

Predicting Family Quality of Life in Parents of Children with Elevated Symptoms of Attention-
Deficit/Hyperactivity Disorder

by

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Abstract

Parents of children with neurodevelopmental disorders, such as attention-deficit/hyperactivity disorder (ADHD), are at high risk for elevated levels of parenting stress. Given that parenting stress and family quality of life (FQOL) are inversely-related, it is surprising that research examining FQOL in ADHD populations is absent in the literature. In the present study, 145 parents of children ($n = 105$ mothers and $n = 40$ fathers), ages 5 to 12 years, with elevated symptoms of ADHD from Canada and the United States completed an online survey. The current study compared FQOL among coupled mothers and fathers ($n = 13$), examined the relationship between FQOL and parenting stress in mothers and fathers, and examined child and parental factors that predict FQOL in mothers and fathers. A paired samples t -test failed to show differences in FQOL among coupled mothers and fathers. Pearson correlations revealed negative correlations between FQOL and parenting stress in both mothers and fathers, however this result was only significant for mothers. Parental social support was the strongest predictor of FQOL in both mothers and fathers. The results of this study suggest that social support should be considered in development of interventions for families of children with elevated symptoms of ADHD. Future research should continue to examine fathers and couples' perspectives given the small sample size in this study.

Keywords: attention-deficit/hyperactivity disorder, family quality of life, parenting stress, social support

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Predicting Family Quality of Life in Parents of Children with Elevated Symptoms of Attention-Deficit/Hyperactivity Disorder

Families of children with neurodevelopmental disorders (NDDs) experience the typical stressors associated with parenthood, plus additional stressors unique to their child's condition (Brown et al., 2006; Craig et al., 2016). Parents of children with NDDs have to adjust to externalizing child behaviours, and attend specialized learning services and appointments more frequently (Mofokeng & van der Wath, 2017; Russell & McCloskey, 2016). Parents' time may feel limited, and attending to other siblings and family members can be difficult (Mofokeng & van der Wath, 2017). The well-established research on parenting stress in families of children with attention-deficit/hyperactivity disorder (ADHD; Craig et al., 2016; Theule et al., 2010) and autism spectrum disorder (ASD; Craig et al., 2016) has shown that these families experience higher levels of parenting stress than families of typically developing children.

Family quality of life (FQOL) is a novel construct that is inversely-related to parenting stress (Hsiao et al., 2017; Jenaro et al., 2020; Zeng et al., 2020). FQOL refers to how an entire family unit perceives their needs being met in many life domains that capture family dynamics (Zuna et al., 2011). If these life domains are rated as high, the family unit perceives their needs as being met, and would have an overall high level of FQOL (Zuna et al., 2011). FQOL research is gaining increasing attention, especially in the area of disability research (Summers et al., 2005; Zuna et al., 2009). Moreover, all existing measures of FQOL have been developed specifically for families of children with disabilities (Samuel et al., 2012); however, families of children with ADHD have been absent in the FQOL literature. Research in this area is crucial as there is an abundance of literature showing elevated levels of parenting stress in families of children with ADHD (Craig et al., 2016; Miranda et al., 2015; Theule et al., 2010; Theule et al., 2013). Furthermore, families of children with ASD have been found to experience lower levels of

FQOL than families of children with other disabilities (Bhopti et al., 2016; Brown et al., 2006). Given the similar stressors experienced in families of children with ASD and ADHD (Craig et al., 2016), FQOL may be compromised in families of children with ADHD. Due to the lack of research examining FQOL and ADHD, it is unknown how FQOL is perceived in these families, in addition to what factors may predict FQOL in this population.

FQOL and Parenting Stress

When we examine the literature on FQOL and ASD, as well as parenting stress and ADHD, we find some common predictors that contribute to each outcome variable respectively. Partner status (Hsiao, 2018; Kersh et al., 2006), levels of social support (Lei & Kantor, 2020; Lu et al., 2018; Theule et al., 2010), and levels of parental depression symptomology (Lee, 2009; Theule et al., 2010; Theule et al., 2013), are common factors in the literature that predict levels of FQOL in families of children with ASD, and levels of parenting stress in families of children with ADHD. Single parent families often experience higher levels of stress than two-parent families in both the disability and typically developing literatures (Liang et al., 2019; Theule et al., 2010). Sharing the childrearing duties with a supporting partner or co-parent when raising a child may lower parenting stress (Cairney et al., 2003). Higher levels of social support from friends, family, and support services are also associated with lower levels of parenting stress in families of children with ADHD (Theule et al., 2010), and higher levels of FQOL in families of children with ASD (Lei & Kantor, 2020; Lu et al., 2018). Furthermore, depressive symptoms are often elevated in parents of children with disabilities, and higher levels of parental depression predict parenting stress in the ADHD literature (Theule et al., 2010; Theule et al., 2013).

Parenting stress is a key variable to examine, as it is linked to parent mental health and parent-child interactions (Canadian Paediatric Society, 2004; Epifanio et al., 2015; Wymbs et al.,

2016); however, parenting stress is a dyadic variable (Abidin, 2012), rather than a system (or family) wide variable. Generally, there is a lack of family level study in this literature, which is a gap (Parke, 2017). The research that does exist is very limited in families of children with ADHD (Alderfer et al., 2008; Schroeder et al., 2009; Young et al., 2013). The few studies in this area have examined constructs such as family functioning and family environment (Alderfer et al., 2008; Schroeder et al., 2009; Young et al., 2013). Moreover, many of the measures used to assess these constructs use observational coding or interviews, which can feel intensive and intrusive, and are not always practical (Alderfer et al., 2008; Pritchett et al., 2011). The few self-report measures available have significant limitations. Practical issues such as accessibility and time due to length of questionnaires are potential roadblocks (Alderfer et al., 2008; Hamilton & Carr, 2016; Pritchett et al., 2011). Furthermore, the studies that do examine “family functioning” do so by using parent proxy-reports to provide a measure of their child’s individual Quality of Life (QoL), or by using a measure of parenting stress (Cussen et al., 2012; Galloway & Newman, 2017; Malkoff et al., 2019), rather than measuring family functioning per se.

Parenting stress, on the other hand, is one of the most widely researched variables in the field of disabilities (Parke, 2017). The *Parenting Stress Index* (PSI) developed by Abidin (1983, 1990, 1995, 2012) is the prominent measure of parenting stress in research (Johnston & Mash, 2001). Abidin’s established model of parenting stress is comprised of two main parts: a child domain and a parent domain (Abidin, 2012). Although widely used, the PSI is a negatively valenced measure, and negative evaluations are often weighted more heavily than positive evaluations (Abidin, 2012; Shuman et al., 2013). On the other hand, FQOL looks at the broader family system, recognizing that the family unit is interdependent, and larger than the sum of its parts (Kerr, 2000; Zuna et al., 2011). FQOL concerns family interactions and dynamics that

consist of ongoing relationships among all family members (Zuna et al., 2011). The *Beach Center Family Quality of Life Scale* (Beach Center FQOL Scale; Beach Center on Disabilities, 2006), often used to assess FQOL, is gaining increased attention (Summers et al., 2005; Zuna et al., 2009). This could be due to its positively valenced items and broader family focus, taking a strengths-based approach to disability research (Beach Center on Disabilities, 2006; Samuel et al., 2012; Zuna et al., 2011).

Along with the lack of research examining FQOL in families of children with ADHD, there is also a lack of research that captures responses from more than one family member (Hu et al., 2011). FQOL is meant to assess the entire family unit's perspective of their needs being met (Zuna et al., 2011); however, almost all of the research to date considers FQOL from the perspective of one respondent, the mother (Hu et al., 2011). This research is extremely valuable, as mothers have been shown to take on a central role in the family unit, especially when there is a child with a disability (Bourke-Taylor et al., 2010; Gray, 2003; McStay et al., 2014). This research has also built a foundation for FQOL; however, a more comprehensive understanding of FQOL may be achieved if both mothers and fathers are studied.

The current study bridges the gap in the literature by examining FQOL in families of children with elevated symptoms of ADHD. The relationship between FQOL and parenting stress was further examined, given the prominence of parenting stress in the literature, and the lack of family-level study in ADHD research. Additionally, the current study examined FQOL from the perspective of more than one family member to gain a clearer picture of the family unit. The current study recruited coupled mothers and fathers of children with elevated symptoms of ADHD to grasp a deeper understanding of the family unit. Furthermore, the current study included single parents and parents whose co-parent did not participate in the study to examine

what variables predict FQOL in each of mothers and fathers. Given the inverse relationship between parenting stress and FQOL (Hsiao et al., 2017; Jenaro et al., 2020; Zeng et al., 2020), the variables of partner status, social support, and parent depression symptomology were examined in the current study to predict FQOL in families of children with elevated symptoms of ADHD. Having an understanding of the factors that contribute to FQOL is essential for improving FQOL, which in turn can result in a cycle of benefits such as reducing parenting stress (Hsiao et al., 2017).

Neurodevelopmental Disorders (NDDs)

NDDs are a group of disorders characterized by developmental deficits that produce impairments of personal, social, or academic functioning (American Psychiatric Association [APA], 2022). NDDs are lifelong conditions, that are associated with the functioning and development of the brain (APA, 2022). NDDs are primarily genetic and highly heritable, meaning that family members of a child with an NDD are also more likely to have a diagnosis of an NDD (APA, 2022; Minde et al., 2003). Many NDDs co-occur with externalizing behaviours (APA, 2022), which are outward behaviours acted on the external environment that interfere with daily functioning (Hutchison et al., 2016; Jianghong, 2004). Externalizing behaviours can be disruptive, hyperactive, and/or aggressive (Jianghong, 2004). Both ADHD and ASD are classified in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) as NDDs (APA, 2022).

Family factors in NDDs. Parenting stress refers to the negative emotions a caregiver feels toward themselves and/or their child due to the weight felt in their caregiving role (Deater-Deckard, 1998). The increased levels of stress in parents of children with NDDs may be due to the externalizing behavior problems manifested by children with these disorders (Gray, 2002;

Hutchison et al., 2016). Additionally, increased levels of stress may be due to the demand on parents' time as a result of the unique support needs that children with NDDs require, such as frequent medical and specialized service appointments (Russell & McCloskey, 2016). Finding a childcare provider with the specialized training to work with a child with disabilities, and who is a good fit may also add stress to families' lives (Cadman et al., 2012; Ludlow et al., 2011).

Families of children with ADHD and ASD experience similar stressors (Craig et al., 2016) and some research suggests that parents of children with ADHD may even experience greater parenting stress than parents of children with ASD (Miranda et al., 2015; van Steijn et al., 2014).

Attention-deficit/hyperactivity disorder (ADHD). ADHD is an NDD characterized by persistent symptoms of inattention and/or hyperactivity/impulsivity (APA, 2022). Symptoms of inattention include difficulty focusing and maintaining attention to details, activities, and tasks, as well as difficulty managing time and organizing materials (APA, 2022). Symptoms of hyperactivity/impulsivity include fidgeting, squirming, running around, interrupting, talking excessively, and acting on impulse (APA, 2022). The symptoms of ADHD must be present in more than one setting and interfere with daily functioning for a diagnosis (APA, 2022). ADHD is one of the most common childhood disorders, with an estimated prevalence rate of 5% (APA, 2022). Most children are diagnosed with ADHD around the age of 7 years (APA, 2022; Centers for Disease Control and Prevention [CDC], 2018). Furthermore, there is a higher prevalence of ADHD in males than females (APA, 2022). Girls with ADHD tend to show symptoms of inattention, whereas boys with ADHD tend to show symptoms of hyperactivity (APA, 2022).

ADHD often co-occurs with other disorders such as ASD, oppositional defiant disorder, and conduct problems (APA, 2022; CDC, 2018). Both oppositional defiant disorder and conduct problems are defined by high levels of externalizing behaviours. Some research suggests that

externalizing behaviours are stronger predictors of parenting stress than ADHD symptoms in this population (Podolski & Nigg, 2001). Although much research includes parents who have a child with a diagnosis of ADHD, it is important to include parents of children with elevated symptoms of ADHD.

Symptoms of ADHD

Many children present with symptoms of ADHD, but do not have a formal diagnosis of ADHD. This could be due to arbitrary nature of ADHD criteria for diagnosis, behaviour of ADHD being considered a dimensional trait, the differences in assessment of ADHD across disciplines, access to healthcare, and the underdiagnosis of certain subgroups (Barkley, 2006; DuPaul, 2021; Hinshaw et al., 2022; Riju et al., 2014). To meet ADHD criteria, individuals need to reach a symptom count of six inattention and/or six hyperactivity-impulsivity symptoms (APA, 2022). If an individual presented with five inattention or five hyperactivity impulsivity symptoms, they would not meet criteria for an ADHD diagnosis. However, it is likely that the symptoms this individual is presenting with would still impact their daily functioning, which can increase parenting stress. The relationship between ADHD symptom severity and parenting stress has been clearly established in previous research (Theule et al., 2012). Furthermore, there are multiple professionals that can diagnose ADHD. These include physicians, pediatricians, school psychologists, clinical psychologists, psychiatrists, and neurologists (Riju et al., 2014). Although these professionals can all diagnose ADHD, the assessment process may look different across these disciplines. For example, pediatricians often meet with the individual for their fifteen-minute appointment, and will distribute a rating scale with a narrow focus on ADHD (Handler & DuPaul, 2005; Moldavsky & Sayal, 2013; Riju et al., 2014). On the other hand, a school psychologist often spends hours with the student, is able to observe them in the classroom

setting, and will administer multiple types of assessments and distribute many rating scales, that look at a broader scope of concerns (Handler & DuPaul, 2005; Moldavsky & Sayal, 2013; Riju et al., 2014). The assessment process could also impact whether the child receives a diagnosis. Access to assessments and healthcare may also be another reason for individuals not being diagnosed, particularly in the United States or rural communities (Epstein et al., 2014; Smith, 2017). Costs for healthcare are not covered in the United States as they are in Canada. Furthermore, it is difficult to recruit and retain clinicians and other professionals in rural communities. Females are often underdiagnosed with ADHD (Hinshaw et al., 2022). Inattentiveness is more pronounced than hyperactivity/impulsivity in female presentations of ADHD. Additionally, internalizing behaviours, such as anxiety, often co-occur in females with ADHD. This could result in a missed diagnosis (Hinshaw et al., 2022). Furthermore, ethnic and racial minorities are less likely to receive an ADHD diagnosis than white populations (Morgan et al., 2013). Given these different reasons, looking at elevated ADHD symptoms rather than the presence or absence of an ADHD diagnosis was the approach used in the current study.

Family Systems Theory

Family systems theory, developed by Bowen in 1978, provides a useful framework for understanding how families form an interconnected system. Family systems theory holds that if something occurs to one member of the family, all members of the family unit will be affected due to their interdependence. Family systems theory “views the family as an emotional unit in which change in one person’s functioning is predictably followed by reciprocal changes in the functioning of others” (The Bowen Center for the Study of the Family, 2021, para.1). Family systems theory suggests that the stress and emotions that arise from the unique challenges that come along with raising a child with ADHD are felt across the whole family unit (Kerr, 2000).

The unique challenges that accompany ADHD can affect the Quality of Life (QoL) of the child, and the parents of the child with ADHD (Danckaerts et al., 2010; Galloway & Newman, 2017).

Quality of Life

QoL is defined as “the degree of need and satisfaction within the physical, psychological, social, activity, material, and structural areas” (Post, 2014, p.171). Essentially, an individual’s QoL refers to the degree to which the individual perceives their expectations/needs being met or not in these life domains (Zuna et al., 2011). QoL has been shown to be reduced in children with disabilities, as well as in their parents (Danckaerts et al., 2010; Galloway & Newman, 2017). The majority of studies in this area have used parent proxy-reports to provide a measure of a child’s QoL (Galloway & Newman, 2017). HRQOL and QoL are often used interchangeably in the literature (Taylor et al., 2008); however, HRQOL has a specific focus on the perceived physical and mental health status of an individual (CDC, 2021). Research using these measures has found that children with ADHD show comparable levels of HRQOL when compared to other health conditions, which are lower than the QoL of typically developing children (Danckaerts et al., 2010; Galloway & Newman, 2017). QoL and HRQOL are important outcomes to measure; however, the family system is more than the sum of its parts, and therefore the broader family system should be taken into consideration (Kerr, 2000; Zuna et al., 2011).

Family Quality of Life (FQOL)

FQOL is a newer construct that is an extension of the individual QoL construct (Zuna et al., 2011). While QoL focuses on an individual’s wellbeing, one of the main concepts within FQOL is that the family is a unit (Zuna et al., 2011). As a result, FQOL concerns the fulfillment of the family’s needs. FQOL is determined by how all family members subjectively feel about their expectations/needs being met or not within many life domains (Zuna et al., 2011). By

considering the quality of life of the family unit, a wider range of insight can be gained into the family's satisfaction (Hu et al., 2011; Zuna et al., 2011).

FQOL and maternal perspectives. Although much of the research in the parenting stress and FQOL literature refers to “families,” as discussed above, most of the participants in these studies are mothers (Bourke-Taylor et al., 2010; Hu et al., 2011; McKechnie et al., 2017; McStay et al., 2014; Rillotta et al., 2012; Steel et al., 2011). Two of the major studies in this area solely recruited mothers (McKechnie et al., 2017; McStay et al., 2014) and the remaining major studies had over 80% mother respondents (Brown et al., 2006; Gardiner et al., 2015; Hsaio et al., 2017; Hsaio, 2018; Rillotta et al., 2012; Schlebusch et al., 2017; Steel et al., 2011; Summers et al., 2007; Wang et al., 2004). Mothers are extremely informative respondents as research continues to show that mothers are more likely to take on greater caregiving responsibilities, especially in cases where the child is diagnosed with a disability (Bourke-Taylor et al., 2010; Gray, 2003). However, the method of having a single respondent is contradictory to theory of FQOL, and the results of studies on maternal perspectives may not be generalizable to the entire family unit (Hu et al., 2011).

Fathers may experience unique and distinct experiences from mothers. In the parenting stress and ADHD literature, some studies have found that mothers experience higher levels of parenting stress in comparison to fathers (Theule et al., 2013). This may be because mothers are traditionally the primary caregiver for their children (Craig, 2006; Kotila et al., 2013). Although this gap of involvement has been narrowing over the years, fathers tend to be involved with their children in different ways than mothers (Craig, 2006; Kotila et al., 2013). Specifically, mothers often hold greater responsibility for childcare tasks and household duties, whereas fathers tend to be more involved in play and leisure (Craig, 2006; Kotila et al., 2013).

Furthermore, in families of children with ADHD, fathers may have a unique perspective due to genetic influences and gender differences (Johnston et al., 2016). Many parents of children with ADHD experience ADHD symptoms themselves (Minde et al., 2003; Starck et al., 2016). Given that ADHD is more common in boys (APA, 2022), fathers with ADHD symptoms may be better able to relate to their son with ADHD, given the gender match (Johnston et al., 2016). Symptoms of hyperactivity and impulsivity in parents with ADHD have also been linked to more positive parenting (Lui et al., 2013). Given that hyperactive symptoms are more commonly present in males (APA, 2022), and the potential benefits of these symptoms with parenting (Lui et al., 2013), fathers may be able to identify with their sons with ADHD, potentially acting as a buffer against higher levels of parenting stress (Johnston et al., 2016). There is however, limited evidence for this explanation (Johnston et al., 2016; Lui et al., 2013), and differences between mothers' and fathers' parenting experiences have been inconsistent in the literature (Johnston & Mash, 2001; McCleary, 2002; Theule et al., 2013; Wiener et al., 2016). As the field of disabilities moves to a family-centered approach to services (Brown et al., 2007; Vanderkerken et al., 2019), considering family outcomes, from the perspective of both mothers and fathers, is increasingly important.

It is important to note that this discussion is limited to mother-father relationships. Mother-father relationships typically follow traditional gender roles, which in turn, lead to gender-specific social and parenting behavior. There is currently a lack of research regarding sexually and gender diverse families. These families may have unique experiences which are imperative to investigate. The current study focused on mother-father couples as this was a gap in the FQOL research. Although eligible for participation, there was no participation from sexually and gender diverse families in the current study.

FQOL and Disability Research

Previous research has explored FQOL in families of children with ASD, Down syndrome, intellectual developmental disabilities (IDDs), and even typically developing children (Bhopti et al., 2016; Brown et al., 2006; McStay et al., 2014). Results have consistently shown that families of children with ASD experience lower levels of FQOL compared to families of children in the above-mentioned groups (Bhopti et al., 2016; Brown et al., 2006). The few studies that have examined ADHD narrowed their focus to QoL or HRQOL of the child with ADHD, and not FQOL (Azazy et al., 2018; Danckaerts et al., 2010; Galloway & Newman, 2017; Landgraf et al., 2002).

Overlapping Predictors in FQOL and Parenting Stress Research

Although FQOL research has not been conducted on families of children with ADHD, the literature on parenting stress in families of children with ADHD is well-established (Craig et al., 2016; Miranda et al., 2015; Theule et al., 2010). We know that families of children with ASD experience the lowest levels of FQOL when compared to typical and other clinical groups (Brown et al., 2006; Bhopti et al., 2016; McStay et al., 2014), and that families of children with ADHD experience heightened levels of parenting stress (Craig et al., 2016; Miranda et al., 2015; Theule et al., 2010; Theule et al., 2013). Symptoms of ADHD and ASD often co-occur (APA, 2022; CDC, 2018), therefore focusing on the ASD and FQOL literature will direct us to potential factors that contribute to FQOL in families of children with ADHD. When examining the literature on families of children with ASD and FQOL, and families of children with ADHD and parenting stress, as noted above, there are overlapping predictors that may potentially predict FQOL in families of children with ADHD.

Single parenthood. Single parent households have increased over the years in Canada and the United States (Statistics Canada, 2015; Vespa et al., 2012). Single parenthood can result from separation and divorce, or can occur by choice (Brown et al., 2008). Additional stressors and poorer mental health outcomes are more often experienced in single-parent families than two-parent families (Cooper et al., 2009; Liang et al., 2019; Olsson & Hwang, 2001), perhaps more so when raising a child with a disability (Olsson & Hwang, 2001). Partner status is associated with FQOL in the ASD literature (Hsiao, 2018; McAuliffe et al., 2017). Additionally, single parents of children with ADHD have been found to have higher levels of parenting stress compared to partnered parents (Theule et al., 2010). Partnered parents may feel like they share the child rearing responsibilities through both their participation and involvement (McClain & Brown, 2017). Having a partner also serves as a source of social support (Carter et al., 2015).

Although much research points in the direction that partner status impacts levels of parenting stress (Cooper et al., 2009; Liang et al., 2019; Olsson & Hwang, 2001; Theule et al., 2010), whether partner status can predict FQOL in families of children with ADHD is unknown. Furthermore, it is unknown if having a partner predicts FQOL in mothers and fathers differently. This may be due to the lack of family research including both parents (Bourke-Taylor et al., 2010; Hu et al., 2011; McStay et al., 2014; Rillotta et al., 2012; Steel et al., 2011). The current study recruited single and coupled parents to investigate how partner status predicts FQOL in families of children with ADHD.

Social support. Social support provides a recipient with enhancements to their well-being through their social ties to individuals, groups, and the community (Zimet et al., 1988). Social support can be emotional, informational, or monetary (Carter et al., 2015). Social support has been found to be inversely related to parenting stress in families of children with ADHD

(Theule et al., 2010) and positively related to FQOL in families of children with ASD (Bhojti et al., 2016; Lu et al., 2018). In addition to social support predicting lower parenting stress in families of children with ADHD (Theule et al., 2010), these families are at risk for lower levels of social support from family and friends than families of children without ADHD (Lange et al., 2005). Support from friends and family are factors that contribute to higher levels of FQOL in families of children with ASD (Bhojti et al., 2016). Social support is an especially important factor to examine, as lower levels of social support are related to mental health concerns, specifically depression (Benson, 2012).

Depression symptomology. Symptoms of depressive disorders include feelings of emptiness, sadness, and irritability (APA, 2022). Parental depressive symptomology has been found to be a significant predictor of parenting stress in families of children with ADHD (Biondic et al., 2019; Theule et al., 2010; Theule et al., 2013). A meta-analysis found that mothers of children with ADHD had significantly higher levels of depressive symptoms than mothers of children without ADHD (Cheung et al., 2018). Furthermore, higher levels of depression symptomology have been found in parents of children with ASD in comparison to parents of typically developing children (Lee, 2009). Parental depression is thought to exacerbate parenting stress (Biondic et al., 2019; Theule et al., 2013). Depression symptoms may result in the use of less adaptive coping mechanisms that would otherwise help with reducing parenting stress (Biondic et al., 2019). Higher levels of depression may lead to negative parenting and communication towards children (Canadian Paediatric Society, 2004), especially when raising a child with ADHD (Wymbs et al., 2016). Examining whether parental depression symptomology contributes to FQOL in families of children with ADHD is imperative.

ADHD and FQOL

Referencing the literature on families of children with ASD and ADHD, and their FQOL and parenting stress respectively, is a helpful starting point to deepen our understanding of potential factors that may contribute to FQOL in families of children with elevated symptoms of ADHD. Rates of parenting stress are at increased levels in families of children with ADHD (Theule et al., 2013), and may even be greater than other clinical groups (Miranda et al., 2015). Given the stressors that families of children with ADHD face, it is surprising that no studies have focused exclusively on families of children with ADHD and their perspective of FQOL. Given the inverse relationship between parenting stress and FQOL (Hsiao et al., 2017; Jenaro et al., 2020; Zeng et al., 2020), it is possible that families of children with elevated symptoms of ADHD are at risk for low levels of FQOL. It is important to examine FQOL in families of children with elevated symptoms of ADHD as it unknown how these families perceive their family needs and experiences. Additionally, understanding what factors contribute FQOL may help to further target and improve these factors, which could indirectly enhance FQOL.

Current study

The current study addressed an important gap in the literature by examining factors that may contribute to levels of FQOL in parents of children with elevated symptoms of ADHD. First, this study compared FQOL in coupled mothers and fathers of children with elevated symptoms of ADHD aged 5-12 years. Focusing on coupled mothers and fathers gathers a broader perspective of the family unit and provide a comprehensive look into FQOL, as the majority of research only recruits mothers as respondents (Hu et al., 2011). This method provided insight into any potential differences between mothers and fathers and what factors may better predict FQOL in mothers vs fathers. Second, this study included single mothers, and fathers, as well as parents whose co-parent did not participate in the study for additional research

questions which investigated predictors of FQOL. Same-sex parents were eligible; however, there was no participation from same-sex couples or individuals who did not identify as a mother or father of a child with elevated ADHD symptoms. Partner status, social support, and depression symptomology have all been shown to be predictors of FQOL in families of children with ASD, and parenting stress in families of children with ADHD (Bhojti et al., 2016; Biondic et al., 2019; Cooper et al., 2009; Hsiao, 2018; Johnson et al., 2011; Lee et al., 2009; Lu et al., 2018; Lange et al., 2005; Liang et al., 2019; Olsson & Hwang, 2001; Theule et al., 2010; Theule, et al., 2013; Wang et al., 2004). Therefore, these three predictors were used in the current study to predict FQOL in parents of children with elevated symptoms of ADHD. Education level, child ADHD symptomology, child gender, and child age, were controlled for in the analysis. Lastly, the association between FQOL and parenting stress was examined to further understand the relationship between these two variables.

Parents completed an online survey that explored parent and child demographics, child ADHD symptoms, education level, partner status, social support, parental depression symptoms, as well as overall level of FQOL. Results were entered into the Statistical Package for the Social Sciences (SPSS Version 25.0; IBM Corp., 2017). A paired samples *t*-test was then conducted to examine if coupled mothers and fathers differ in their perspectives of FQOL. Further, two separate hierarchical multiple regressions were conducted for each of mothers and fathers to see what variables predict FQOL in each parent gender group. Pearson correlations were used to assess the relationship between FQOL and parenting stress separately in mothers and fathers of children with elevated symptoms of ADHD.

Objectives

The main objective of the present study was to examine if coupled mothers and fathers of children with elevated symptoms of ADHD differ in their perspectives of FQOL. Further, this study investigated if partner status, social support, and parental depression symptoms predicted FQOL in mothers and fathers of children with elevated symptoms of ADHD over and above parent education level, child ADHD symptomology, child gender, and child age. The final objective of the present study was to further understand the relationship between parenting stress and FQOL, given the prominence of the study of parenting stress in the literature. The present study sought to answer the following research questions:

1. Do coupled mothers and fathers differ in their perspectives of FQOL?
2. Does partner status, social support, and depression symptomology predict FQOL in mothers of children with elevated symptoms of ADHD?
3. Does partner status, social support, and depression symptomology predict FQOL in fathers of children with elevated symptoms of ADHD?
4. To what degree do FQOL and parenting stress correlate in a) mothers and b) fathers of children with elevated symptoms of ADHD?

Hypotheses

Given the overlap in predictors and the relationship between FQOL and parenting stress (Hsaio et al., 2017), it was predicted that:

1. Coupled mothers and fathers would significantly differ in their perspective of FQOL, with mothers experiencing lower levels of FQOL compared to fathers.
2. Partner status, social support, and depression symptomology would significantly predict FQOL for mothers of children with elevated symptoms of ADHD after controlling for education level, child ADHD symptomology, child gender, and child age.

3. Partner status, social support, and depression symptomology would significantly predict FQOL for fathers of children with elevated symptoms of ADHD after controlling for education level, child ADHD symptomology, child gender, and child age.
4. FQOL and parenting stress would be negatively correlated in a) mothers and b) fathers of children with elevated symptoms of ADHD.

Method

Research design

A cross-sectional online study was conducted. The predictor variables for the regression analyses were partner status, social support, and depression symptomology. The criterion variable was parent ratings of FQOL. The effect of each predictor variable on FQOL in each gender was examined. Potential predictors of FQOL that were controlled for are child ADHD symptomology, child age, child gender, and education level. The education level variable was ranked (1 = less than high school, 2 = high school, 3 = some post-secondary education, 4 = completed post-secondary education). This study was reviewed and approved by the University of Manitoba's Psychology/Sociology Research Ethics Board (PSREB) before proceeding.

Participants

Eligibility. Parents who have a child with elevated symptoms of ADHD between 5 and 12 years old were asked to participate in the study. Parents were included if they reported clinically significant ADHD symptoms for their child on the *ADHD Rating Scale-IV: Home Version* (DuPaul et al., 1998) screening measure. ADHD symptoms were analyzed continuously in children with and without a parent-reported diagnosis of ADHD to enhance statistical power. Participants were excluded if they parent-reported and/or met criteria on an ASD screening measure for their child. Children with comorbid ASD and ADHD have been shown to have

higher rates of disruptive behaviours in comparison to children diagnosed with only one of these disorders (Goldin et al., 2013; Jang et al., 2013). This exclusion was undertaken to ensure sample homogeneity as some studies suggest that those with comorbid ASD and ADHD have a severe and unique clinical and behavioural profile from those with these disorders alone (Gargaro et al., 2014). Both coupled and single mothers and fathers were included in the present study. Mothers and fathers were included on the basis of participants' self-identification as holding this role. Only coupled mothers and fathers were analyzed in the paired samples *t*-test to examine differences in FQOL between the pair. Co-parents such as grandparents, stepparents, aunts/uncles, or other caregivers tied to raising the child, were not included in the current study as the variables such as partner status may vary from the primary caregiver. This was done to ensure accurate representation of the data. For example, grandparents, aunts, and/or uncles may not reside with the child and the primary caregiver; therefore, demographic information, familiarity of the child's ADHD symptoms, and partner status, would likely differ.

Recruitment. Participants were recruited from Canada and the United States of America through a variety of ADHD organizations and social media postings. Canadian organizations, such as the Centre for ADHD Awareness Canada (CADDAC), and The Canadian ADHD Resource Alliance (CADDRA) were contacted. Organizations from the United States of America, such as Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD), and Attention Deficit Disorder Association (ADDA) were also reached via email. Social media postings were used to reach potential participants across Canada and the United States of America through support blogs, Instagram pages, and Facebook groups (e.g., ADHD Together - Support Group, ADHD Awareness). Physical posters were posted in local community settings.

Sample Size. Prior to conducting the study, using G*Power 3.1 software (Faul et al., 2007), a power analysis was conducted to ensure adequate power (.80) would be achieved at an alpha level of .05. Using an effect size of $d = .29$, based on a related study comparing coupled mother and father levels of parenting stress (Seah & Morawska, 2016), a sample size of at least 192 parents (96 dyads) was required for the current study. Unfortunately, this sample size was not achieved given challenges with recruiting fathers and couples. Description of the sample is provided in the results section of this manuscript.

Data Collection Procedure. Recruitment advertisements provided contact information, outlined study details, and provided a link directing interested participants to an online survey. The online survey was created by Prairie Research Associates (PRA), a company offering research consultancy with experience in sophisticated survey design. Once participants clicked on the survey link, they were prompted to a consent form, which outlined the study objectives. Participants had the option to receive a copy of the consent form via email for their records. After participants consented to participating in the study, they then completed a demographics questionnaire and the measures outlined below. At the end of the survey, participants were asked if they have a co-parent or partner that they would like to send the survey to. If the participant agreed to share the survey, a text entry box appeared that asked for the co-parent's email address, as well as the relationship between the participant and the co-parent (biological parent, step-parent, etc.). The link to the survey was automatically emailed to the entered address. In the dataset, participants were linked as co-parents through the matching email address. It is important to note that this study was part of a larger study, and there were additional measures compiled in the survey that are not described in this manuscript. Once the survey was completed,

all participants were given the opportunity to enter a draw to win one of fifteen \$50 Amazon gift cards by entering their email address.

This study was part of a larger study which recruited parents of children with ASD, ADHD, co-occurring ASD and ADHD (ASD+ADHD), and typically developing (TD) children. The survey prioritized the target child (the child parents were reporting on) in the following order: the youngest child with ASD+ADHD, the youngest child with ASD, the youngest child with ADHD, followed by the youngest TD child. It is possible that the parents who participated in this study had more than one child. The target child for those with ADHD was selected based on the following: the child with a parent-reported diagnosis of ADHD between the ages of 5-17 years old (in families with one child with ADHD) or the *youngest* child with a parent reported diagnosis of ADHD between the ages 5-17 years old (in families with more than one child with ADHD) was selected. Half way through the recruitment efforts, the prioritized target child selection was swapped to have children with ADHD prioritized over children with ASD, in addition to selecting the oldest child, in attempts to increase the sample size of parents of children with ADHD.

Measures

Demographic questionnaire. Parents were first asked to report on parent and child demographic information. The demographic questionnaire also obtained information about some predictor variables (education level and partner status). The demographics questionnaire asked parents to report on items such as gender, age, country of residence, and child co-occurring disorders which provided information that was used to later describe the sample (See Appendix A).

ADHD Rating Scale-IV: Home Version. The *ADHD Rating Scale-IV: Home Version* was used to confirm the presence of clinically-significant ADHD symptoms in the child (DuPaul et al., 1998), as well as to assess overall level of ADHD symptomology. This parent-completed measure was developed for children ages 5-18 years (DuPaul et al., 1998). Parents answered 18 items on their child's ADHD symptomology. The measure consists of two subscales; one measuring inattention symptoms and the second measuring hyperactivity-impulsivity symptoms. The total raw scores were used in the regression analysis of the current study. Items are rated on a 4-point Likert rating scale (*never or rarely, sometimes, often, very often*). Items on the measure include "Runs about or climbs excessively in situations in which it is inappropriate" and "Does not seem to listen when spoken to directly" (See Appendix B). Raw scores were converted to percentile scores using the scoring sheet and the child's gender and age (DuPaul et al., 1998). For the child to meet ADHD criteria, the 80th percentile rank was used as a cut-off point on the total score (DuPaul et al., 2016). The *ADHD Rating Scale-IV: Home Version* has been found to have adequate internal consistency (Cronbach's $\alpha = .92$) and good test-retest reliability (Cronbach's $\alpha = .85$; DuPaul, et al., 1998).

Social Communication Questionnaire-Lifetime Version (SCQ). The *Social Communication Questionnaire* (SCQ; Rutter et al., 2003), formerly known as the Autism Screening Questionnaire (ASQ; Berument et al., 1999), was used as a screening tool for ASD. This parent-completed measure was developed for individuals aged 4-40 years (Berument et al., 1999). The SCQ is a 40-item measure, that required parents to answer "yes" or "no" to questions about their child's behaviour and development (Rutter et al., 2003). Scores range from 0-40, with higher scores indicating greater ASD symptomology (Rutter et al., 2003). The measure consists of three subscales: reciprocal social interaction, language and communication, and stereotyped

patterns of behavior (Rutter et al., 2003). Items on the measure include “is he/she now able to talk in short phrases or sentences?” and “does he/she ever get his/her pronouns mixed up (e.g., saying *you* or *he/she* for I)? (See Appendix C). A score of 15 was used as a cut off in the present study, due to its high specificity and sensitivity (Berument et al., 1999). Participants who scored 15 or higher were excluded in the present study. The SCQ has adequate internal consistency (Cronbachs $\alpha = .87$; Brooks & Benson, 2013) and discriminates well between ASD and non-ASD cases with a sensitivity of .85 and a specificity of .75 (Berument et al., 1999).

Center for Epidemiologic Studies Depression Scale. The *Center for Epidemiologic Studies Depression Scale* (CES-D; Radloff, 1977) was used to assess parents’ symptoms of depression. The CES-D is a 20-item self-report measure designed to assess depression levels in the general population (Radloff, 1977). Major components of depression symptoms assessed include depressed mood, feelings of guilt, hopelessness, loss of appetite and sleep disturbance (Radloff, 1977). Parents rated how often over the past week they experienced symptoms associated with depression. Items on the CES-D include “I did not feel like eating; my appetite was poor” and “I had trouble keeping my mind on what I was doing” (See Appendix D). Responses are rated on a 4-point Likert rating scale ranging from 0 to 3 (*0 = Rarely or None of the Time, 1 = Some or Little of the Time, 2 = Moderately or Much of the time, 3 = Most or Almost All the Time*). Scores range from 0 to 60, with higher scores indicating greater depressive symptoms. The CES-D has excellent internal consistency ($\alpha = .85 - .90$) and demonstrates good content validity as the items on the CES-D were pooled from previously validated measures of depression such as the Beck Depression Inventory (BDI; Beck et al., 1961; Radloff, 1977). A score of 16 or greater indicates that individuals are at risk for clinical depression with good sensitivity and specificity and high internal consistency (Lewinsohn et al., 1997). According to

more conservative studies, a cut-off score of 20 is more effective at identifying major depression (Vilagut et al., 2016).

The Multidimensional Scale of Perceived Social Support. The *Multidimensional Scale of Perceived Social Support* (MSPSS; Zimet et al., 1988) is a self-report measure used to assess subjective ratings of perceived social support. The MSPSS measures the perceived adequacy of support from three sources: family, friends, and significant other. The measure consists of 12 items that are rated on a 7-point Likert scale (*very strongly disagree, strongly disagree, mildly disagree, neutral, mildly agree, strongly agree, very strongly agree*; Zimet et al., 1988). Items on the measure include “There is a special person who is around when I am in need”, “I get the emotional help and support I need from my family”, and “I have friends with whom I can share my joys and sorrows” (See Appendix E). Scores on the MSPSS range from 1 to 7. Higher scores indicate higher levels of perceived social support. Mean scale score ranging from 1 to 2.9 could be considered low support; a score of 3 to 5 could be considered moderate support; a score from 5.1 to 7 could be considered high support (Zimet et al., 1988). The MSPSS has high internal consistency ($\alpha = .85 - .91$). The MSPSS also demonstrates adequate construct validity, showing significant negative correlations with the Depression and Anxiety subscales of the Hopkins Symptom Checklist (Zimet et al., 1988). The MSPSS has also been used in multiple studies to assess social support in parents of children with disabilities (Lu et al., 2018; Polat & Karakas, 2019; Skok et al., 2006).

The Parenting Stress Index—4—Short Form. The *Parenting Stress Index—4—Short Form* (PSI—4—SF) was used to assess parents’ level of parenting stress in parent-child interactions (Abidin, 2012). The PSI—4—SF is normed for parents of children under the age of 12. This self-report measure includes 36 items that are rated on a 5-point scale from *strongly agree*

to strongly disagree. These items result in a Total Stress Scale, and three subscale scores: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. Only the Total Stress Scale was used in this study to assess overall parenting stress. Items on the measure include “There are quite a few things that bother me about my life” and “Since having this child, I have been unable to do new and different things” (See Appendix F). The PSI-4-SF has excellent internal consistency ($\alpha = .88 - .95$) and correlates with the full PSI inventory (Abidin, 2012). The PSI is the dominant measure of parenting stress in the literature (Hayes & Watson, 2013; Johnston & Mash, 2001). Scores that convert to the 85th-89th percentile are considered high, and scores that convert to the 90th percentile or higher are considered clinically significant (Abidin, 2012).

The Beach Centre Family Quality of Life Scale. The *Beach Center Family Quality of Life Scale* (Beach Center FQOL Scale; Beach Center on Disabilities, 2006) was used to measure parent’s satisfaction with overall FQOL. This measure is specifically designed for use with families who have a child with a developmental disability (Hoffman et al., 2006). The Beach Center FQOL scale is comprised of five different domains: Family Interaction, Parenting, Emotional Well-being, Physical/Material Well-being, and Disability-Related Support. The domain of Family Interaction measures how satisfied family members are with their connectedness with one another through communication, support, and family time spent together. The Parenting domain measures how satisfied family members are with the caregivers teaching, guiding, and encouraging of the child’s school work, activities, and relationships with others. The Emotional Well-being domain measures family members satisfaction with supports that take away from stress, such as friends, family, and personal time to pursue their own interests. The domain of Physical/Material Well-being assesses satisfaction with the family’s

access to transportation, medical supports, dental care, safety in the community, and the family's ability to take care of expenses. The Disability-Related Support domain captures the family's satisfaction with access to disability related supports they receive across school, work, and home (Samuel et al., 2012). Each domain consists of 4-6 items, resulting in total of 25 questions. Each item is rated on 5-point Likert scale (*very dissatisfied, dissatisfied, neither, satisfied, very satisfied*). Five subscale scores for each domain, in addition to an overall FQOL score, results from the FQOL scale. Subscale scores are found by averaging the items in that domain. An overall FQOL score is found by averaging the total 25 items. This study only used the FQOL total score. Items on the FQOL measure include "My family members have friends or others who provide support" and "My family members have some time to pursue our own interests" (See Appendix G). The Beach Center FQOL scale demonstrates high internal consistency across all subscales ($\alpha = .88 - .94$). Additionally, the measure has good concurrent validity with two other related scales: the Family APGAR and the Family Resources Scale (Hu et al., 2011).

Analytic Strategy

Following data collection, all data from the measures was transferred securely from Prairie Research Associates in SPSS format (IBM Corp., 2017) to the Family and Developmental Psychopathology Lab. Data collected from coupled mothers and fathers was examined first to ensure the assumption of normality was met and outliers were removed. The assumptions were met and a paired samples *t*-test was conducted to examine if coupled mothers and fathers significantly differ in their perspectives of FQOL. Next, the following assumptions were tested: linearity, multivariate normality, absence of multicollinearity, and homoscedasticity. Simple correlations among the predictors from the correlation matrix were examined to ensure that our predictor variables are not correlated above .8 with each other (Stevens, 2012). Pearson

correlations were first used to examine the association between FQOL and parenting stress in each of mothers and fathers. This resulted in a total of two correlations. Two separate hierarchical multiple regressions (one for mothers and one for fathers) were then performed to predict FQOL in each gender. The regression analyses allowed for inclusion of coupled parents, single parents, and/or participants who did not send an email link to their partner or co-parent. The variables of child ADHD symptomology, child age, child gender, and education level were entered in the first step of the regression as a control. The predictor variables of partner status, social support and depression symptoms were entered in the last step.

Results

Participants

In total, 922 participants were recruited, and 381 parents met eligibility criteria of reaching the 80th percentile on the ADHD screening measure. One-hundred-fifty-three participants were then excluded as they scored above the cut-off on the ASD screening measure. Seventy-nine participants were then removed due to their child being older than 12 years old. Of the remaining 149 participants, 4 were removed due to being identified as outliers. Many participants were missing data on responses. A Missing Completely Random (MCAR) test was conducted to determine whether data should be analyzed using pairwise or listwise deletion. The MCAR test indicated that data was likely missing at random, chi-square (19) = 17.17, $p = .58$ for mothers and chi-square (15) = 8.87, $p = .88$ for fathers. Therefore, data was excluded pairwise to minimize the loss of power.

The current study included 145 parents of children with elevated symptoms of ADHD. Specifically, 105 identified as mothers and 40 identified as fathers. A total of 13 coupled mothers and fathers (dyads) participated. The majority of the parents reported on their son with elevated

symptoms of ADHD ($n = 82$, 56.5%). The majority of the sample was from Canada ($n = 103$, 72.0%), identified as White ($n = 107$, 74.8%), was partnered ($n = 121$, 85.8%) and had completed post-secondary education ($n = 112$, 79.4%). Of those who did respond, the majority of the participants identified as the selected child's biological parent ($n = 132$, 91.0%), 2 identified as adoptive parents (1.4%), and 1 identified as a step-parent (0.7%). Table 1 details descriptive statistics for mothers, fathers, and child characteristics.

The sample was recruited from multiple sources. The majority of the sample was recruited through social media (Facebook, Twitter; $n = 97$, 75.2%). Other sources of recruitment included webpage postings ($n = 4$, 3.1%), ADHD service organizations ($n = 5$, 3.9%), community postings ($n = 5$, 3.9%), participation in previous research ($n = 1$, .7%), University of Manitoba (U of M) subpool ($n = 7$, 5.4%), and other ($n = 10$, 7.8%).

Much of the sample elected to not respond to the question if the parents were receiving some type of parent support. Of the $n = 34$ that did respond (26.4%), $n = 22$ (64.7%) were receiving some type of informal or formal parenting support. The majority were receiving support from a Facebook parent support group ($n = 13$, 59.1%), followed by an online or in person support group ($n = 7$, 31.8%), followed by seeking help from a professional ($n = 2$, 9.1%). Participants had the option to complete the name of the type of support verbatim in a text box, however, the majority did not complete this qualitative option.

Additionally, participants were asked if their child had received any interventions for behavioural concerns. Of those participants who did respond to their child receiving treatment, $n = 36$ (34.0%), reported receiving psychosocial interventions. Participants were asked to report if their child was prescribed medications, and if they are currently taking those medications. Of the participants who did respond, $n = 70$ (56.9%) reported being prescribed medication for their

child's ADHD symptoms and $n = 57$ (82.6%) reported their child was actually taking this medication.

Of the sample obtained, $n = 43$ (33.3%) of parents rated their child's ADHD symptoms at the 80th-89th percentile, and $n = 86$ (66.7%) of parents rated their child's ADHD symptoms at the 90th-99th percentile. The 80th and 90th percentiles have been shown to be reliable scores in screening and identification of ADHD.

Based on the cut-off scores for depression symptoms, $n = 58$ (57.4%) of mothers in this study were at risk for clinical depression ($CES-D > 16$) and $n = 45$ (44.6%) of mothers likely experienced clinically significant levels of major depression ($CES-D > 20$). Furthermore, $n = 22$ (66.7%) of fathers in this study were at risk for clinical depression ($CES-D > 16$) and $n = 20$ (60.6%) of fathers likely experienced clinically significant levels of major depression ($CES-D > 20$).

Overall, this study's sample had moderate to high levels of perceived social support. Specifically, mothers on average rated their support as a 5 ($M = 5.00$, $SD = 1.33$), and fathers rated their support as a 4.99 ($M = 4.99$, $SD = 1.14$).

Regarding parenting stress, those who identified as mothers, $n = 8$ fell in the 85th-89th percentile "high" range (7.8%) and $n = 29$ fell in the 90th and up percentile "clinically significant" range (28.2%). Of those who identified as fathers, $n = 5$ fell in the 85th-89th percentile "high" range (12.5%) and $n = 15$ fell in the 90th and up percentile "clinically significant" range (37.5%). Table 2 details study variable descriptives.

Descriptive statistics were also examined for mothers and fathers who self-reported their own ADHD diagnosis in addition to their levels of overall FQOL. Mothers who self-reported their own ADHD diagnosis reported their FQOL on average as $M = 3.79$, $SD = 0.47$, and

mothers who did not report their own ADHD diagnosis reported their FQOL on average as $M = 3.75$, $SD = 0.58$. Fathers who self-reported their own ADHD diagnosis reported their FQOL on average as $M = 4.23$, $SD = 0.38$, and fathers who did not report their own ADHD diagnosis reported their FQOL on average as $M = 3.86$, $SD = 0.49$.

Research Questions

A paired samples t -test was run to compare FQOL in coupled mothers and fathers. Parents included in this analysis were those who had their partner complete the survey, linking the data between the dyads ($n = 13$). There was no significant difference in FQOL between coupled mothers and fathers, $t = -1.711$, $p < .11$, $d = .51$). Mothers reported an average of $M = 3.78$, $SD = .55$ in FQOL and fathers reported an average of $M = 4.02$, $SD = .40$ in their FQOL (see Figure 1).

Preliminary analyses were run for the regression analysis. Tables 3 and 4 show the intercorrelations among all major variables for mothers and fathers, respectively. For mothers, child ADHD symptoms, education level, and maternal depression symptoms, were all significantly and negatively correlated with mothers' perspectives of FQOL. Child gender and maternal social support were significantly and positively correlated with mothers' perspectives of FQOL, such that mothers of daughters with elevated symptoms of ADHD were associated with higher levels of FQOL. Maternal depression symptoms were significantly and positively correlated with child ADHD symptoms and negatively correlated with social support. Education level was significantly and positively correlated with partner status, such that having a partner was associated with higher levels of education, and negatively correlated with child ADHD symptoms.

For fathers, child age, educational level, and paternal social support were significantly and positively correlated to fathers' perspectives of FQOL. Educational level was significantly and positively correlated to child gender and social support, such that fathers of daughters with elevated symptoms of ADHD reported higher levels of education. Depression symptomology and education level was significantly and negatively correlated, meaning that as depression symptoms increased, level of education decreased. Similar to mothers, fathers' social support and depressive symptoms were significantly and negatively correlated.

Two hierarchical multiple regressions were conducted to predict FQOL in mothers and fathers (Tables 5 and 6). The regression analyses included mothers and fathers who were single, partnered, and those who sent the survey to their partner (dyadic data). Due to missing data, the regression for mothers included 85 participants, and the regression for fathers included 23 participants. Figure 2 depicts which participants were included in which analyses. In both regressions, parent education level, child age, child gender, and child ADHD symptoms were added in the first step as a control. The parental factors of social support, depressive symptoms, and partner status were added in the second step. In the regression for mothers, the control variables accounted for a significant amount of the FQOL variability, $R^2 = .18$, $F(4, 80) = 4.52$, $p = .002$. In this first step, child ADHD symptoms and education level were uniquely significant. The second step of this regression indicated that parental (mother) factors explained an additional 40% of the variance in FQOL over and above child factors and education level, $R^2\Delta = .40$, $F(3, 79)$, $p > .001$. In this analysis, child ADHD symptoms, maternal education level, maternal social support, and depression symptoms was uniquely significant. This model accounted for 58% of the total variance.

In the regression for fathers, the control variables accounted for a significant amount of the FQOL variability, $R^2 = .48$, $F(4, 20) = 4.12$, $p = .02$. Child age was uniquely significant in this model. The second step of this regression indicated that parental (father) factors explained an additional 17% of the variance in FQOL over and above child factors and education level $R^2\Delta = .17$, $F(3, 17) = 3.94$, $p = .01$. In this analysis, father's social support was uniquely significant. This model accounted for 65% of the total variance.

Correlations were run to examine the relationship between FQOL and parenting stress. Due to missing data, the correlation for mothers included 95 participants, and the correlation for fathers included 36 participants (see Figure 2). Mothers' parenting stress and FQOL were significantly and moderately negatively correlated, $r(93) = -.36$, $p < .001$. Fathers' parenting stress and FQOL were negatively correlated, but this result was not significant $r(34) = -.08$, $p = .66$. These results mean that as parenting stress increases, FQOL decreases in mothers of children with elevated ADHD symptoms.

Two analyses of variance (ANOVA), one for mothers and one for fathers, were run to explore differences between 3 parent groups: single parents, partnered parents who did not have their co-parent complete the survey, and partnered parents who did have their co-parent complete the survey (dyadic data). A one-way ANOVA for mothers revealed a non-significant effect of the parent group on FQOL, $F(2,93) = .164$, $p = .85$. A one-way ANOVA for fathers revealed a non-significant effect of the parent group on FQOL, $F(2,33) = 1.03$, $p = .37$.

Discussion

The current study aimed to examine differences in FQOL in coupled mothers and fathers of children with elevated symptoms of ADHD, examine predictors of FQOL in both mothers and fathers, and further examine the relationship between parenting stress and FQOL in both mothers

and fathers of children with elevated symptoms of ADHD. There were no significant differences in coupled mothers and fathers FQOL. The predictor variables of interest (partner status, social support, and depression symptomology) explained significantly more variance in the dependent variable (FQOL) above and beyond the child and parent demographic variables included in the models. Lastly, the relationship between parenting stress and FQOL was negatively correlated for both mothers and fathers, in line with previous research. However, this relationship was only significant for mothers.

Coupled mothers and fathers did not significantly differ in their levels of FQOL; however, this finding could be due to the small sample of coupled parents, rather than a lack of a true difference. This analysis was quite underpowered, raising significant concerns around Type II error. It is possible that coupled mothers and fathers do not differ in their levels of FQOL. This could be due to similar experiences in the home environment, and that coupled parents feel they have a partner to rely on, and therefore do not feel a significant difference in their perspectives of FQOL. However, although the current study had a small sample of dyadic data, the results were near significance even though this analysis was underpowered. This is important to note, as the effect size found for differences between coupled mothers and fathers was moderate. This analysis must be replicated with a larger sample of coupled parents to further explore this relationship.

The results of this study are in line with previous studies of FQOL, in regard to the overall means. The means of FQOL for mothers and fathers were similar to FQOL in ASD research (Gardiner 2015; Hsiao 2018), although slightly higher ratings were found in this study. Previous research has found overall FQOL averages at $M = 3.62$ $SD = 0.63$ (Gardiner & Iarocci, 2015) and $M = 3.50$ $SD = 0.76$ (Hsiao, 2018) for parents of children with ASD in western

society, although the average results found in the current study are slightly higher. Furthermore, these findings align with previous studies of parenting stress, indicating mothers experience more stress than fathers of children with ADHD, but this difference was not significant (Theule et al., 2012). Given the inverse relationship between parenting stress and FQOL, it makes sense that this study found slightly higher overall levels of FQOL in families of children with elevated symptoms of ADHD, when comparing and contextualizing to overall levels of FQOL in ASD research (Gardiner et al., 2015; Hsaio, 2018).

Partner status, social support, and depression symptomology explained a significant amount of variance in FQOL in both mothers and fathers. For both mothers and fathers, model 2 of the regression analysis explained a tremendous amount of the variance (58% and 65% respectively). A stronger strength of association is indicated by higher explained variance percentages. This also means that these factors can help us make better predictions about FQOL in parents of children with elevated symptoms of ADHD, and they are imperative to enhancing FQOL in families of children with elevated symptoms of ADHD. A major finding of this study was that parental social support was the strongest predictor of FQOL for both mothers and fathers. This is in line with previous research examining predictors of parenting stress in parents of children with ADHD (Theule et al., 2012). Social support in the current study measured support from family, friends, and significant others. Parents who had more social support had higher levels of FQOL in the current study. As mentioned early, social support can be formal or informal, and can be emotional, informational, or monetary. Parents who have higher levels of social support inside and outside their family unit may be able share information, resources, and emotional experiences about challenges they face, potentially reducing parenting stress and increasing FQOL. All of these forms of social support may decrease loneliness, depression

symptoms, and other mental health challenges that families of children with elevated symptoms of ADHD may face (Benson, 2012). Those with lower levels of social support may feel like they are facing these challenges alone which may increase parenting stress, and decrease FQOL.

It is also important to note that depression symptoms and social support were significantly correlated for both mothers and fathers. This is consistent with previous research (Francesco et al., 2020; Mckee et al., 2004), and underscores the importance of social support impacting mental health, and vice versa.

The last finding of this study was the relationship between FQOL and parenting stress. This study confirmed the negative relationship between FQOL and parenting stress for mothers. Although fathers' FQOL and parenting stress had a negative relationship, this finding was not significant. Again, this could be due to the small sample of fathers collected, rather than a lack of a true significant relationship. However, it is possible that fathers have different experiences than mothers regarding their perceptions of FQOL and parenting stress. FQOL and parenting stress have been shown to be related; however, parenting stress is a dyadic variable focusing on child and parent domains. FQOL on the other hand, is a broader family system variable. Fathers may be able to compartmentalize their relationship with their child, not allowing these interactions to impact their perspectives on the broader family unit.

The results of this study align with Family Systems Theory, which suggests that if something occurs to one member of the family, all members of the family unit will be affected due to their interdependence (Kerr, 2000). In the current study, coupled mothers and fathers perceived no significant differences in levels of FQOL. This may be interpreted that coupled mothers and fathers living in the same home environment experience their world similarly, due to their interconnectedness (or may have been due to low power). Their satisfaction and

fulfillment with their FQOL may be similar due to their shared experiences. Their interactions influence each others behaviours and perspectives of FQOL. On average, parents rated their parenting stress at high levels. Parents of children with elevated symptoms of ADHD levels of parenting stress may be affected when their child has elevated symptoms of ADHD.

Strengths and Limitations

A primary strength of this study was the inclusion of fathers and couples in FQOL research. This study recruited mothers and fathers, single and coupled. This is a key strength as majority of FQOL research solely examines mother perspectives, or one member of the family unit. Additionally, homogeneity of the sample stands out as an important strength. Homogeneity of the sample was attained through mindful eligibility criteria. For example, parents of children with ADHD in a specific age range were eligible, and diagnosis of high frequency co-occurring disorders, such as ASD, were not eligible. Furthermore, only parents of children who lived with the child of interest for a pre-determined amount of time were eligible to participate. Sample homogeneity is important since it helps reduce variation brought on by sociodemographic factors (Bornstein et al., 2013).

There are a few limitations of the current study. First, a smaller sample size was collected than expected. This study shed further light on the difficulty of recruiting fathers and couples in research. The current study attempted to reach fathers through specific father social media groups. The strategy for the first parent to complete the survey to send the survey directly to their partner was used also used to recruit couples. Furthermore, a guaranteed monetary incentive was provided to couples for their participation. Despite these efforts, recruiting fathers and couples remained a challenge. The smaller sample size in the current study resulted in less power, specifically for the paired samples *t*-test.

A second limitation of the current study was that the majority of the sample resided in Canada, identified as White, and likely had high socioeconomic status. Although the online nature of the study likely provided opportunity for this study to reach more participants, there was limited participation from ethnically diverse families and families from the U.S. Therefore, the results from this study can not be generalized to other populations. Additionally, the majority of the sample was partnered and had received post-secondary education. This sample likely represents a subgroup of families that may have more supports than other families, and may not be generalizable to the broader population. Accessing supports may be a barrier for single parents and those with less education for a few reasons. These parents may be working longer hours which can create challenges to scheduling appointments and transporting to services. There is also a possibility that parents with lower education levels have fewer connections and less access to knowledge of available services. Furthermore, the online nature of this study may have produced barriers for research participation. For example, participants who live in rural communities, those without access to internet or high-speed internet would likely not be able to participate in the current study. Additionally, the majority of our sample was recruited through social media postings. Parents who do not use social media may have missed the opportunity to participate in the current study due to lack of awareness. This method did not allow me to capture the experiences of these populations, narrowing my sample to subgroup of parents who likely differ from those without internet, or those who do not use social media.

The current study did not ask participants if their child's ADHD symptoms were present in a second setting. This is a limitation as the DSM criteria states that symptoms of ADHD must include symptoms in at least two settings for a diagnosis. Given the parent-report nature of the study, it is likely that parents reported on their child's symptoms in the home setting. Whether

elevated symptoms of ADHD were present in other settings, such as school or the community, is unknown. Although this is a limitation, it is possible that this reflects the assessment and diagnostic process in practical settings. For example, as described earlier, a pediatrician may provide an ADHD diagnosis based on a short interaction in the doctor's office.

Future Research

Future research should continue to recruit fathers and couples. Fathers' perspectives are important to be heard. The value and significance of father participation in research advertisements should continue to be strongly communicated in future research. Although the current study attempted to reach fathers through specific fathering groups, other avenues such as sport venues and Reddit forums may be used (Gottlieb et al., 2023). It is crucial to emphasize that fathers' time is respected and that they won't be compared to or judged against mothers.

Future research should consider gathering information from more members of the family unit. Many families value the participation of extended family in their lives. Furthermore, as society moves away from traditional family structures, it is important learn about modern families, gender and sexually diverse families, and how they experience their FQOL. This research may consider using composite scores, a single score derived from multiple pieces of information. Combining scores may enable the creation of a variable that better represents an entire family unit.

Future research should examine the Similarity of Fit hypothesis in FQOL and ADHD research. Previous research suggests fathers with ADHD symptoms may relate to their children with ADHD, leading to more positive parenting, and acting as a buffer against parenting stress (Johnston et al., 2016). Whether this relationship holds true with FQOL and parents of children with ADHD should be examined. Additionally, although this study asked self-report questions

on parent psychopathology, parent screening measures for ADHD should be used in future research. Future research should explore child-level factors that may predict FQOL in families of children with ADHD. For example, research on FQOL in families of children with ASD has found severity of disability to be a significant predictor (Wang et al., 2004). It is possible that type of ADHD presentation may impact FQOL. For example, previous research has suggested that it may be externalizing behaviours associated with ADHD, rather than ADHD symptoms themselves, that increase parenting stress (Gray, 2002; Hutchison et al., 2016). This may suggest that hyperactive/impulsive presentations may impact FQOL more so than inattentive presentations of ADHD.

Future research should consider examining the role of social support in longitudinal research. It is possible that levels of social support decline when having a child with elevated symptoms of ADHD. It is also possible that parents of children with elevated symptoms of ADHD are seeking out more social support in general. There is also a possibility that these families always had social support at this level, but higher levels of social support are important for greater FQOL. Future research should examine these possible mechanisms, given that the role of social support was an extremely important predictor of FQOL in the current study.

Implications

The current study adds to the literature by examining FQOL in parents of children with elevated symptoms of ADHD. FQOL is a construct heavily studied in other disability research, such as ASD. However, the experiences of parents of children with elevated symptoms of ADHD have been absent in this literature. Researchers should continue to find ways to engage with these families, as their perspectives on their FQOL is imperative to improve services and clinicians' knowledge.

The results of the current study may suggest that clinicians working with this population may want to consider incorporating interventions targeting parent-level factors, such as their social network, in addition to interventions for the child with elevated symptoms of ADHD. Given that the results of the current study suggest that social support can strongly predict FQOL in families of children with elevated symptoms of ADHD, clinicians, support services, and interventions should provide opportunity for these families to stay connected socially. This could be done through group interventions, connecting these families with support groups (in-person or online), or helping them facilitate and navigate barriers to their own social relationships.

Educators may play a role in finding parents ways to connect socially. For example, parents of children with elevated symptoms of ADHD can likely relate to other parents in their child's school. School educators may involve parents in a parent night where parents can come together to connect. This can include formal education, such as a guest speaker to discuss management techniques for ADHD symptoms, or could be informal and include lighthearted activities for parents. At these parent nights, child care may be provided in another room, in order for parents to have quality time to connect with other parents. Schools and other professionals should collaborate to find meaningful ways to engage these parents, in a way that is efficient, but also informative.

It is also important for clinicians to educate the community on ADHD symptoms and behaviour, highlighting the strengths of neurodiversity. With increasing awareness of ADHD symptoms, families of children with ADHD or elevated ADHD symptoms may feel less stigma, and more acceptance in their social networks. Clinicians should find ways to reach not only parents, but the general public. This could be done by presenting at a parent night at the

children's school, presenting on a highly watched news channel, or providing a talk on a podcast. Social media is another avenue to display this information creatively.

Additionally, this study recruited mothers and fathers. Although the participation from fathers and coupled parents was smaller than anticipated, this method provided a more thorough picture of the family unit, as existing research in the FQOL literature often only examines maternal perspectives. Furthermore, it builds a foundation for future research to continue to find meaningful ways to reach these populations. Given that this study is the first known study to examine FQOL in mothers and fathers of children with elevated symptoms of ADHD, it builds a foundation for future research and will shed further light on familial relationships.

Conclusions

The current study was the first known study to examine FQOL in families of children with elevated symptoms of ADHD. Given the increased parenting stress in families of children with ASD and ADHD compared to families of children with other NDDs (Craig et al., 2016), examining FQOL in families of children with elevated symptoms of ADHD provides insight into how the family unit is impacted. Understanding what factors contribute to levels of FQOL is essential to provide enhanced services that target positive family outcomes. Furthermore, this study has helped us further understand the relationship between FQOL and parenting stress. Having this understanding is valuable, and may lead to an increased use of family level measures, given the current dominance of parenting stress study in the literature. The importance of studying FQOL is essential as many child support services support a family centered approach to services and are required to demonstrate positive family outcomes (Brown et al., 2007; Vanderkerken et al., 2019). Support that aids single parents and interventions targeted to improve social support and depression symptoms, may enhance overall FQOL.

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Table 1
Demographic Characteristics

Parent Demographic Characteristics	Mothers <i>n</i> = 105		Fathers <i>n</i> = 40	
Parent Age (years and months) <i>M(SD)</i>	38.7 (6.0)		36.2 (6.4)	
	<i>n</i>	%	<i>n</i>	%
Parent self-reported ADHD diagnosis	30	29.1%	16	40%
Parent self-reported ASD diagnosis	4	3.9%	10	25%
Partner Status				
Single	17	16.7%	3	7.7%
Partnered	85	83.3%	36	92.3%
Household Income (\$)				
0-40K	11	11%	2	5%
40-60K	9	9%	4	10%
60-90K	19	19%	10	25%
90-125K	32	32%	7	20%
125K+	29	29%	16	40%
Education Level				
Less than high school	2	1.9%	0	0.0%
High School	6	5.8%	3	7.7%
Some Post-Secondary	11	10.7%	7	17.9%
Completed Post Secondary	83	81.4%	29	74.4%
Country of Residence				
Canada	81	78.6%	22	55.0%
United States	22	21.4%	18	45.0%
Ethnicity				
Asian	5	4.9%	5	12.5%
Black	2	1.9%	3	7.5%
LatinX	1	1.0%	1	2.5%
Indigenous	10	9.8%	6	15.0%
White	82	80.4%	25	62.5%
Other	2	1.9%	0	0.0%
	Total Sample			
	<i>n</i>		%	
Parent Support (Informal or Formal)				
Yes	22		64.7%	
No	12		35.3%	

Recruitment Source		
Social Media	97	75.2%
ADHD Service Organizations	5	3.9%
Community Postings	5	3.9%
Undergraduate Research Subpool	7	5.4%
Webpage Postings	4	3.1%
Previous Research	1	0.7%
Other	10	7.8%

Child Demographic Characteristics	Total Sample	
	<i>M</i>	<i>SD</i>
Child Age (years and months)	8.4	2.2
Female (<i>n</i> = 50)	8.5	2.2
Male (<i>n</i> = 82)	8.3	2.3
Non-Binary (<i>n</i> = 0)	0	0

	<i>n</i>	%
Parent Reported Child Diagnosis of ADHD	80	55.2%
ADHD Diagnosis Received From		
Family Physician	7	11.3%
Pediatrician	23	37.1%
Psychiatrist	9	14.5%
Clinical Psychologist	15	24.2%
School Psychologist	5	8.1%
Other	3	4.8%
Child co-occurring diagnoses		
None	62	49.6%
Intellectual Developmental Disorder	1	0.8%
Generalized Anxiety Disorder	13	10.4%
Social Anxiety	8	6.4%
Depression	2	1.6%
Panic Disorder	2	1.6%
Social (Pragmatic) Communication Disorder	3	2.4%
Conduct Disorder	2	1.6%
Feeding Disorder	3	2.4%
Oppositional Defiant Disorder	2	1.6%
Obsessive-Compulsive Disorder	2	1.6%
Post Traumatic Stress Disorder	2	1.6%
Specific Learning Disability	16	12.8%
Other	7	5.6%

Psychosocial Intervention Use		
Yes	36	34.0%
No	13	16.5%
Medication Prescribed		
Yes	70	56.9%
No	53	43.1%
Medication Taking		
Yes	57	82.6%
No	12	17.4%

Note. Due to missing data, percentages for maternal self-reported diagnoses were calculated based on a total sample of $n = 103$, percentages for marital status were calculated based on a total sample of $n = 102$ for mothers, and $n = 39$ for fathers, percentages for household hold income was calculated based on a total sample of $n = 100$ for mothers, percentages for education level was calculated based on a total sample of $n = 102$ for mothers and $n = 39$ for fathers, percentages for country of residence was calculated based on a total sample of $n = 103$ for mothers, percentages for ethnicity were calculated based on a total sample of $n = 102$ for mothers. Due to missing data, percentages for who diagnosed children with ADHD was calculated based on a total sample of $n = 62$, and percentages for child co-occurring diagnoses was calculated based on a total sample of $n = 125$. Due to missing data, psychosocial treatment was based on a total sample of $n = 106$. Due to missing data, medication prescribed was calculated based on a total sample of $n = 123$, and medication taking was calculated based on a total sample of $n = 69$. Total sample of child demographics is based on a total sample of $n = 132$ due to coupled parents ($n = 13$) reporting on the same child.

Table 2
Descriptive Statistics for Major Study Variables

FQOL	Mothers		Fathers	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
FQOL Total	3.78	0.55	4.02	0.4
Family Interaction	3.88	0.64	4.04	0.55
Parenting	3.77	0.64	3.91	0.80
Emotional Well-Being	3.04	0.99	3.40	1.01
Physical/Material Well-Being	4.17	0.62	4.14	0.60
Disability-Support	3.81	0.75	3.92	0.69
Parenting Stress ^a	100.93	20.90	110.42	24.20
Depression	20.78	11.48	20.88	10.83
Social Support				
Total	5.00	1.34	4.97	1.14
Significant Other	5.01	1.60	5.29	1.18
Family	4.87	1.56	4.88	1.27
Friends	5.11	1.53	4.73	1.43
		<i>M</i>		<i>SD</i>
Child ADHD Symptoms ^b		29.42		8.72

^a PSI-4-SF total score

^b Raw scores ADHD Rating Scale-IV: Home Version

Table 3

Intercorrelations between mothers' perspective of FQOL, and child, parent, and contextual variables

Variable	1	2	3	4	5	6	7	8
1. FQOL	-							
2. Child ADHD Symptoms	-.21*	-						
3. Child Age	.11	-.1	-					
4. Child Gender ^a	.18*	-.12	.04	-				
5. Education Level	-.29**	-.20*	.03	-.05	-			
6. Partner Status ^b	-.05	-.15	-.12	-.01	.27**	-		
7. Social Support	.64***	.02	.06	.07	-.11	-.01	-	
8. Depression Symptoms	-.43***	.24*	-.07	-.06	-.05	.10	-.33***	-

^aChild gender was coded “1” for boys, “2” for girls^bPartner status was coded “1” for single and “2” for partnered parents* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Intercorrelations between fathers' perspective of FQOL, and child, parent, and contextual variables

Variable	1	2	3	4	5	6	7	8
1. FQOL	-							
2. Child ADHD Symptoms	.30	-						
3. Child Age	-.37*	.01	-					
4. Child Gender ^a	.35	-.03	.06	-				
5. Education Level	.51**	.11	-.04	.45*	-			
6. Partner Status ^b	-.09	-.21	.08	.23	.05	-		
7. Social Support	.69***	.20	-.23	.21	.60**	.12	-	
8. Depression Symptoms	-0.34	.05	.13	-.21	-.39*	.19	-.41*	-

^aChild gender was coded “1” for boys, “2” for girls^bPartner status was coded “1” for single and “2” for partnered parents* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

Hierarchical multiple regression predicting FQOL from mother-reported child, parent, and contextual variables

Variables	R^2	$R^2\Delta$	B	SE	β
Step 1	.18**	.18**			
Child ADHD Symptoms			-.02	.01	-.24*
Child Age			.03	.03	.10
Child Gender ^a			.16	.12	.14
Education Level			-.27	.08	-.33**
Step 2	.58***	.40***			
Child ADHD Symptoms			-.01	.01	-.20*
Child Age			.02	.02	.06
Child Gender ^a			.11	.09	.10
Education Level			-.23	.06	-.29*
Partner Status ^b			.05	.11	.03
Social Support			.22	.03	.53***
Depression Symptoms			-.01	.00	-.22**

^aChild gender was coded “1” for boys, “2” for girls

^bPartner Status was coded “1” for single and “2” for partnered parents

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 6

Hierarchical multiple regression predicting FQOL from father reported child, parent, and contextual variables

Variables	R^2	$R^2\Delta$	B	SE	β
Step 1	.48*	.48*			
Child ADHD Symptoms			.01	.01	.27
Child Age			-.08	.04	-.37*
Child Gender ^a			.21	.19	.21
Education Level			.27	.14	.37
Step 2	.65*	.17*			
Child ADHD Symptoms			.01	.01	.16
Child Age			-.05	.03	-.25
Child Gender ^a			.28	.18	.28
Education Level			.03	.16	.04
Partner Status ^b			-.28	.29	-.17
Social Support			.23	.09	.55*
Depression Symptoms			.00	.01	.01

^a Child gender was coded “1” for boys, “2” for girls

^b Partner status was coded “1” for single and “2” for partnered parents

* $p < .05$

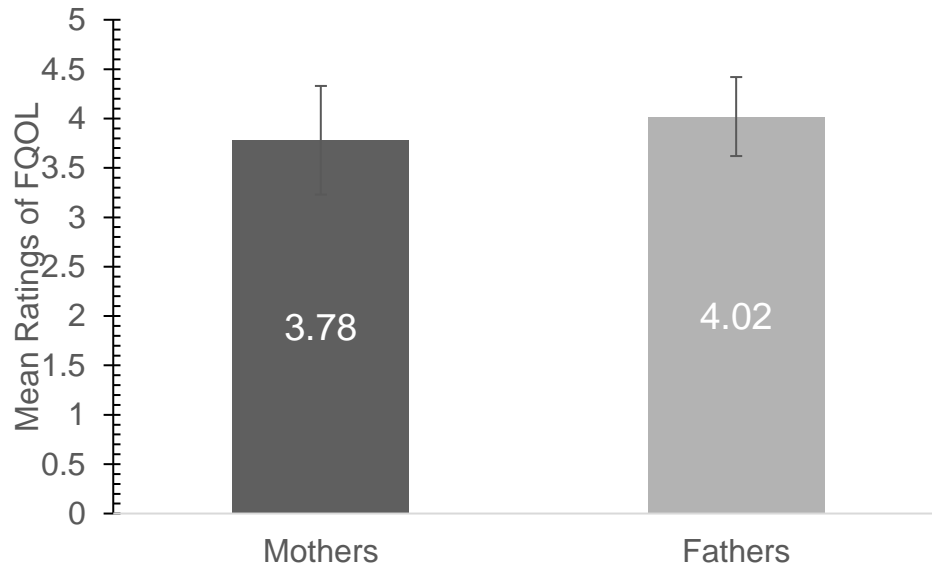


Figure 1. Mean Ratings of Family Quality of Life (FQOL) comparing coupled mothers and fathers of children with elevated symptoms of ADHD. Error bars represent standard deviations.

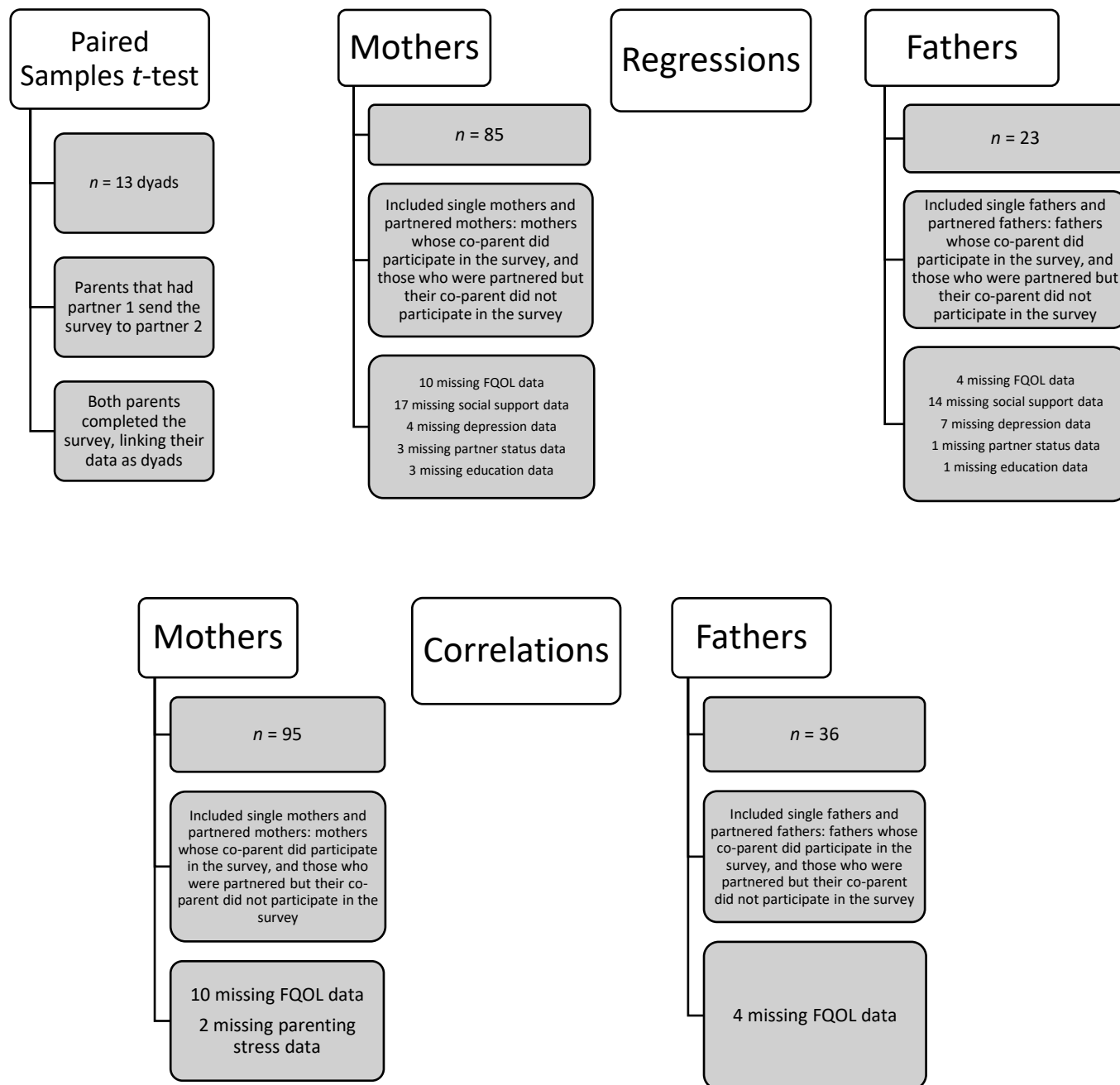


Figure 2. Flow chart visuals of participants included in each analysis.