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Special Issue

Perceptions of social support: comparisons between fathers of children with autism spectrum disorder and fathers of children without developmental disabilities

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Abstract

Background Research highlights the need for ongoing social support of mothers of children with Autism spectrum disorders (ASD). Despite recognised differences between mothers and fathers, little is known about the particular social support needs of fathers of children with ASD. Broadly, this study aimed to explore the support needs of fathers of children with ASD compared with fathers of children without a disability (W/OD) and the relation between social support, psychological distress and sociodemographic factors.
Method Drawing from a large, nationally representative community sample of children, 159 fathers of children with ASD were identified, where 6578 fathers of children W/OD were used as a comparison sample.
Results Over 70% of fathers of children with ASD reported that support was inaccessible and were significantly more likely to report so compared with fathers of children W/OD. Emotional/informational social support was the strongest social support domain associated with fathers' experiences of psychological distress.
Conclusions This study provided important insight into the social support needs of fathers of children with ASD.

Keywords ASD, fathers, predictors, psychological distress, social support

Enhancing the well-being of parents of children with a disability is recognised as an important area for disability policy (Productivity Commission 2011). Compared with parenting a child without disabilities (W/OD), parents of young children with autism spectrum disorder (ASD) often face increased challenges in their roles that can impact their well-being (Hayes and Watson 2013; Lai *et al*. 2015). Such challenges often necessitate targeted support. However, many parents acknowledge that support is typically focused on the child (e.g. managing difficult child behaviour; Davis and Gavidia-Payne 2009, Davis *et al*. 2013, Giallo *et al*. 2015, Catalano *et al*. 2018) and that more directed parent support is needed (Siklos and Kerns 2006; Smith *et al*. 2006; Cadman *et al*. 2012). Parents of children with disabilities also report being unable to access support when it is required (Maguire 2011). The need for

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ongoing mental health support for mothers of children with ASD is well established (Bromley *et al.* 2004; Siklos and Kerns 2006; Gilson *et al.* 2018; Akram *et al.* 2019); yet evidence is in its infancy for fathers.

Fathers of children with ASD are at risk of experiencing mental health problems (Seymour *et al.* 2017b). Fathering a child with ASD impacts men's social lives and relationships. In a qualitative study of five fathers of children with ASD, fathers perceived that the extent to which they could socialise was limited (Martins *et al.* 2013). Others have also found that parenting a child with ASD can be socially isolating (Altiere and Von Kluge 2008; Divan *et al.* 2012; Falk *et al.* 2014). It is well established that a lack of social support is a risk factor for stress and mental health problems in parents of children with ASD (Ekas *et al.* 2010; Falk *et al.* 2014; Akram *et al.* 2019). Social networks from which fathers can seek support are likely to help buffer the effects of life's demands (Dunn *et al.* 2001). There is an ongoing need to better understand the role of social support for fathers of children with ASD as it is a potentially modifiable factor that can be targeted for intervention.

Poor social connection is common among men in the general population, and men generally do not rate social support as an important health issue (Arbes *et al.* 2014). Men are also less likely to seek and receive support than women (Australian Institute of Health and Welfare 2011, Altiere and von Kluge, 2008). When support is sought, men are more likely to utilise functional social support (i.e. perceived availability of interpersonal relationships that serve a particular purpose; Sherbourne and Stewart 1991) from their partners or peers before seeking professional help (Smith *et al.* 2008; Paynter *et al.* 2018).

Little is known about the needs and perceptions of social support for fathers of children with ASD, along with its impact on fathers' mental health. For mothers of children with ASD, social support within the family, in particular spousal support and tangible support, is known to be important to healthy adaptation and coping (Bromley *et al.* 2004; Siklos and Kerns 2006; Ekas *et al.* 2010; Pepperell *et al.* 2016). Research has consistently found that parents of children with ASD who have greater social support networks have lower levels of depression, anxiety and anger along with improved health and quality of life (Dunn *et al.* 2001; Hastings and Johnson 2001; Boyd 2002; Crnic and Low 2002; Benson 2006; Siklos and Kerns 2006; Ekas *et al.* 2010; Meadan *et al.* 2010; Falk *et al.* 2014; Ruiz-Robledillo *et al.* 2014; Seymour *et al.* 2017a). Yet the majority of this research has focused on mothers' experiences. Evidence suggests that mothers and fathers experience different challenges while parenting a child with ASD (Hastings *et al.* 2005); however, as the majority of the existing research has focused on mothers, interventions have been developed from mothers' experiences (Broadhurst 2003; Hayes and Watson 2013; Fletcher *et al.* 2014). Unfortunately, health professionals working within family systems might unintentionally further contribute to this disparity, as fathers' needs are often seen as less of a priority (Lamb 2010; Fletcher *et al.* 2014; Pepperell *et al.* 2016). As such, current services might not adequately address the social support needs of fathers of children with ASD.

Economic and social resources of families can also influence fathers' perceptions and access of social support. A range of sociodemographic factors have been found to be associated with the extent to which individuals (including parents) access social support, including socio-economic status, age, ethnicity, relationship status, education and employment (Undén and Orth-Gomér 1989; Sherbourne and Hays 1990; Bailey *et al.* 1999; Luther *et al.* 2005; Devine *et al.* 2012; Arbes *et al.* 2014; Sharabi and Marom-Golan 2018). For parents of children with ASD, household income, parent education, child behaviour and child age were significantly related to their unmet support needs (Hartley and Schultz 2015). To help mitigate barriers for fathers of children with ASD, further insight is needed into the particular factors that impact their perceptions of social support.

Knowledge gaps have obvious negative implications for understanding how to best support fathers of children with ASD. The overall objective of the current study was to explore social support for fathers of children with ASD and to examine differences with fathers of children W/OD. Therefore, the current study aimed to (1) investigate differences in perceived access to social support and unmet support needs between fathers of children with ASD and fathers of children W/OD and (2) identify what domains of social support are associated with psychological distress for each group of fathers. Finally, we aimed to explore sociodemographic and child factors that may impact perceived access to social support for fathers of children with ASD.

Investigating these factors will help identify fathers of children with ASD at increased risk to experiencing lowered social support, having the potential to inform interventions and increase father engagement.

Methodology

Study design and sample

The present study is based on secondary data analysis of the population-based Longitudinal Study of Australian Children. Ethics approval has been granted for each wave of the study, and study design and methodology details are available elsewhere (Soloff *et al.* 2005). Ethics approval for the current study was granted by the Swinburne University Human Research Ethics Committee (SUHREC 2014/098). The Longitudinal Study of Australian Children (LSAC) consists of two cohorts. For both cohorts, a two-staged cluster sample design was used. Approximately 10% of all Australian postcodes that were stratified by state of residence and urban versus rural status were initially selected. Next, a number of children proportional to population size were randomly selected from each postcode using Australia's universal health insurance (Medicare) database, which includes over 90% of Australian infants. LSAC began in 2004 and there are currently seven biennial follow-ups.

The present study draws on data from the overlapping cohorts when children were aged 8 to 9 years [B-cohort, wave 5 (2012) and K-cohort, wave 3 (2008)]. Fathers of children at this age were the focus as children have likely received a diagnosis of ASD and the shock of this diagnosis has eased (Centers for Disease Control and Prevention 2014). This is also a time when families are engaged with formal schooling and intervention services.

Preliminary data analysis has not revealed any significant cohort effects (Australian Institute of Family Studies 2011); thus, it was possible to combine the two. From wave 1, retention rates were 80% (B-cohort, wave 5) and 87% (K-cohort, wave 3; Cusack and Defina 2013). Retention rates were lower for children whose parents had lower educational attainment, were from Indigenous and non-English-speaking backgrounds and were living in rental properties (Mission 2007).

The sample for the current analyses comprised biological or adoptive fathers of: children diagnosed with an ASD (B-cohort n = 92; K-cohort n = 67; N = 159) and children W/OD (B-cohort n = 3195; K-cohort n = 3383; N = 6578). Fathers of children W/OD were identified if their child (1) did not have ASD; (2) did not have a long-term medical condition or disability (e.g. learning disability and hearing impediment) and (3) the long-term disability did not restrict their everyday functioning (all items based on primary caregiver report).

Measures

Demographic details were collected (i.e. fathers' age, country of birth and indigenous status) along with family characteristics (i.e. family composition, number of children in the household and socio-economic position). *Socio-economic position* was based on the *Socio-Economic Indexes for Areas* (SEIFA; Australian Bureau of Statistics 2013). The SEIFA is based on population census data from 2011 and the SEIFA Index of Relative Socio-economic Disadvantage was used. This is based on variables including income, educational attainment and employment according to local government areas. Each family is given an index score based on their postcode. The SEIFA is standardised and constructed so that the mean score is 1000 (SD = 100); where scores below 1000 are indicative of an area being relatively disadvantaged (Australian Bureau of Statistic 2013).

Demographics regarding the study child were also collected and included age, gender, English as main language and attending school (yes/no). The primary caregiver (usually the mother) reported on whether the study child had 'any ongoing conditions' from which parents could select 'Autism, Aspergers, or other autism spectrum'; respondents then indicated the severity of their child's ASD from 'Mild, Moderate, or Severe'. Diagnosis of ASD based on parent report has been found to be valid (Daniels *et al.* 2012). Prevalence estimates based on parent report have also been highly consistent with the Centre of Disease Control and other prevalence data (Blumberg *et al.* 2013).

Perceived availability of social support was measured using an abbreviated version of the MOS Social Support Survey (Sherbourne and Stewart 1991) that assesses the perceived availability of functional social support. The scale consists of four main support dimensions: emotional/informational (e.g.

expressions of understanding, advice and guidance; four items); tangible (e.g. aid and assistance; four items); affectionate (e.g. expressions of love and affection; three items) and positive social interaction (e.g. availability to do fun things; three items). There is also an overall support index score, comprising 14 items. Fathers were asked 'How often are each of the following kinds of support available to you if you need it?' and items were answered on a scale ranging from one (*none of the time*) to five (*all of the time*). The subscales and index score are derived by taking the mean of the scale items; higher scores represent greater perceived available support. The survey has high internal consistency, reliability and internal validity for all items (Sherbourne and Stewart 1991). Cronbach's alpha for fathers of children with ASD and fathers of children W/OD were 0.86 and 0.96, respectively.

Support need. Fathers were asked how often they felt they needed help/support from someone but were unable to get it. This item was rated on a 4-point scale, ranging from one (*Very Often*) to four (*Never*). Due to small sample size within the 'Very Often' category for fathers of children with ASD, the measure was dichotomised; where 0 = *Never* and 1 = *Sometimes to Very Often*. Higher scores reflected fathers' feeling as though they could not access support when needed. This single item measure has been used in previous studies (Maguire 2011).

Psychological distress was measured using the Kessler-6 (K6; Kessler *et al.* 2003) which is a broad measure of experiences of non-specific distress (e.g. behavioural, emotional, cognitive and psychophysiological manifestations) over the past 4 weeks. The K6 consists of six-items scored on a 5-point scale, where higher scores indicate greater perceived psychological distress. The K6 has strong psychometric properties and is often used as a screening tool for clinical mood and anxiety disorders (Kessler *et al.* 2003). Cronbach's alpha for fathers of children with ASD and fathers of children W/OD were 0.97 and 0.86, respectively.

Data analysis

Data were analysed using SPSS version 24.0 (IBM SPSS Statistics 2016). First, descriptive statistics and exploratory data analyses (e.g. missing data and statistical assumptions) were conducted. There were large differences in sample sizes for fathers of children with ASD and fathers of children W/OD. The distribution of scores on the variables of interest were similar, as evidenced by the non-significant Levene's Tests for Equality of Variances, indicating that the variances were equal for both groups of fathers. Second, independent samples *t*-tests and chi-square analyses were used to identify any differences in sociodemographic characteristics between fathers of children with ASD and fathers of children W/OD that would be used as covariates in subsequent analyses. Third, to assess for differences in perceived availability and need of social support between fathers of children with ASD and fathers of children W/OD (aim 1), bivariate logistic regression and analysis of covariance, unadjusted and adjusted for covariates (e.g. socio-economic, child gender, child schooling, child language, fathers' country of birth and number of children in household) were conducted. Fourth, to explore the association between perceived availability of social support and psychological distress for both groups of fathers W/OD (aim 2), bivariate correlations and multiple regression analyses were performed. These were stratified in order to identify what aspects of social support were particularly important for fathers of children with ASD. Finally, to identify sociodemographic (i.e. father age, education, employment status, country of birth, language, Aboriginal or Torres Strait Islander status, socio-economic position and number of children in household) and child factors (i.e. child gender, schooling, language, ASD severity and age at diagnosis) associated with perceived availability of social support for fathers of children with ASD (aim 3), correlations were computed.

All analyses were conducted with complete cases only and with missing data. The results for analyses using multiple imputation were pooled across 20 parallel imputed datasets incorporating variables that influence missing responses (i.e. fathers' country of birth, Aboriginal or Torre Strait Islander status, family composition, number of children in family, father age and SEIFA) along with all analysis variables (i.e., MOS Social Support, support need and K6). The complete case and imputed analyses produced similar estimates; thus, only the imputed data are presented. Please note, multiple imputation in SPSS only provides unstandardised B, *t* and significance estimates for pooled data.

Results

Sample characteristics

Of the 4085 children in the B-cohort (wave 5), 131 (3.2%) were identified as having a diagnosis of ASD and data were available for 92 fathers. For the K-cohort, 89 (2.1%) of the 4331 children (wave 3) were identified as having a diagnosis of ASD and data were available for 67 fathers. In the B-cohort (wave 5), 3932 (96.3%) were identified as children W/OD and data were available for 3195 fathers. In the K-cohort (wave 3), 4199 (96.9%) children W/OD were identified and data were available for 3383 fathers.

Demographic characteristics of fathers and their study children are provided in Table 1. Independent sample *t*-tests and chi-square analyses revealed that fathers of children with an ASD had significantly less children in the household compared with fathers of children W/OD; they were also significantly more likely to be born in Australia and speak English as their main language. Children diagnosed with ASD were significantly more likely to be male; speak English as their main language and were significantly less likely to attend formal schooling, compared with children W/OD. These group differences were adjusted for as covariates in subsequent analyses.

Missing data

Missing data were less than 30% across the variables of interest and approximately 40% of cases had at least one missing data point on the variables of interest. Missing data were addressed using multiple imputation in SPSS 24.0 (IBM SPSS Statistics 2016).

Table 1 Demographic characteristics (*n*; %)

Variable	**Fathers of children with ASD (*n* = 159)**	**Fathers of children W/OD (*n* = 6578)**	***P*-value**
Age in years (*M, SD*)	41.22 (6.07)	42.09 (5.80)	0.060
Australian born	131 (82.4)	4971 (75.6)	0.047*
Aboriginal or Torres Strait Islander	3 (1.9)	88 (1.3)	0.553
English as main language	148 (93.1)	5735 (87.2)	0.027*
Neighbourhood disadvantage[†] (*M, SD*)	1011.38 (62.52)	1017.38 (63.61)	0.240
Education			0.542
Year 12 or above	132 (83.0)	5335 (81.1)	
Employment status			0.351
Full/part time	154 (96.9)	6267 (95.3)	
Not in paid employment	5 (3.1)	311 (4.7)	
Family structure – two parent family	157 (98.7)	6511 (99.0)	0.767
Number of children in household (*M, SD*)	2.42 (0.85)	2.66 (1.00)	0.003*
Father as primary caregiver	9 (5.7)	298 (4.5)	0.500
Fathers' psychological distress[‡] (*M, SD*)	3.89 (3.97)	2.74 (3.08)	0.000**
	Children with ASD (*n* = 220)	Children W/OD (*n* = 8131)	
Gender – Male	176 (80.0)	4090 (50.3)	0.000**
Age in years (*M, SD*)	8.30 (0.46)	8.33 (0.47)	0.510
English as main language	210 (95.5)	7358 (90.5)	0.013*
Attends school	215 (97.7)	8088 (99.5)	0.000**
Age of ASD diagnosis in months (*M, SD*)	61.37 (28.12)	–	
Severity of ASD			
Mild	127 (57.7%)	–	
Moderate	78 (35.5%)	–	
Severe	15 (6.8%)	–	

[†] SEIFA Index of Social Disadvantage.

[‡] Complete case data presented, fathers of children with ASD *n* = 115 and fathers of children W/OD *n* = 4791.

*Significant at $P < 0.05$.

**Significant at $P < 0.001$.

ASD, Autism Spectrum Disorder; W/OD, without disability.

These data were not missing completely at random; however, the theory of multiple imputation does not suggest that the missing at random assumption must be met (Schafer and Graham 2002).

Fathers' perceived availability of social support and social support needs

The mean scores and results for the independent samples *t*-tests for each perceived availability of social support subscale, along with the total social support mean, are provided in Table 2. The Levene's Tests for Equality of Variances was not significant; therefore, it can be assumed that the variances were equal for both groups of fathers. Unadjusted and adjusted analyses revealed no significant differences between the groups on their perceived availability of social support in each domain. The logistic regression results (Table 2) examining the differences in perceived need for social support revealed that fathers of children with ASD were significantly more likely to report that they '*Very Often* to *Sometimes*' needed support but were unable to get it, as compared with fathers of children W/OD.

Relationships between perceived availability of social support and psychological distress

The correlation and multiple regression analyses examining the association between the social support domains and fathers' psychological distress for fathers of children with ASD and fathers of children W/OD are presented in Table 3. The regression analysis revealed that for fathers of children with ASD, *emotional/informational support* was the only predictor of psychological distress. For fathers of children W/OD, *emotional/informational support*, *tangible support* and *positive social interaction* were significant predictors of fathers' psychological distress.

Factors associated with perceived availability of social support for fathers of children with ASD

Bivariate correlations between social support domains and potential sociodemographic (i.e. fathers age, country of birth, English as main language, aboriginal or Torres Strait Islander status, education, employment, SEIFA and number of children) and child (i.e. ASD severity, child age at diagnosis, child sex and language) predictor variables were explored

Table 2 Comparisons between fathers of children with ASD and fathers of children W/OD on perceived availability of social support and perceived need for support

	Mean		**Mean difference (95% confidence interval)**	
	Fathers of children with ASD *n* = 159	**Fathers of children W/OD *n* = 6578**	**Unadjusted**	**Adjusted**
Emotional/informational	3.42	3.56	−0.18 [−0.39–0.02]	−0.17 [−0.36–0.04]
Tangible	4.04	4.11	−0.10 [−0.26–0.07]	−0.08 [−0.25–0.09]
Affectionate	4.05	4.11	−0.08 [−0.26–0.10]	−0.07 [−0.25–0.11]
Positive social	3.95	4.17	−0.12 [−0.29–0.05]	−0.10 [−0.28–0.07]
Total social support	3.84	4.04	−0.12 [−0.28–0.04]	−0.11 [−0.27–0.05]
			Odds ratio (95% confidence interval)	
Needed support but could not get it, *n* (%)				
Very often–Sometimes	115 (72.3)	4172.9 (63.4)	**0.66 [0.56–0.79]****	**0.65 [0.54–0.78]***
Never	44 (27.7)	2405.1 (36.6)	Ref	Ref

Adjusted model controlled for SEIFA, child sex, child schooling, father country of birth, father language and number of children; pooled *SD* not provided in SPSS.

*Significant at $P < 0.05$.

**Significant at $P < 0.001$.

ASD, Autism Spectrum Disorder; W/OD, without disability.

Table 3 Relationship between perceived availability of social support and psychological distress among fathers of children with ASD and fathers of children W/OD

	Psychological distress (K6)							
	Fathers of children with ASD (*n* = 159)				**Fathers of children W/OD (*n* = 6578)**			
	r	**B**	***t***	***P***	***r***	**B**	***t***	***P***
Emotional/informational	−0.47***	**−1.20**	**−3.51**	**<0.001**	−0.33***	**−0.51**	**−8.85**	**<0.001**
Tangible	−0.39***	−0.10	−0.20	0.838	−0.29***	**−0.25**	**−3.59**	**<0.001**
Affectionate	−0.40***	−0.57	−0.97	0.433	−0.31***	−0.15	−1.95	0.052
Positive social	−0.38***	−0.04	−0.07	0.947	−0.33***	**−0.55**	**−6.35**	**<0.001**

SPSS pooled results provided for unstandardised B, *t* and significance.
***Significant at $P < 0.001$.
ASD, Autism Spectrum Disorder; W/OD, without disability.

for fathers of children with ASD. None of the current sociodemographic or child factor were significantly associated with the MOS social support domains.

Discussion

Using a population-based sample of Australian families, this is one of the few known studies to explore the unique social support needs specifically for fathers of children with ASD. Our findings highlighted that 72% of fathers of children with ASD reported that they felt that they needed support but could not get it, compared with 63% of fathers of children W/OD. Relatedly, for fathers of children with ASD, emotional/informational support was the only social support domain associated with their experiences of psychological distress. No child or sociodemographic factors were associated with emotional/informational, affectionate, tangible or positive social support domains for fathers of children with ASD.

Access to social support

The first aim was to assess the perceived availability of social support and unmet support needs of fathers of children with ASD compared with fathers of children W/OD. The results showed no significant differences between the two groups on any of the social support domains or total social support. These results are similar to those of Maguire (2011) who found no differences in perceived availability of social support between fathers of children with a broad range of developmental disabilities and fathers of children W/OD. While it appears that fathers of children with ASD require similar types of social support as fathers of children W/OD in their parenting role, there *were* differences in access to support. Fathers of children with ASD were significantly more likely to report that they were unable to get support when they needed it, as compared with fathers of children W/OD. Suggesting that the needs of fathers of children with ASD are likely to go unmet, fathers of children with ASD might find it difficult to seek, ask for, or accept support when it is most required (Arbes 2012; Giallo *et al.* 2017). These fathers might also prioritise the needs of other family members before their own (Paynter *et al.* 2018), place greater importance on other health and social issues or lack the skills to initiate conversations regarding their needs (Arbes 2012). These experiences might be exacerbated by general gender norms, where social disconnection and being stoic are common, normalised experiences in men (Arbes *et al.* 2014). Fathers of children with ASD might also face practical barriers to seeking the support they require when needed, including financial pressures and time limitations.

Perceived availability of social support and psychological distress

The second aim was to explore the association between perceived availability of social support and fathers' mental health. All social support domains were significantly associated with fathers' reports of psychological distress. Perceiving that there is no one whom fathers could share the emotional load, get assistance for everyday responsibilities, feel loved or valued and/or relax and unwind with was associated with increased psychological distress. Connection to others is a well-known protective factor for mental health issues and an important area for health promotion (Dunn *et al*. 2001; Hastings and Johnson 2001; Boyd 2002; Crnic and Low 2002; Benson 2006; Siklos and Kerns 2006; Ekas *et al*. 2010; Meadan *et al*. 2010; Falk *et al*. 2014; Ruiz-Robledillo *et al*. 2014; Seymour *et al*. 2017a). Further investigation revealed that for fathers of children with ASD, emotional/informational support was the strongest predictor of their experiences of psychological distress. While, for fathers of children W/OD, a broader range of social support (i.e. emotional/informational, tangible and positive social interaction) predicted their mental health. Fathers of children with ASD who perceived that they had others with whom they could share their worries and concerns with and get advice from were less likely to report mental health difficulties. Emotional and informational social support might be particularly salient for fathers of children with ASD as they continue to navigate and come to terms with the enduring nature of their child's disability. Parents of children with ASD continue to experience stigma and negative social reactions to their child's behaviour (Kinnear *et al*. 2016; Broady *et al*. 2017), which might cause fathers to socially withdraw and rely on the emotional support of their partners to a greater extent than fathers of children W/OD. Research indicates that fathers of children with ASD heavily rely on the support of their partner over support from friends or extended family (Paynter *et al*. 2018). Furthermore, fathers of children with ASD continually seek information and guidance on how to best support their child along with guidance on how to manage their family circumstances (Davys *et al*. 2017). These findings highlight the value of providing emotional and informational support to fathers of children with ASD.

Sociodemographic and child factors associated with perceived availability of social support

The final aim was to explore the association between sociodemographic and child factors and perceived availability to different types of social support for fathers of children with ASD. Interestingly, none of the current sociodemographic or child factors were significantly associated with positive social interactions, emotional/informational, tangible or affectionate support. There are likely to be additional factors that influence perceived availability of social support for fathers raising children with ASD. There is a need to investigate a more exhaustive list of potential factors that might influence perceived availability to social support for fathers of children with ASD (e.g. the role of masculinity, self-efficacy, workplace conditions and help-seeking attitudes). This research will help inform our understanding of how to increase fathers' social connectedness when parenting a child with ASD.

Study strengths, limitations and future directions

A major strength of the current research was the use of a sample of fathers of children with ASD drawn from a population-based study. These fathers were not recruited from clinical samples where families are accessing professional support for their children or themselves, as is often the case with disability research. The current study also solely focused on the experiences of fathers of children with ASD, a recognised under-researched and under-supported group (Braunstein *et al*. 2013). Additionally, fathers' experiences were not embedded or minimised against those of mothers, which are often more pronounced.

Inherent with any research, there are limitations. The measures in the original study were not specifically designed for parents of children with ASD. For example, information on whether other children in the same family had a disability was not collected during the current waves. Additionally, clinical confirmation of the study child's ASD diagnosis and severity were not verified. Further research is also needed regarding fathers' experiences and perceptions of formal support and services, including their specific needs and the associated barriers and facilitators to professional service use. Additionally, the current measure of social support need relied on one, self-report item; the use of a more robust measure is warranted for future research. This study also did not investigate fathers' preferences for receiving support nor their satisfaction. A more holistic picture of fathers' informal and formal social support use will enable better engagement of fathers, along with the development of interventions tailored to their unique needs.

A further limitation was the relatively small sample size of fathers of children with ASD. There was an under-representation of fathers from vulnerable backgrounds (e.g. non-English-speaking background, single parent families and Indigenous parents), and the majority of fathers were in a couple relationship. The current sample is likely limited by the nature of the data, in which mostly mothers reported on child characteristics; thus, fathers with partners were more likely to be included in the current sample. It is likely that the current findings do not accurately capture the experiences of fathers parenting children with ASD from diverse social backgrounds. Fathers from these backgrounds might already be particularly vulnerable to social isolation and lack of social support due to social and economic disadvantage.

Finally, the current research utilised cross-sectional data. Current associations are likely to be bidirectional in nature, for example, psychological distress is likely to affect fathers' perceptions of social support. There are also likely to be changes in social support needs over time, along with transactional associations between social support, mental health and demographic characteristics. Research investigating how fathers' experiences of social support change over different developmental periods (e.g. when their child transitions into adolescence) would provide valued contribution towards how best to support men across their fatherhood journey.

Implications and conclusions

This study provided important insight into the social support needs of fathers of children with ASD, and how this experience differs from fathering a child W/OD. Family and health services struggle to effectively engage fathers, often failing to provide services tailored to their needs or focusing on the needs of the child or mother (Broadhurst 2003; Berlyn *et al.* 2008; Fletcher *et al.* 2014). Yet social isolation is common in parents of children with ASD and fathers are also vulnerable. The current research highlights that fathers of children with ASD require increased social support within their unique parenting context. One avenue for intervention might be strengthening the couple relationship and helping partners better understand how emotional, tangible and social supports impact mental health in both mothers *and* fathers. Providing parents with early psychoeducation about the importance of social support within the child's assessment and diagnosis process is likely to have long-term impacts on parent mental health and family functioning.

There is also a need for family and health services to stress the importance of asking, seeking and accepting different types of social support, specifically while working with fathers of children with ASD. The importance of social support, especially emotional and informational support, for fathers' mental health needs to be acknowledged. Clinicians can actively check-in with fathers about their satisfaction or need for support and enhance fathers' help-seeking capacity and sense of agency. Promoting social support may be more acceptable to men, compared with seeking and receiving formal support. Family and health services can encourage fathers to strengthen their social networks, providing them with the tools to initiate and maintain social connections, especially during difficult times. Social support has the potential to protect fathers from experiencing mental health difficulties, which is important for promoting child and overall family health and well-being. Given that parents with strong, supportive social networks are less likely to come into contact with professional support services (Broadhurst 2003), strengthening fathers' social support and promoting their mental health may reduce some of the demand on an already overburdened and underfunded mental health care systems.

Further research is needed to better understand changes in social support overtime, along with fathers' preferences and satisfaction with both informal and formal social support. This study has provided a broad overview on fathers' experiences of social support while parenting a child with ASD. Greater social support is required for fathers of children with ASD that is easily accessible in times of need. Health services, policy and health promotion programmes need to better understand and accommodate the unique support needs of fathers, particularly those parenting a child with ASD.

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