaire (PSSQ) is a 50-item self-administered measure assessing emotional and instrumental social support types in postpartum women within their close networks. These types of assistance have been found to be particularly relevant to the postpartum period, as well as the support of one's partner (spouse), family, and friends. A 7-point Likert scale assesses the frequency of the assistance, ranging from 1 "Almost Never" to 7 "Very Often." The instrument items are applicable to the postpartum period and cover the frequency of such activities as assistance with childcare, household work, the provision of time away from the baby, monetary provision, access to an emotional confidant, and information sharing. Positive as well as negative behaviour items are included. There were 4 subscales, including partner, parent, parent-in-law, and extended family and friends support, as well as 2 items relating to general support. The questionnaire was developed with clinical intent, with a view of identification and intervention for individuals who may be experiencing low support, particularly in the domain of low partner support (Hopkins & Campbell, 2008). Though the initial instrument was devised for use with postpartum mothers, it can be modified as a prenatal expectation version with pregnant mothers by changing the verb tense of the item wording (Miller et al., 2012). The PSSQ has been used to study the predictors of postnatal depression in Chinese women in Hong Kong (Leung et al., 2005).

Though the items and concepts encompassed by the PSSQ are very relevant to the postpartum period and provide nuance on which support type renders which type of support,

the respondent burden of 50 items on a 7-point Likert might be quite intense during that stressful time. The support sources are limited to informal sources close to the respondent in their social network to the exclusion of other relevant formal sources in this period, for example midwives, lactation consultants, doulas, or well child nurses. The Likert scale begins with "Almost Never", making it difficult to flag areas of support that are not being addressed at all or to note the complete absence of a support source, such as a partner. The wording of the instrument is heteronormative, with the partner being identified with the pronoun "he" rather than a more inclusive "they." The voices of single parents or those in the LGBTQIA+ community may not be accurately represented.

Family Support Scale (FSS)

The Dunst Family Support Scale was designed specifically for studying the experiences of young families. It is a 19-item self-administered measure assessing a parent's satisfaction with the support they receive from those in their social network that is scored on a 5-point Likert scale. Potential responses range from "Not at all helpful" to "Extremely helpful" (Dunst et al., 1984). The FSS investigates formal and informal sources of support, including familial, spousal, and professional aspects. It has been used extensively to study young families across a number of settings, e.g., Puerto Rican mothers of children with disabilities (Reyes-Blanes et al., 1999), kinship caregivers (Strozier, 2012), and parents of children with cerebral palsy in Jordan (Almasri et al., 2014). While the FSS is tailored to the experiences of early parenting, it focuses primarily on sources of support to the exclusion of the types of support offered. There is no way to capture the experience of support from a former partner, nor differentiate the support received by a new partner who may be contributing as a stepparent.

Gaps in Existing Measures

Gottlieb and Bergen (2010) posit that any complete investigation into social support must document the respondent's larger social field to properly encompass all relevant sources of support. However, many commonly used measures tend to focus on a limited spectrum of potential sources. Other instruments choose to focus on investigating how a person is supported but with little to no information as to who is providing the assistance. Still others may choose to ask broad questions related to global support, which some researchers argue lends little to measuring the concept or understanding its effects (Hutchison, 1999).

This lack of nuance may allow important data to go unnoticed. In one of the classic articles examining the research of social support, Barrera (1986) posits that it important to clarify the concepts and inconsistencies of the literature on the topic by adopting more specific terminology. The inability to differentiate the sources of support, e.g., from a romantic partner or other source, and their interaction with the types of support studied was listed as a limitation in a 2018 study of parenting behaviours and their relationship with parental perceived control and social support (Lippold et al.). The study used a set of 4 questions on a Likert scale to assess the social support component. The researchers note that the measure did not assess instrumental support, co-parenting behaviours, or sources of emotional support (Lippold et al., 2018). Pilkington et al. (2015) cited similar difficulties with a lack of detail in their meta-analysis on partner support. They were concerned about potential limitations in the ability to translate the resultant data into real world prevention. They discussed a tendency for researchers to assess partner support using composite measures that yielded global support scores, or by using overly generalized items related to support (Pilkington et al., 2015). Turney (2013) similarly commented in their study of perceived social support and children's health that their results were limited in part to a lack

of information about the support sources, the respondents' satisfaction with the support, and that some types of support were not addressed (Turney, 2013).

One of the few scales that does consider both sources and types of support, the Postpartum Social Support Questionnaire (PSSQ, Hopkins & Campbell, 2008), utilizes a total of 50 items. Several items are repeated under different subheadings to differentiate the support source. Though this does allow a better understanding of who does what, it could be perceived as cumbersome to the participant and still only investigates those in the participant's close social network. The balance between necessary detail and appropriate brevity seems to be a persistent challenge for those interested in this complex topic.

Concern has also be raised for decades over the use of social support inventories that do not have rigorous validity and reliability (Heitzmann & Kaplan, 1988). Hutchison (1999) also noted the potential for surveys that contain *ad hoc* items of social support or conglomerate measures to obscure or weaken the actual relationships between variables.

On a more practical level, front line practitioners such as social workers, family care physicians, and midwives could benefit from an easy to administer and score questionnaire that helps to open conversations about social support and rapidly identify areas of deficit, yet still possesses statistical rigour. Such an instrument could be used to aid in planning before distress occurs, or to help tailor an intervention.

Development of the Early Parenting Support Network Questionnaire (EPSNQ)

The constructs to be defined were selected through review and analysis of the relevant literature with a view to Bronfenbrenner's bioecological theory (Bronfenbrenner & Ceci, 1994). Within this model, the individual is affected by an expanding network of individuals and organizations, shifting and changing as time passes and the person develops. The sources of support were loosely organized from those who may be close ties or personal microcosm.

These sources may include their partner or former partner, their family, and friends. The sources then extend to their macrocosm, those who are more remote in their network, e.g., childcare professionals, medical clinicians, or other sources of support who are more likely to be external of the household and / or less frequently accessed.

The items relate to emotional, instrumental, and informational support, which have been found to be potential protective factors against postpartum distress (Hopkins & Campbell, 2008; Heh & Fu., 2003; Pilkington et al., 2015). The inclusion of these types was deemed the most applicable to this period due to previous investigations (Hopkins & Campbell, 2008; Barimani & Vikström, 2015) and therefore more likely to accurately assess a respondent's risk of potential distress. The final item wordings were discussed and selected through consultation with researchers focused on the perinatal and infant period at the University of Waikato, many of whom were also parents. The items were chosen for their representation of the most common areas of support, clarity, and universality, as well as their relatability to the experiences of early parenthood.

"Other Parent" in addition to the "Partner" support source was included to reflect the complexities of some modern families, thus providing detail. This differentiation allows the EPSNQ to illuminate the contributions of new partners and their stepparenting, as well as the support of non-resident ex-partners. The "Other" category was added as a support source to allow the researcher or clinician the opportunity to learn from the respondent by giving them space to express a source that may have been overlooked but was nonetheless helpful to their own personal parenting experiences. Ultimately, the EPSNQ measure investigates the interplay of 6 different possible support sources (Partner, Other Parent, Family/ Whānau, Friend, Childcare Professional, and Other), across 7 items relating to common needs in early parenting relating to emotional, instrumental, and informational support. There is an

additional item to assess if the respondent perceives a lack of support in their parenting journey (Figure 2), as the subjective experience of loneliness can be a predictor of distress.

The Present Study

The purpose of this study was to evaluate the validity and reliability of the EPSNQ. The EPSNQ scores were compared to an existing validated measure of social support. A moderate positive association with the existing measure was expected, as the EPSNQ aims to consider sources of social support that had been unaccounted for in that instrument, for example a non-resident biological parent. There is also a difference in which social supports are explicitly mentioned in the FSS, e.g., “church members/pastor” or “family physician”, as opposed to broadly categorized as Other in the EPSNQ, which the respondent can choose to write in. The FSS also conglomerates Spouse & In-laws into one factor, whereas the EPSNQ simply includes the Partner, therefore some differences are expected. The EPSNQ social support scores were expected to negatively correlate with emotional distress (Nugrahaeni et al., 2022). The perceived lack of support item was also expected to have a positive association with distress (Tomás et al., 2019). To assess reliability, the EPSNQ was administered a second time two weeks after the initial survey. The end goal is the creation of a new measure to reliably capture an understanding of the intricate interplay of support from a variety of sources in domains that are relevant and practical to modern day early parenting.

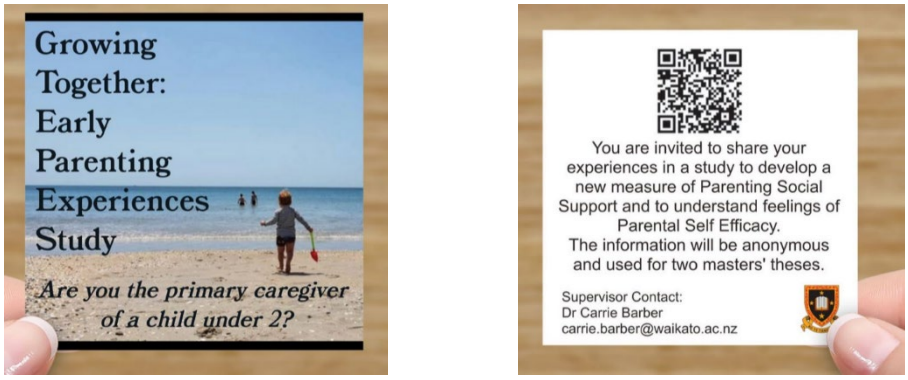
Methods

Participants

Participants were recruited via business cards with a QR code that directed them to a Qualtrics online survey. The cards were left in places that parents frequent, such as childcare centres, playgrounds, and cafes (Figure 1).

Figure 1.

Advertising images for the Early Parenting Experiences Study



Further advertising was undertaken using Facebook posts targeted to parents with young children, as well as a variety of parenting groups on Facebook and Reddit.

Permission to carry out the research was sought and obtained from the University of Waikato Human Research Ethics Committee, approval number HREC(Health)2021#66. The data collection stage began on August 28, 2021, and ceased on June 27, 2022.

The online survey began with an information page outlining the study, confidentiality, the compensation for time in the form of a chance to win a $50 gift voucher, and the process of the survey itself. To participate, the respondent was asked to verify that they were over the age of 16, were the primary caregiver of a child under 2 years of age, and that they consented

to participate in the study. An additional measure was included in the survey but was not assessed for the purposes of this thesis, as the survey data were shared between two masters' students.

There was an initial response group of 350 caregivers. A small number of respondents (3) indicated in the write in sections of the questionnaire that their circumstances had been significantly changed due to the Covid19 pandemic or other extenuating issues and were removed from the initial and follow up groups. There were an additional 6 who only answered a small percentage of questions who were also excluded, leaving a resultant initial data set of 341 participants. Upon completion of the survey, the participant had the choice to undertake the follow-up survey, receive the results of the study, and enter the gift card draw. Of the initial group, 207 (58.6%) of participants had indicated that they did want to do a follow up, 51 (14.4%) indicated that they did not, and 95 (26.9%) did not respond to this query. Follow-up surveys were sent to the 207 participants who indicated that they would like to participate. There was a follow up data set of 36 ID matched surveys, representing 10.6% of the initial group. These were matched according to unique identification numbers inputted by the participant and all survey information was kept confidential and separate from contact information.

Due to administration difficulties relating to childcare disruptions from the Covid19 quarantines, there was an unexpected delay in sending some of the follow up survey links. Because of this, the time between the completion of the initial survey and the recorded follow up survey varied from 2 to 20 weeks as opposed to the originally intended time frame of 2 weeks.

Most of the respondents identified as female (N = 318, 97.5%), 5 identified as male (1.5%), and 3 people chose to self-describe their gender (0.9%). Fifteen people (4.4%) did

not respond to this item. Participant age ranged from 17 to 47 years, with a mean ago of 31.55 (SD=4.86). LBGTQI+ representation, those reporting being of non-heterosexual persuasion, totalled at 16% (N = 52, Table 1). Most of the sample were married or in de facto relationships (Table 1).

Table 1.

Relationship Status, and Sexual Orientation of Participants

Relationship	n	%	Sexual Orientation	n	%
Single	20	6.2	Lesbian	3	0.9
Non-committed/Open	2	0.6	Asexual	2	0.6
DeFacto/Living Together	71	22.1	Bisexual	35	10.8
Married	223	69.5	Heterosexual	271	83.9
Divorced	5	1.6	Pansexual	7	2.2
			Queer	1	0.3
			Other	4	1.2

An additional demographic item on the EPSNQ instrument asked the respondent to explain their parenting situation and relationship (Figure 2, EPSNQ instrument). The majority (87.1%, n = 297) of the caregivers were in a relationship with the other biological parent of their child, 1 person (0.3%) was in a new partnership, and 24 (7.0%) people reported that they were single parents on this item. There were 15 (4.4%) people in unique situations that did not quite fit standard definitions, e.g. a father who co-habited with his ex-partner and her new partner in order to help take care of the child, as well as a woman whose husband was away at sea most of the time to the point that she considered herself a single parent. One caretaker who had taken on a child as a *matua whāngai* (traditional Māori foster parent, often a relative) also participated. Three people (0.9%) did not respond to this item.

The new measure contains a brief demographic item to assist with understanding the family structure which included a relationship component. However, because there was more than one item relating to relationship status and due to the fact that participants may answer one question at the beginning of a survey and not the second at the end, it was decided to broadly categorize a person as a single parent if they responded as single or divorced in the demographics section, and / or indicated that they were a single parent in the EPSNQ family demographic item. There were 26 (8.1%) individuals who were classified as single parents under this definition. Coupled participants included those who identified as in married, de-facto, or open relationships on the relationship item, or if it had been left blank but they had identified themselves as in a relationship with either the other biological parent or a new partner in the EPSNQ demographic item. Coupled participants comprised 91.9% (n = 296) of the total sample.

The majority of the sample was well-educated, with most of the respondents having attended university (Table 2). A total of 202 (63.9%) had attained an undergraduate or postgraduate qualification.

Table 2.

Education of Participants

Education Level	n	%
No Qualifications	5	1.6
Some High School / NCEA Level 1 or 2	13	4.1
High School Completion / NCEA Level 3	34	10.8
Certificate / Level 4	33	10.4
Diploma / Level 5	29	9.2
Undergraduate Degree	120	38
Post Graduate Degree	82	25.9

Most participants had 1 (n = 188, 59.5%) or 2 children (n = 98, 31%). Twenty-six parents (8.2%) had 3 children, and 4 people (1.2%) had 4 or more children. The age of their children was evenly distributed, with 85 (26.9%) between 0 and 6 months, 80 (25.3%) between 6 and 12 months, 70 (22.2%) between 12 and 18 months, and 81 (25.6%) between 18 and 24 months old. Table 3 refers to the ethnicities reported by the study respondents. They had the option to select more than one category on this item.

Table 3.

Ethnicity of Participants

Ethnicity	n	%
Māori	18	5.2
Pakeha/NZ European	38	11.0
Pacifika	2	0.6
Australian European	9	2.6
Asian	14	4.0
Middle Eastern	2	0.6
Latin American	10	2.9
European	39	11.3
North American	106	30.6
African	2	0.6
Other	9	2.6

Measures

Early Parenting Support Network Questionnaire (EPSNQ)

The main body of the survey consisted of the Early Parenting Support Network Questionnaire (EPSNQ) and three other measures. The EPSNQ is arranged in a grid format, with 7 items related to common types of support (including informational, emotional, and instrumental) presented in rows and the 6 potential sources of support as the columns. The grid format was selected to create a straightforward result that displayed patterns of support or a lack thereof. The respondent is asked to indicate whether the support source assists in

that way, and to indicate whether the source lives in the same household (see Figure 2). There is also an eighth item to assess a perceived lack of support (PLS) with a 5-point Likert scale. The resulting instrument is a brief, one page measure that can give a researcher or practitioner an immediate insight into the daily support structure and living situation of the respondent. Due to the wording of the items, the respondent's perception of the helpfulness of the support sources is inherently addressed (e.g., "Who can you go to for good advice or just to lend an ear?").

There is a short section at the end to help categorize the type of family structure involved, including the current relationship between the respondent and the other biological parent and whether there is a new partner involved. Single parents are specified, as well as the position of matua whāngai, a caregiver in a traditional Māori intrafamilial fostering arrangement. There is also a write in space, allowing the respondent to express their unique family / whānau situation.

The measure needs no training to administer or can be self-administered. The items work well in either paper or electronic format. There is only one Likert item to minimize the burden on the respondent. Scores are summed across the specific support type (e.g. Time Away total), the totals for the specific support sources (e.g. Partner total), and the overall total (Total Support) comprised of a sum of all the support source totals. The EPSNQ shows potential utility for clinical use as a way of structuring conversations regarding social support in the perinatal period, identifying potential gaps in support, and to tailor an individual intervention.

Figure 2.

Early Parenting Support Network Questionnaire (EPSNQ)

Please tick any that apply & add an * if they live in your household	Partner	Other Parent (if current partner is not biological parent)	Family/ whānau	Friend	Childcare Professional*	Other (Please list)*	None
Which of the following people can you go to for good advice?							
Which of the following people can you go to for moral support or just to lend an ear?							
Which of the following people do you feel comfortable leaving your baby with?							
Which of the following people would you be able to go to for a little extra money in an emergency?							
Which of the following people will help you out in case of an emergency; say if your car breaks down?							
Which of the following people will help you out if you're a little overwhelmed, like pitching in with the housework?							
Which of the following people regularly help you get a little "me time," e.g., going out with your friends for coffee without the baby?							

**Childcare professionals* may include an early childhood centre, nanny, or other people who look after your child professionally.
**Other* people or organizations may include social workers, Plunket, parenting groups, nurses or physicians, or any other group or person who assists in some way with your child.

How often do you feel like you're in this (child rearing) on your own? **(Please select one)**

☐ Never ☐ Once in a while ☐ Sometimes ☐ Often ☐ All the time

Please tell us a little more about your family / whānau

☐ I am in a partnership with my child's other biological parent.
☐ I am in a partnership with someone who is not my child's biological parent.
☐ I am a single parent.
☐ I am a matua whāngai of a family member's child.
☐ My situation does not fit these. Please tell us about it.

_____

Howell, 2023

The Family Support Scale (FSS)

Dunst and colleagues (1984) have created several support scales tailored to different aspects of social networks and other factors related to well-being. One of these, the Family Support Scale (FSS; Dunst et al., 1984), was initially designed to assess support available to families raising children with disabilities (Dunst et al, 1984; Hassall et al., 2005; Kovalcíkova et al., 2020). The FSS has become a well-accepted instrument that has been implemented in a variety of parenting studies, as well as displaying good reliability and validity when implemented in a variety of cultural settings (Hoang, 2017; Almasri et al., 2014; Pal et al., 2002). It consists of 18 self-reported items on a 5-point Likert scale according to the perceived helpfulness of the source of support. The items list individuals or services that could aid a family, and include informal (e.g., partners, family members, and friends) and formal (e.g., professional agencies and physicians) supports. Hanley et al.'s (1998) exploratory factor analysis of the scale items described a 5-factor subscale structure which accounted for 61% of the variance. The factors included 1) community, 2) spouse and in-laws, 3) friends, 4) specialized/professional, and 5) own parents and extended family. The FSS has been shown to have good internal consistency reliability (.77) and test re-test reliability (.75) (Dunst & Trivette, 1989). The 5–factor structure proposed by Hanley et al. (1998) aligns well thematically with the EPSNQ sources and its long history of research and intervention utility makes it an ideal comparison measure for the EPSNQ.

The Depression, Anxiety, and Stress Scale (DASS)

The Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995) in full 42 item or shortened versions has been extensively used as general measure of distress in

a variety of clinical populations and across numerous cultures (e.g. Sharp et al., 2016; Bibi et al., 2020; Thapa et al., 2021). A recent study exploring depression screening in Malawi, researchers found the DASS-21 to be on par with the Edinburgh Postnatal Depression Scale (EPDS) in its ability to discriminate cases versus non-cases (Moya et al., 2022). A 2019 in depth exploration of the convergent validity, discriminant validity, and construct validity of the DASS-21 using confirmatory factor analysis yielded good results (Lee, 2019). The instrument is divided into 3 subscales, which while not specific to a diagnosis, give researchers an insight into different types of emotional distress (Osman et al., 2012). The present study also used the 21-item version of the DASS as a measure of respondent distress. As per Medvedev et al. (2018), a Rasch-analysis based scoring algorithm was applied. Rasch-scoring provides greater precision in measurement and tends to reduce skewness in non-clinical samples.

Analysis

Statistical analysis for the study was undertaken using IBM SPSS 28. Normality was assessed by examining univariate skewness and kurtosis values (Gravetter et al., 2020). Most of the main variables within the EPSNQ instrument were skewed, kurtotic, or both. Due to this finding, nonparametric correlations were calculated using Spearman's rho to measure the association between the EPSNQ, FSS, and Rasch-scored DASS-21 subscales (Medvedev et al., 2018). No missing responses were recorded for the EPSNQ. Listwise deletion was applied for analysis of data that included the DASS-21 subscales. Mean substitution was used to fill in missing data when up to two items were missing (Raaijmakers, 1999) on the FSS scale.

Results

Descriptives

EPSNQ support source and type totals, perceived lack of support, and overall total means were calculated to gain an understanding of the patterns of responding as a preliminary analysis before attending to the study objectives. Partner, Family, and Friend support had the highest mean values of the EPSNQ source totals. The most frequently endorsed support type totals were Advice, Moral, and Leave Child (Table 4).

Table 4.

EPSNQ Source, Type, Total, and Perceived Lack of Support Means

EPSNQ Sources	M	SD
Partner	5.71	1.82
Other Parent*	1.05	2.09
Family	4.99	1.93
Friend	3.35	2.00
Childcare Professional	1.60	1.94
Other	0.74	1.66
EPSNQ Types	**M**	**SD**
Advice	3.45	1.36
Moral Support	3.09	1.30
Leave Child	2.62	1.39
Money	2.12	1.36
Emergency	2.48	1.30
Housework	1.96	1.43
Time Away	1.70	1.53
EPSNQ Total Score	**M**	**SD**
Total	17.44	8.03
Perceived Lack of Support	**M**	**SD**
PLS	3.03	1.28

N = 341

*Other parent refers to a biological other parent with whom the participant is not in a currently coupled relationship.

The mean response for Perceived Lack of Support was 3.03 (SD = 1.278). The distribution of responses on the item was evenly distributed across the categories. and indicated that most of the respondents reported feeling alone in parenting at least 'Sometimes' (see Table 5).

Table 5.

Perceived Lack of Support Frequencies and Percentages

	Never	Once in a While	Sometimes	Often	All the Time
n	48	78	82	82	51
%	14.1	22.9	24.0	24.0	15.0

Figure 4 depicts EPSNQ support source totals and Total Support means according to single or coupled relationship status.

Figure 4.

EPSNQ Support Source & Total Means by Coupled (n = 296) or Single (n = 26) Relationship Status

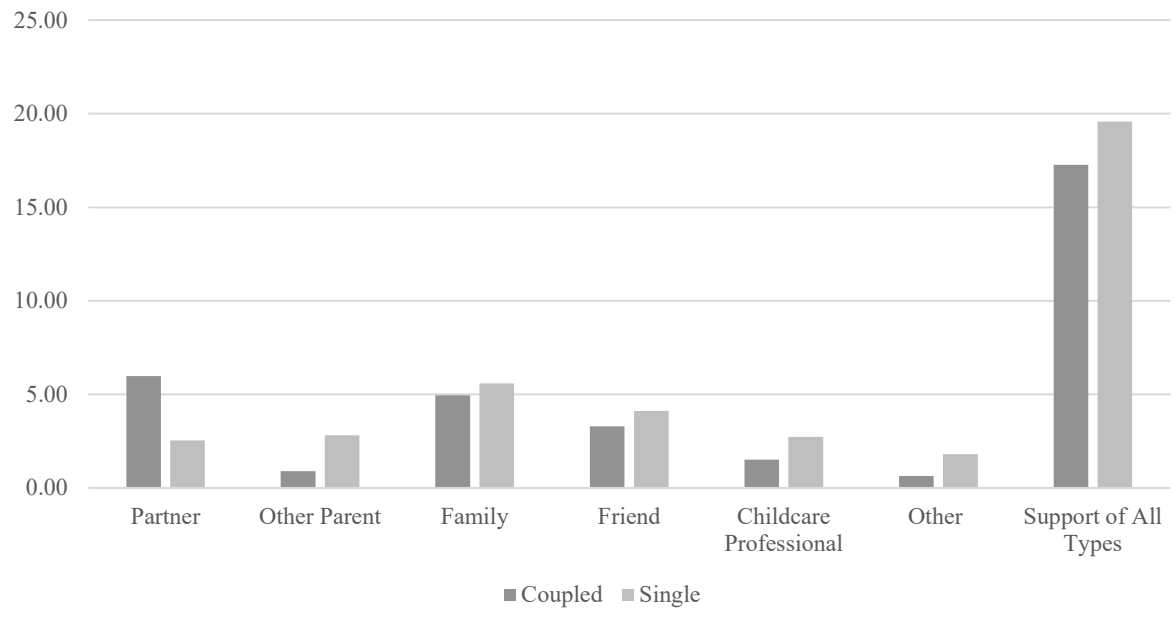


Figure 5 displays EPSNQ support type means according to their single or coupled relationship status.

Figure 5.

EPSNQ Support Type Means by Coupled (n = 296) or Single (n =26) Relationship Status

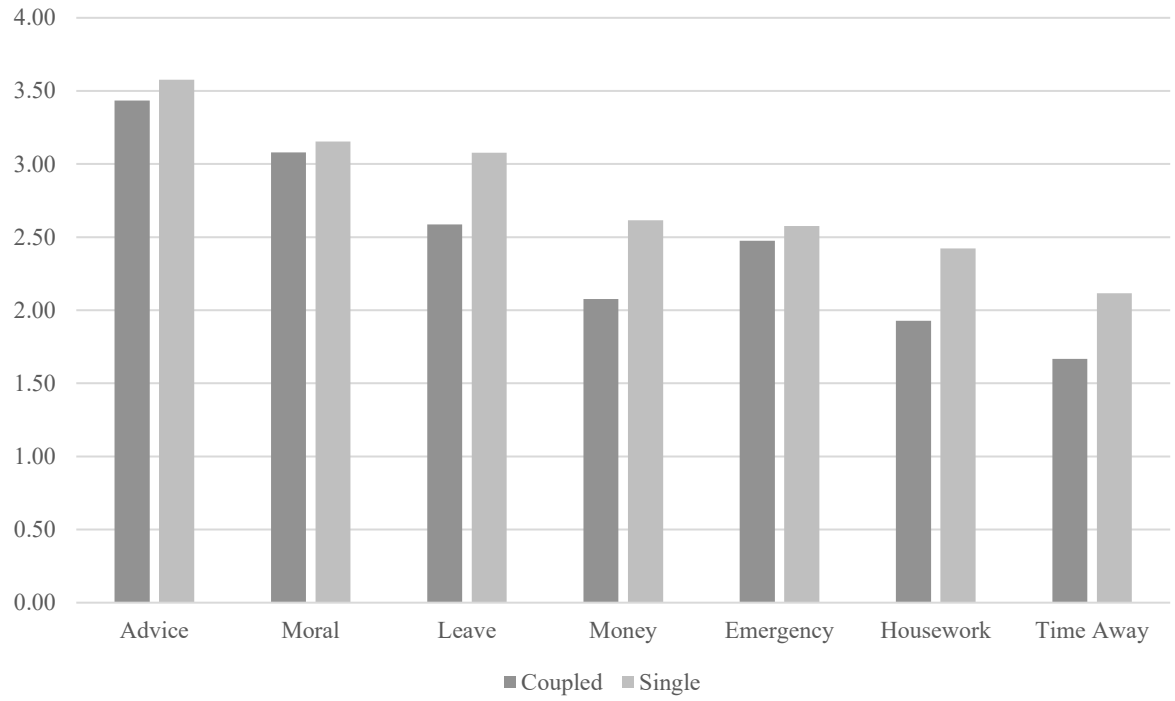


Table 6 exhibits means and standard deviations of the FSS factor and total means. The highest support source factor means were Spouse & In-laws, Professional, and Friends.

Table 6.

Family Support Scale (FSS) Using Hanley's 5 Factors (1998) and Total Means

	M	SD	n
Community	2.66	2.83	330
Spouse and In-laws	6.58	3.12	334
Friends	4.40	3.10	333
Professional	6.31	4.47	326
Family	3.91	2.61	334
Total	23.95	10.31	327

Table 7 refers to the Rasch-scored DASS-21 subscale means. As is typical in normative samples, the Stress subscale showed the highest levels.

Table 7.

Depression, Anxiety, and Stress Scale (DASS-21) Rasch-Scored Subscale Means

	M	SD	n
Depression	5.68	3.93	315
Anxiety	6.68	3.34	333
Stress	9.25	3.15	334

Convergent Validity

Table 8 displays the correlations between the FSS factor and total scores with the EPSNQ source total, overall total, and PLS scores. With the exception of 'Other Parent' and 'Other', moderate to high correlations were found between the EPSNQ source totals and FSS factor totals. Correlations between the parallel measures are bolded in the table.

Table 8.

Correlations between Family Support Scale (FSS) 5 Factor and Total Scores and EPSNQ Source, Total, & PLS Scores using Spearman's rho

	FSS Factors					
	Community	Spouse & In-laws	Friends	Professional	Family	Total
EPSNQ Source						
Partner						
Correlation Coefficient	.150	**.363**	.139	-.016	.056	.192
Sig. (2-tailed)	.007	**<.001**	.012	.778	.316	<.001
Other Parent*						
Correlation Coefficient	.098	-.036	.084	.148	.008	.112
Sig. (2-tailed)	.078	.513	.130	.008	.881	.045
Family						
Correlation Coefficient	.118	.197	.258	.173	**.528**	.382
Sig. (2-tailed)	.034	<.001	<.001	.002	**<.001**	<.001
Friends						
Correlation Coefficient	.125	.119	**.397**	.123	.081	.245
Sig. (2-tailed)	.024	.032	**<.001**	.027	.148	<.001
Childcare Professional						
Correlation Coefficient	.186	.033	.197	**.454**	.122	.339
Sig. (2-tailed)	.001	.0557	<.001	**<.001**	.029	<.001
Other						
Correlation Coefficient	.068	-.80	.042	.056	-.054	.019
Sig. (2-tailed)	.223	.148	.452	.318	.329	.732
EPSNQ Total						
Total Score						
Correlation Coefficient	.213	.292	.394	.256	.303	**.445**
Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	**<.001**
Perceived Lack of Support						
PLS						
Correlation Coefficient	-.116	-.446	-.194	-.037	-.168	-.276
Sig. (2-tailed)	.037	<.001	<.001	.506	.002	<.001

N = 325

*Other parent refers to a biological other parent with whom the participant is not in a currently coupled relationship.

Table 9 exhibits the correlations between the Rasch-scored DASS-21subscales and EPSNQ source, overall, and PLS total. Small to moderate correlations were found between

most EPSNQ sources and total scores in the expected direction. The highest association was between the DASS-21 subscales and EPSNQ perceived lack of support item.

Table 9.

Correlations between Rasch-scored DASS-21 Subscales and EPSNQ Source, Total, & PLS Scores Using Spearman's rho

	DASS-21 Subscales		
	Depression	Anxiety	Stress
EPSNQ Source			
Partner			
Correlation Coefficient	-.249	-.166	-.161
Sig. (2-tailed)	<.001	.002	.003
Other Parent*			
Correlation Coefficient	.077	.120	.094
Sig. (2-tailed)	.171	.028	.087
Family			
Correlation Coefficient	-.070	.021	-.087
Sig. (2-tailed)	.218	.707	.111
Friends			
Correlation Coefficient	-.123	-.130	-.069
Sig. (2-tailed)	.029	.018	.205
Childcare Professional			
Correlation Coefficient	-.076	.017	.004
Sig. (2-tailed)	.177	.756	.939
Other			
Correlation Coefficient	.054	.079	.082
Sig. (2-tailed)	.343	.149	.136
EPSNQ Total			
Total Score			
Correlation Coefficient	-.192	-.111	-.114
Sig. (2-tailed)	.001	.042	.037
Perceived Lack of Support			
PLS			
Correlation Coefficient	.381	.324	.331
Sig. (2-tailed)	<.001	<.001	<.001
	N = 315	N = 333	N = 334

*Other parent refers to a biological other parent with whom the participant is not in a currently coupled relationship.

Figure 6 explores the PLS means according to single or coupled relationship status. Single parents tended to report feeling that they were parenting alone "All the time" considerably more frequently than coupled respondents.

Figure 6.

Perceived Lack of Support Percentages by Coupled (n = 296) or Single (n = 26) Relationship Status

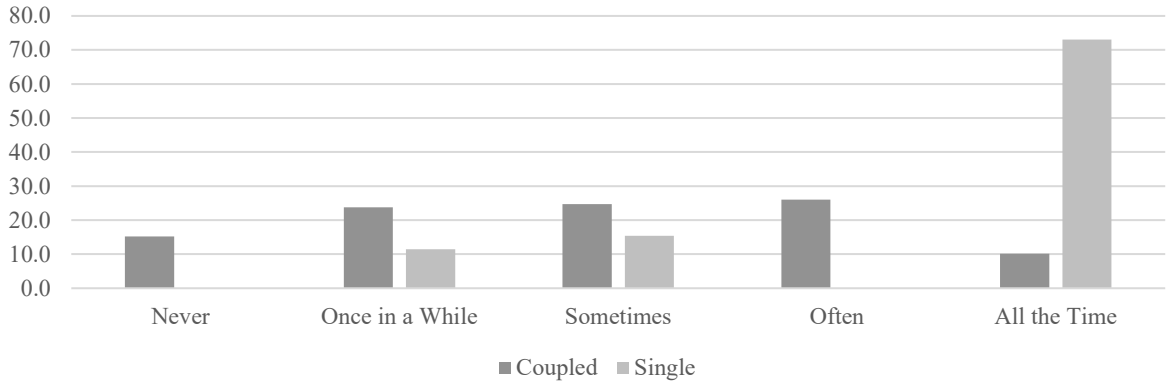
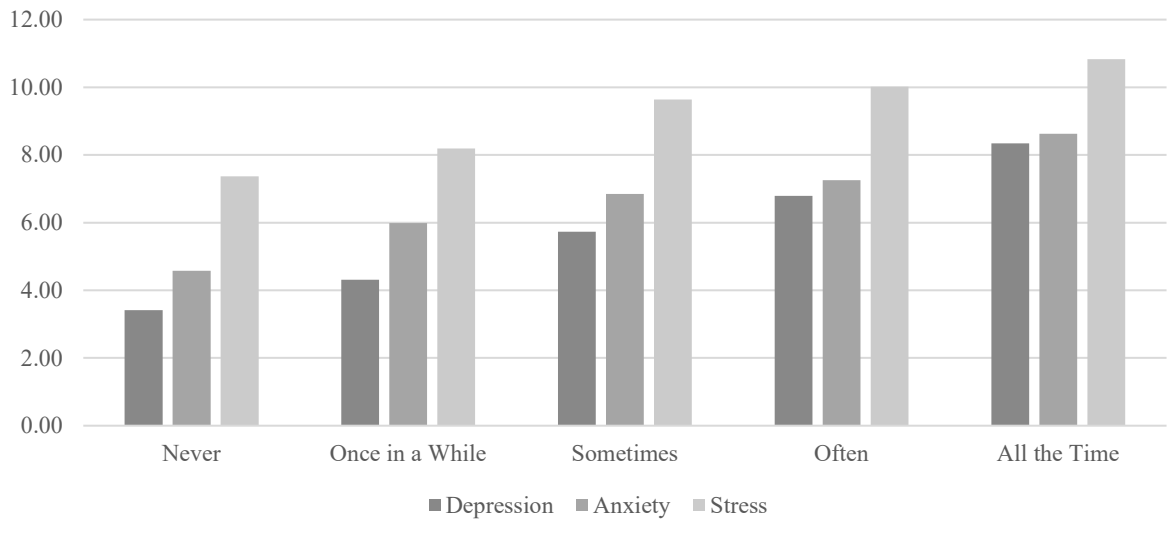


Figure 7 offers a visual chart of the relationship between PLS scores and DASS-21 subscale totals. The figure depicts a positive correlation between a lack of perceived support and all three subscales of the DASS-21.

Figure 7.

DASS-21 Subscale Means by Perceived Lack of Support Response



Exploratory Analysis of Perceived Lack of Support Responses in Single and Partnered Participants

Participants in partnered relationships tended to report feeling like they were parenting on their own less frequently (mean = 2.92, SD = 1.230, N = 315) than those who were single (mean = 4.35, SD = 1.129, N = 26). The Mann-Whitney U-test revealed that single individuals perceived higher levels of lack of support than those in a partnered relationship (Mann-Whitney U = 1604.50, Z = -5.28, $p < .001$).

Reliability

Table 10 refers to the temporal stability analysis test-retest scores. With the exception of Partner support, most source type totals exhibited moderate to high correlations. It is of note that the latency between initial and follow up tests varied between 2 and 20 weeks.

Table 10.

Test Retest of EPSNQ Source, Total, & PLS Scores using Spearman's rho

	Test/Retest
Partner	
Correlation Coefficient	.346
Sig. (2-tailed)	.039
N	36
Other Parent*	
Correlation Coefficient	.553
Sig. (2-tailed)	<.001
N	36
Family	
Correlation Coefficient	.812
Sig. (2-tailed)	<.001
N	36
Friends	
Correlation Coefficient	.589
Sig. (2-tailed)	<.001
N	36
Childcare Professional	
Correlation Coefficient	.579
Sig. (2-tailed)	<.001
N	36
Other	
Correlation Coefficient	.515
Sig. (2-tailed)	.001
N	36
Total Score	
Correlation Coefficient	.742
Sig. (2-tailed)	<.001
N	36
PLS	
Correlation Coefficient	.761
Sig. (2-tailed)	<.001
N	33

*Other parent refers to a biological other parent with whom the participant is not in a currently coupled relationship.

Exploratory Analysis of Types of Support and the DASS-21 Subscales

Table 11 depicts correlations between the perceived lack of support item in EPSNQ measure with EPSNQ support types. 5 of the 7 types exhibited statistically significant low negative correlations with the perception of lack of support item.

Table 11.

Correlations between Perceived Lack of Support and EPSNQ Support Type Using Spearman's rho

	Advice	Moral Support	Leave	Money	Emergency	Housework	Time Away
PLS							
Correlation Coefficient	-.097	-.117	-.160	-.082	-.138	-.157	-.203
Sig. (2-tailed)	.073	.031	.003	.131	.011	.004	<.001
N = 341							

Further exploratory analysis of EPSNQ support types and the DASS-21 subscales can be found on Table 12.

Table 12.

Correlations between DASS-21 Subscales and EPSNQ Type Scores Using Spearman's rho

	DASS-21 Subscales		
	Depression	Anxiety	Stress
EPSNQ Type			
Advice			
Correlation Coefficient	-.097	-.020	-.005
Sig. (2-tailed)	.087	.721	.922
Moral			
Correlation Coefficient	-.177	-.085	-.076
Sig. (2-tailed)	.002	.120	.168
Leave Child			
Correlation Coefficient	-.104	-.097	-.076
Sig. (2-tailed)	.065	.078	.165
Money			
Correlation Coefficient	-.173	-.144	-.123
Sig. (2-tailed)	.002	.008	.025
Emergency			
Correlation Coefficient	-.083	-.101	-.063
Sig. (2-tailed)	.142	.066	.251
Housework			
Correlation Coefficient	-.109	-.007	-.071
Sig. (2-tailed)	.052	.892	.194
Time Away			
Correlation Coefficient	-.056	-.010	-.020
Sig. (2-tailed)	.318	.860	.717
	n = 315	n = 333	n = 334

Exploratory Analysis of Associations between PLS and DASS-21 Subscales with a Focus on Low Partner Support

To contextualize the link between perceived lack of support and distress, individuals within the sample with low partner support were grouped. Correlations between the PLS item and the DASS-21 subscales were calculated separately for this group and the rest of the sample to descriptively assess whether the associations between lack of support and distress would differ in individuals who are experiencing low partner support. Those with partner support in the lowest quartile (a score of 4 or under) displayed similar correlations between PLS and anxiety and stress subscales, however there was a large positive association between PLS and the depression subscale when partner support was low as opposed to a small correlation within the rest of the sample (Table 13).

Table 13.

Correlations of Perceived Lack of Support & DASS-21 Subscales in Coupled Respondents with Low Partner Support using Spearman's rho

	Partner Support in Lowest Quartile PLS	Partner Support in Upper Quartiles PLS
Depression		
Correlation Coefficient	.559	.248
Sig. (2-tailed)	<.001	<.001
n	73	220
Anxiety		
Correlation Coefficient	.311	.283
Sig. (2-tailed)	.006	<.001
n	78	231
Stress		
Correlation Coefficient	.307	.282
Sig. (2-tailed)	.006	<.001
n	78	232

Discussion

The present study sought to design and analyse the psychometric features (convergent validity and reliability) of a novel support scale within caregivers of young children. The goal was to address a gap identified in the literature on social support assessment with a measure that is empirically validated and reliable. The measure aims to identify support in a multidimensional fashion by considering multiple sources and types of support simultaneously, with a focus on creating a tool that will elucidate the experiences of those who might have otherwise been missed.

EPSNQ Sources and Types

The most accessed sources of support reported by participants were Partner, Family, and Friends. This close network assistance is consistent with findings of other studies during the perinatal and early childhood period indicating the importance of informal support provided by those individuals close to the parent during the transition to parenthood (Hopkins & Campbell, 2008; Leahy-Warren et al., 2011). It has been found that closer relationships with the support source tend to increase the types of help provided by that source, thus leading some sources to be more prolific with the resources that they supply the individual than others (Gottlieb & Bergen, 2010). Partners tend to be a common exemplar of this phenomena, with many respondents in the present study reporting that their partners provided all 7 types of assistance listed on the EPSNQ.

The EPSNQ support source totals indicate a greater use of informal assistance sources, which tend to be made up of closer network members. This finding lends further credence to Gottlieb & Bergen's (2010) commentary on the importance of the support from

friends and family. Financial constraints might be another potential reason for this trend in the results. Many parents may not have the monetary resources necessary for formal help and choose to instead tap their close network for help, e.g., having a grandparent watch the child rather than pay formal childcare.

Advice (informational), Moral (emotional) support, and someone to Leave your baby with (instrumental) were the top 3 reported types of support. The other 4 item categories (Money, Emergency, Housework, and Time Away) also represent instrumental support, though they encapsulate different ways that tangible support can be expressed to the parent of a young child. Time Away, or a person willing to take the child to allow leisure time for the parent, was the least endorsed type of support. However, recreational free time away from a baby has been identified as the most beneficial as a stress reliever in a qualitative study of the adjustment of mothers in South Africa to life as a single parent (Widan & Greef, 2019). The greater provision of Advice and Moral support compared to instrumental support could be due to the relative ease of providing that type of assistance, both from informal and formal sources. Instrumental support, the act of tangibly helping the parent with their child and their lives, takes much more effort and sacrifice of resources, be they personal or governmental. Additionally, most instrumental assistance offered is on a necessity level, e.g. help if there is an emergency, rather than overall wellbeing and comfort, for example time away to do a fitness class without the baby or help tidying a messy house.

Validity

The EPSNQ subscales and total scores displayed satisfactory construct and convergent validity when compared to the often tested and well accepted Family Support Scale (Dunst et al., 1984; Dunst et al., 1994) total scores, as well as having correlation with 4

factors of Hanley et al.'s (1998) proposed 5 factor model. There was also a difference in the way that the items are assigned to the different domains, e.g. the EPSNQ explicitly states Partner discretely, whereas the FSS Spouse & In-laws factor includes the items for the partner's parents and their other relatives. A respondent would likely place these sources under the Family section of the EPSNQ measure.

The FSS factor that did not correlate with any EPSNQ support source, Community, comprised of items such as parent and social groups, which were the most often written in comments on the EPSNQ Other. Healthcare professionals were also a commonly added Other source of support in the EPSNQ Advice and Moral support items. The write in options were rarely used overall, and those write ins referred largely to professional supports that were not specifically childcare, such as midwives, general practitioners, Whānau Āwhina Plunket (well-child) nurses. The FSS factor Professional was the second highest mean and the items comprising this factor correspond to either Childcare Professional and Other support sources on the EPSNQ. However, both Childcare Professional and Other total means were relatively low on the EPSNQ results. It could be proposed that having the professional individuals and agencies itemized in the FSS encouraged the respondent to include their helpfulness, whereas they may have just skipped over writing them in on the EPSNQ Other category. Other write in additions included the SPACE program (Woods, 2019), playcentre (a parent run early childhood organization), and online parent support groups. This voluntary addition of informal online parent groups is in line with Niela-Vile´ et al.'s (2014) meta-analysis of the advent and types of support provided by internet social networking. The relative lack of use of the write in areas may be indicative that many of the major sources of relevant support are being addressed.

The support source Other Parent, referring to another biological parent who is not in a coupled relationship with the respondent, also did not correlate with the FSS factors or single items, as was expected. This is a relatively novel item to include on a parental social support measure, though non-resident parental involvement has been an area of study for some years (Choi & Pyun, 2014; Tach et al., 2010; Kim & Meyer, 2014). In the case of this study, the sample size of those who reported another biological parent's involvement was small due to the largely coupled and single child family structure of the respondents. An inability to differentiate between Other Parent not being applicable as opposed to being applicable but not helping is a current shortcoming of the existing measure and its comparison with the FSS. However, it is felt that this support source is an area for future development and its inclusion is important.

Another notable consideration when comparing the correlations between the FSS and EPSNQ measures is that of subjectivity. By parsing out the ways that different support sources assist the participant objectively item by item, the EPSNQ may help the person to assess more accurately who is there for them in their daily lives. Many of the existing social support instruments focus on the presence of and / or perceived helpfulness of a variety of support sources, e.g. the FSS, but the respondent may rate them more subjectively without a delineated list of types of support. Additionally, the wording of the EPSNQ (e.g. "Which of the following people can you go to for good advice?") encourages the participant to not record a response in cases where the support is poor or unreliable. This approach is designed to help indicate which support sources are actively assisting the caregiver, rather than merely being an inventory of what could potentially be available in a perfect world.

The EPSNQ Partner support total was weakly but significantly negatively associated with the depression, anxiety, and stress subscales of the DASS-21 instrument. This finding is

in agreement with the existing literature on the potentially protective effects of adequate partner support during this pivotal time (Jonsdottir et al., 2017).

Other Parent, or a non-resident biological parent that the participant is not in a relationship with, had a weak positive correlation with anxiety. Widan & Greeff (2019) noted the mixed relationship between women and their ex-partners, partially due to interpersonal conflict and intermittent or non-existent instrumental support. The participants' responses in the 2019 study indicated that the other biological parent could act both as a help and as a barrier to adaptation to their new lives as single mothers. This complex relationship may be mirrored in the present study.

The EPSNQ source of Friends also showed weak negative associations with the DASS-21 depression and anxiety subscales. This finding agrees with studies citing the importance of the support of friends for wellbeing (Almeida et al., 2011; Widan & Greeff, 2019). It is interesting that Family did not show a similar association with distress; however as most of the respondents reported good levels of partner support, it may be less important to this group of participants. Similarly, a study of family support and perinatal distress found that the support of the partner of the birthing parent was the most important risk factor for postpartum distress over other family members (Xie et al., 2010).

The EPSNQ Total Support and Partner scores correlated weakly but significantly with all three of the DASS-21 subscales, as well EPSNQ Friends with the depression and anxiety subscales. These findings agree with the research of Elsenbruch et al. (2007) which linked increased social support with a decreased risk of postpartum distress. Surkan et al. (2006) also found a statistically significant inverse relationship between social support supplied to a mother and postpartum depressive symptomology. The lower than expected correlation could potentially due to the relatively objective approach of the EPSNQ (items directly querying

who supplies what type of help explicitly). This approach is in comparison to more subjective measures based around assessments of level of perceived support from a source, such as the FSS, which may lead to a more emotional rating.

The more subjective Perceived Lack of Support (PLS) item of the EPSNQ does correlate more strongly, to a moderate and significant level, with the DASS-21 subscales of depression, anxiety, and stress. This sense of isolation is an important area of concern as long term loneliness can be a predictor of depression (Heinrich & Gullone, 2006), as well as a multitude of serious health concerns (Wang et al., 2023). This is also relevant to the findings of Weissbourd et al. (2021), indicating that mothers of young children were at particular risk of severe loneliness. Another 2021 study also reiterated that during trying times such as the Covid-19 pandemic that was experienced during the data collection period, loneliness is an important issue that must be addressed to potentially reduce parental distress (Mikocka-Walus et al., 2021). Furthermore, it possible that the respondents' distress was leading to social withdrawal and a more pessimistic assessment of their social support network availability (Morikawa et al., 2015). There was also a moderate negative association between Total Support and the Perceived Lack of Support item, indicating that the presence of appropriate and adequate support may be a potential protective aspect against perceived parental loneliness.

As for the reliability analysis, the test-retest correlation for the Total Support scores were strong, indicating acceptable reliability of the EPSNQ instrument. This correlation was despite an inconsistency in the latency between the initial and follow up questionnaires, with some respondents returning their follow up measures up to 20 weeks later. It is not clear why the test-retest reliability on Partner support score was surprisingly low, and further evaluation with a larger sample will be needed. However, overall temporal stability of the EPSNQ

would appear to be good, though it would be interesting to administer the measure in different time intervals in future work to test that supposition.

Exploratory Analyses

Exploratory analysis of the partner support of coupled participants, when split into quartiles, lent some intriguing differences in correlation. Coupled respondents who were experiencing low partner support displayed a substantially higher correlation between the PLS item and the DASS-21 depression subscale when compared to those who had higher partner support. This tentative finding agrees with a study by Dennis & Ross (2006) examining the relationship between partner's postpartum specific support and depressive symptoms. They found that adequate partner support was negatively associated with postpartum distress at 8 weeks after birth. As for the increased PLS and depression subscale correlation, it is possible that a lack of active partner support led to a keener sense of isolation and resultant depressive symptomology when compared to those who could objectively say that their partner was helpful.

It is also interesting that despite generally high Partner support total scores, respondents (on average) still reported that they "Sometimes" felt that they were alone in parenting (mean value of 3.03, equivalent to the "Sometimes" verbal anchoring of the Likert scale). This is in alignment with previous work investigating loneliness in parents of young children, who often report their baby's early years as being particularly lonely and isolated periods in their own lives (Paris & Dubus, 2005), particularly for mothers of young children (Weissbourd et al., 2021). Though the sample size was small (n = 26), single parents reported feeling more alone on the Perceived Lack of Support item, though their mean Total Support

score was also a bit higher (see Figures 4 & 6). It could be surmised that despite the objective presence of support, potentially being the only parent in the household to a child or children could lead a person to feel isolated. Further investigation into the interplay of the EPSNQ Total Support and PLS item could provide further insight into the relationship of the constructs.

Single parents reported greater uptake of formal support sources (Figure 4), such as Childcare Professionals and support agencies listed under the Other category. The Other Parent category, as expected, is more commonly reported among single parents, though some coupled respondents also noted the presence of a biological parent who is not their current partner. Overall, single parents seemed to redistribute their support sources across several categories, potentially to offset a lack of partner support.

Strengths of the EPSNQ

The Early Parenting Support Network Questionnaire, in its inception, has provided a nuanced insight into the lives of the responding caregivers. By being able to explore in detail the types of support offered by 6 potential sources of support simultaneously, the patterns of support surrounding the respondent come into clear focus. Despite the extra detail, the instrument remains brief as the layout of the measure simplifies the data collecting process and reduces repetition. The clear and concise wording of the items do not necessitate a high reading level, improving its accessibility. The terms used are gender neutral, allowing those from non-heteronormative, single parent, and other non-conforming families to be heard, and hopefully feel more comfortable during the process.

The potential flexible utility of the EPSNQ is another strength of the measure. While useful in a research capacity, it could also be implemented on an individual level to help a practitioner, who would require no special training, to identify gaps in the respondent's support network and tailor a response. When administered in paper form, the responses form visible patterns that can identify areas of concern at a glance.

The EPSNQ has been shown in this study to effectively measure social support and has an item positively associated with distress. As such, the measure has potential clinical utility. The EPSNQ could be used to help preventatively (e.g. by a midwife), to track progress (e.g. by an interpersonal therapist mid treatment course), or to assess the efficacy of an intervention. Potential "red flags" to note may include lower quartile partner support (a partner support score under 4) and a low total support score. A high Perceived Lack of Support (PLS) score, given its positive association with the distress, may also indicate that the caregiver is feeling lonely and may be experiencing distress. The Total Support score may also find utility as a method of assessing social network size, as social isolation is another important consideration for overall wellbeing (Wang et al., 2023). It might also be worth exploring the instances where a person has responded with a relatively high level of support on the main body of the measure, yet also still scores on the upper end of loneliness. This might be an interplay of clinical interest, indicating a potential disconnect between the patient's perception of and the actual availability of assistance.

Limitations of the Study

The sample was predominantly of European descent, well educated, and in a coupled relationship. They had the time and interest to invest in the research survey, and they had the

resources to access the internet to do so. Due to this tendency, the sample sizes on some of the other populations were fairly small, e.g. the 26 participants who were identified as single parents, the 5 fathers, and one matua whāngai.

There was a potential ceiling effect on the Partner support total score, with the majority of the coupled respondents reporting that their partner could be depended upon to provide most if not all of the types of support delineated. The ceiling effect could potentially suppress any differences that might have been in the sample. A larger sample size would help to capture variations with sufficient statistical power.

There were also potential wording issues on some of the items, particularly the term "Partner." There were cases where the respondent listed themselves as single, yet also mentioned the presence of a partner. It is possible that this relates to the presence of a more casual or non-resident relationship, and as such they still list themselves as single. Though it is an interesting variation on the original idea, clarity on the functional definition of partner may need to be addressed in future variations of the EPSNQ.

Similarly, Other Parent, despite the definition of "if current partner is not biological parent" appearing underneath the column heading, may have confused some people. It is also possible that respondents were indicating that they were receiving assistance from former partners who were the biological parents of their older children, which would not have been covered in the existing EPSNQ family demographic items. Responses regarding the Other Parent support source were treated as part of the overall support assessment, yet in hindsight it may have contributed to a decrease in precision for this source. Future studies employing the EPSNQ are encouraged to treat this support source as a qualitative source of information jointly with the proposed demographic items rather than integrating this source quantitatively within a total score. The next incarnation of the EPSNQ would dedicate more space to

explaining the distinction between current Partner and potential Other Parent, as well as create an option in the family demographic section to specifically indicate when there was the support of a non-resident biological parent (e.g., "I get some help from a former partner who is a biological parent of one or more of my children"). This would help to differentiate between a lack of response meaning no support from that source as opposed to Other Parent not being applicable when scoring.

Additionally, the moral support item will need to be reworded, as it is essentially emotional support that it encapsulates. It also contains vernacular that may not translate well in different cultural contexts. It is currently, "Who can you go to for moral support or just to lend an ear?" Future wording of that item would be, "Who can you go to for emotional support or just to listen?"

It should be noted that although the Perceived Lack of Support item does query the respondent on how often they feel as though they are alone in parenting, it is not validated against an existing measure of loneliness. Future work into this item should compare it to an already valid and reliable loneliness instrument. The recent meta-analysis by Wang et al. (2023) has brought into stark light the widespread consequences of loneliness and isolation. Given the additional vulnerability of new parents (Weissbourd et al., 2021), having a validated item screening for loneliness could be valuable.

There was an ambiguity with the ethnicity demographic items, as well as the use of multiple response categories indicated by several participants. This obfuscation of ethnicity and nationality made analysis using this variable difficult. Future research using the EPSNQ would benefit from a clearer set of items for the ethnicity demographic question.

Due to serious childcare issues arising from the Covid-19 pandemic, the test-retest period was inconsistent, potentially resulting in lower correlation and a poorer response rate. It would be ideal to undertake further testing into the reliability of the EPSNQ instrument using a consistent time frame.

Future Directions

The vast majority of the respondents were coupled mothers, which was a limiting factor in validating the scale for use with other populations, such as single parents, fathers or non-parent caregivers. Future research could choose to target fathers or other caregiving situations to better understand their experiences. A deeper understanding of their social support networks while they care for a young child could add to the knowledge around how to support these populations most effectively.

Tentative exploratory analyses yielded some interesting results in the small single parent group. For example, single parents reported feeling more alone on the Perceived Lack of Support item, despite their mean Total Support score being slightly higher than coupled participants (see Figures 4 & 6). Single parents seemed to diversify their social support network while coupled parents tended to rely primarily on each other (Figure 4). A larger sample size of the general population of parents or a study focusing exclusively on single parents may potentially garner more information on this demographic and add validity to the EPSNQ measure's use in that group.

The Covid-19 pandemic brought to light the importance of easy accessibility to social support despite extenuating circumstances, such as quarantine. The preliminary version of the EPSNQ has an option to designate which of these support sources live in the same

household. The wording should be changed to improve the understanding of internet based, as well as in-home visit style, formal and informal support. Rather than asking the participant to indicate the sources that "live in your household," they should be requested to indicate when the support is "available from your home."

The invaluable information garnered from the write-in Other support source section (e.g. the support providers Whānau Āwhina Plunket, general practitioners, and midwives) suggests that the category of "Professional Help" should be considered as an addition to the existing gamut of support sources.

Future exploratory analysis could be undertaken to further understand the factors underlying the support types assessed with the EPSNQ. It could be claimed that 5 of the 7 items (Leave Child, Money, Emergency, Housework, and Time Away) relate to instrumental support. The remaining 2 items, Advice and Moral support, correspond to informational and emotional support. As informational and emotional support are central to understanding and coping with the postpartum period and a growing child, further analyses of these items is ideal. Analysis to ascertain the internal consistency the EPSNQ should also be undertaken.

Limited exploratory analysis in this study examining specific types of support yielded some interesting data separate from the main purpose of this study, which was centered primarily around creation and validation of the new scale. As validation was established using the FSS instrument, which focuses on support sources, support type data cannot be assessed at this time. Further examination into the effects of different types of support and a comparison with the existing literature could produce greater understanding in what types of assistance best help new parents.

Furthermore, a longitudinal study using the EPSNQ form could lend valuable information on how the types and sources of social support ebb and flow throughout the development of the parent and child during the early parenting years. It could be administered throughout the pregnancy and at different time points during the first two years. Langford et al. (1997) touched upon importance of longitudinal studies as a method of understanding the changes of social support across time in their conceptual analysis of the subject. Gottlieb & Bergen (2010) also noted the potentially shifting nature of social support, contingent upon individual, cultural, and environmental factors. Longitudinal inquiry would illuminate their interplay over time.

To add statistical precision to future research, a long form of the EPSNQ could be developed. While keeping the overall structure, a respondent could use a 5-point Likert scale to assess not only the presence but also the helpfulness of a support source on a continuum. With minimal inconvenience, a researcher or clinician could choose which of the two administration and scoring procedures to implement given the circumstances of their research or intervention.

Conclusion

The Early Parenting Support Network Questionnaire (EPSNQ) was developed as a tool to assess social support sources and the types of assistance that they offer during early parenting. The items were selected as particularly relevant to life with a new baby, focusing primarily on instrumental, as well as emotional and informational support. It features a subjective assessment item related to the experience of loneliness. A short demographic section is included at the conclusion of the measure to aid with family structure

categorization. Statistical analyses comparing the EPSNQ support sources totals and overall total scores with the existing validated measure of the Family Support Scale showed satisfactory convergent validity. Comparisons with the DASS-21 subscales also suggest that the EPSNQ is measuring a construct inversely correlated with distress, as expected of the theoretically posited construct. The measure displayed acceptable temporal test-retest reliability despite pandemic related delays in the retest period.

The ability of the EPSNQ to pick up on more complicated family configurations allows researchers greater insight into how families are changing according to their own personal circumstances and global events. It allows for modernity by detecting the potential presence of new partners as well as biological parents who may no longer be coupled with the respondent. However, this inclusion is not at the exclusion of traditional arrangements or situations that are completely unique. The parent has an opportunity to essentially map out their close and extended support network, in the spirit of Bronfenbrenner's bioecological model (e.g., Bronfenbrenner & Ceci, 1994; Berk, 2004; Cassells & Evans, 2020). The added dimension of simultaneously indicating the type of parenting specific assistance provided by people and organizations in a person's social network lends a richness and clarity of insight to the resultant data. The study itself also adds to the literature around the importance of social support, particularly intimate partner support, during the early years of parenting.

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