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Viewpoints on what is important to maintain relationship satisfaction in couples raising a child with autism spectrum disorder

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ABSTRACT

Background: Despite the challenges associated with raising a child with autism spectrum disorder (ASD), many couples maintain satisfying relationships. However, it is not clear which factors couples prioritise as most important to this positive adaptation.
Methods: This study used Q-methodology to explore the viewpoints on factors most important to maintaining relationship satisfaction from the perspective of those experiencing it. Data from 43 caregivers raising a child with ASD were analysed using by-person varimax rotation factor analysis.
Results: Two key viewpoints were identified: 1) Building effective communication through openness, honesty and conflict resolution, and 2) Building a strong partnership by sharing parenting responsibilities.
Conclusion: Couples should be supported to strengthen communication processes and work in partnership to raise their child with ASD through family-centred interventions aimed at promoting relationship satisfaction.

1. Introduction

Children are more likely to develop functional life skills when they grow up in well-functioning families, in which parental relationship satisfaction plays a crucial role (Benson, 2013; Cummings & Merrilees, 2010; McCoy, George, Cummings, & Davies, 2013). Couples raising a child with autism spectrum disorder (ASD) report both challenging and rewarding experiences, impacting on their relationship in various ways (Hock, Timm, & Ramisch, 2012; Markoulakis, Fletcher, & Bryden, 2012; Myers, Mackintosh, & Goin-Kochel, 2009; Sim, Cordier, Vaz, & Falkmer, 2016). Parenting can place strain on any relationship (Doss, Rhoades, Stanley, & Markman, 2009; Keizer & Schenk, 2012; Mitnick, Heyman, & Smith Slep, 2009); however, couples raising a child with ASD are at a greater risk of poor relationship satisfaction (Sim et al., 2016). This risk is sustained over the child's transition to adulthood (Hartley,

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Barker, Baker, Seltzer, & Greenberg, 2012); a time when other parents typically experience an upturn in relationship satisfaction (Barker et al., 2011; Keizer & Schenk, 2012). Despite this risk, many couples report maintaining a stable, strong and satisfying relationship with their partner (Marciano, Drasgow, & Carlson, 2015; Markoulakis et al., 2012; Sim, Cordier, Vaz, & Falkmer, 2017; Sim, Cordier, Vaz, Parsons, & Falkmer, 2017).

A broad range of factors have been posited to influence relationship satisfaction in couples raising a child with ASD. A systematic review found the most consistent risk factors to be challenging child behaviour, parental stress and poor psychological wellbeing, and it acknowledged the interrelatedness of these variables in a theoretical model (Sim et al., 2016). The model also proposed two protective factors supported by the review findings: positive appraisal and social support. The impact of a stressful event can be buffered through positive appraisal and several studies have demonstrated that parents who perceive the challenges associated with ASD as manageable and meaningful, and who held optimism about the future, were more likely to experience relationship satisfaction (Ekas, Timmons, Pruitt, Ghilain, & Alessandri, 2015; Kaniel & Siman-Tov, 2011; Lickenbrock, Ekas, & Whitman, 2011; Sikora et al., 2013; Sim et al., 2016; Siman-Tov & Kaniel, 2011). Psychological support can also reduce stress, improve psychological wellbeing, and contribute to relationship satisfaction (Benson & Kersh, 2011; Benson, 2012; Ekas et al., 2015; Hall & Graff, 2011; Siman-Tov & Kaniel, 2011; Smith, Greenberg, & Seltzer, 2012). However, the value of psychological support may vary according to its source. For example, support from a partner has been shown to be particularly important to couples raising a child with ASD (Brobst, Clopton, & Hendrick, 2009; Hall & Graff, 2011; Sim et al., 2016). Expanding upon the concept of partner support, a recent study investigated dyadic coping in couples raising a child with ASD and found that satisfied couples were more likely to engage in positive dyadic coping than dissatisfied couples (Sim, Cordier, Vaz, Parsons et al., 2017). Dyadic coping is conceptualised as more than merely partner support; it also involves coping strategies used jointly by couples in response to a common stressor such as relaxing together or collaborative problem solving (Bodenmann, 1997).

There are two studies that provide preliminary insight into the ways in which couples maintain relationship satisfaction when raising a child with ASD. The first applied concept mapping methodology to group statements derived from a focal interview question and found that both mothers and fathers identified two factors integral to marital success: communication and shared ideas about the relationship (Ramisch, Onaga, & Oh, 2013). However, this study was limited by a small sample that included parents who reported relationship dissatisfaction and their experiences were not differentiated from parents who reported satisfaction. Extant literature posits that relationship satisfaction and dissatisfaction are two separate, yet related, dimensions requiring independent study (Fincham & Rogge, 2010). More recently, a phenomenological study explored factors important to maintaining relationship satisfaction in a small sample of couples who were screened for satisfaction using the Couple Satisfaction Index (Sim, Cordier, Vaz, Falkmer et al., 2017). Findings revealed an overall essence of togetherness, encapsulated in three main themes of 1) shared beliefs (including acceptance, focus on the positives and existential meaning), 2) teamwork (to nurture the family, self and relationship), and 3) shared experiences (including communication, humour and emotional support). However, these themes are broad and future research is required to prioritise their importance for the purpose of identifying focal areas of support for couples.

To extend upon the existing research literature, the current study sought to identify, prioritise and compare the views of satisfied couples raising a child with ASD, in response to the following research question: What factors are considered *most* important to maintaining relationship satisfaction? This question is important as relationship satisfaction may be a valuable protective resource for couples managing the pervasive and enduring challenges associated with ASD (Benson & Kersh, 2011; Garcia-Lopez, Sarria, Pozo, & Recio, 2016; Hartley, Barker, Seltzer, Greenberg, & Floyd, 2011; Lickenbrock et al., 2011; Siman-Tov & Kaniel, 2011; Weitlauf, Vehorn, Taylor, & Warren, 2014). Furthermore, the quality of the couple relationship can influence child social development and behaviour (Camisasca, Miragoli, & Di Blasio, 2016; McCoy, Cummings, & Davies, 2009; McCoy et al., 2013), and these are salient outcome areas given the characteristics of ASD. Relationship satisfaction may also help optimise therapeutic outcomes in children with ASD, which can be influenced by parental stress and coping (Burrell & Borrego, 2012; Karst & Van Hecke, 2012; Osborne, McHugh, Saunders, & Reed, 2008). Parents “serve as the gatekeepers to their children’s access to services” (Mackintosh, Goin-Kochel, & Myers, 2012, p. 58) and are increasingly expected to be heavily involved in therapy (Burrell & Borrego, 2012; Karst & Van Hecke, 2012; Mackintosh et al., 2012; Stahmer & Pellecchia, 2015). Thus, maintaining parental wellbeing is imperative if long-term therapeutic caregiving is to be sustained and the couple relationship may be a valuable source of support given its association with parental psychological health and coping in parents raising a child with ASD (Sim, Cordier, Vaz, Parsons et al., 2017; Sim et al., 2016).

Ascertaining the perspectives of couples who report satisfaction is vital to understanding the factors for success and offers a strength-based approach that contrasts against the large body of research that focuses on relationship difficulties. Such an approach attempts to understand couples in terms of strengths and recognises that people can discover their own solutions and positively adapt in response to challenging circumstances (Saleebey, 1996). This understanding can inform meaningful interventions aimed at strengthening the relationship of couples raising a child with ASD.

2. Methods

To answer the research question, Q-methodology was adopted as it is the only method that can systematically reveal and holistically understand a series of shared viewpoints on what is of prioritised importance given a certain topic (Brown, 1980; Watts & Stenner, 2005), in this case relationship satisfaction. In its simplicity, Q-methodology can be considered an inverted form of factor analysis, whereby correlations between persons are investigated rather than correlations between characteristics or test measures (Watts & Stenner, 2012b, 2005). People are treated as the variables that load onto emergent factors, while the test measures are treated as the sample (Watts & Stenner, 2012b, 2005). This process requires a different form of data collection involving a Q-sort

whereby individuals are required to rank order a set of statements (Q-set) relative to one another on a grid (Watts & Stenner, 2012b). Importantly, Q-methodology requires participants to decide what is meaningful from their perspective, resulting in a single set of relative evaluations derived from direct experience rather than postulation (Brown, 1980). In this way, it is participant, rather than researcher, driven. Q-methodology supports the strengths-based approach to the current study by enabling couples who have recent lived experience of relationship satisfaction to express their opinions regarding the factors they have discovered as most important to their positive adaptation. Q-methodology has previously been successfully used in autism research and with parents of children with a disability (Chee et al., 2015; Falkmer et al., 2015; Scott, Falkmer, Girdler, & Falkmer, 2015; Thompson et al., 2016). The five distinct phases pertaining to Q-methodology were followed: 1) developing the 'concourse', 2) identifying the Q-sort statements, 3) administering the Q-sort, 4) factor analysis, and 5) interpretation of factors (Watts & Stenner, 2012b).

2.1. Developing the concourse

The concourse is the "universe of opinions" about the topic in question (Brown, 1980, p. 61) and lays the foundation for the development of the sample of statements to be rank ordered (Simons, 2013). For the current study, a wide range of perspectives on maintaining relationship satisfaction were gathered by integrating findings from a systematic review investigating relationship satisfaction in couples raising a child with ASD (Sim et al., 2016) with findings from in-depth semi-structured interviews with couples with a child with ASD who reported being satisfied in their relationship (Sim, Cordier, Vaz, Falkmer et al., 2017). Specifically, statements were drawn from findings from individual research studies, synthesised review results, and interview quotes to ensure the entire opinion domain related to the research question was captured. In that sense, Q-methodology had the advantage of enabling participants to consider and prioritise a broad and balanced coverage of factors important to maintaining relationship satisfaction, including many factors they may not have considered through interview alone.

2.2. Identifying the Q-sort statements

By integrating findings from a systematic review with interview data, ninety statements were developed which were considered broadly representative of the concourse, or entire opinion domain. The statements were deliberated and refined through a collaborative process between two of the authors with efforts made to ensure every possible statement from the sources were collated. The authors, both autism researchers with experience in Q-methodology, had been immersed deeply in the systematic review and interview data prior to developing the initial set of statements.

The ninety statements were then pilot tested by a sample of four individuals in a cohabiting relationship and raising a child with ASD. The purpose of the piloting was to reduce the number of statements by eliminating irrelevant or repetitive statements and to rephrase, as necessary, for increased clarity and understanding. To check if the opinion domain was comprehensively covered, the pilot participants were asked if they felt there were any important statements missing. No missing statements were identified. This process resulted in a total of 54 statements, which were refined and checked for readability in consultation with four of the authors who have expertise in both autism research (including parenting a child with ASD and relationship satisfaction) and Q-methodology. Generally, Q-sets of between 40 and 80 statements are deemed satisfactory (Stainton Rogers, 1995).

2.3. Administering the Q-Sort

Participants were purposively recruited from the Curtin Autism Research Group participant list, a list of more than 300 families with a child with ASD who agreed to be contacted about ASD research. Families were initially contacted via telephone or email, depending upon their preferred method of contact recorded, and caregivers were invited to participate in a cross-sectional study if they met three inclusion criteria: 1) being primary caregivers for a child with ASD; 2) living with the child with ASD; and 3) cohabiting with their partner (Sim, Cordier, Vaz, Parsons et al., 2017). During the cross-sectional study, participants were screened for relationship satisfaction using the Couple Satisfaction Index-32 (CSI; Funk & Rogge, 2007). The CSI is a standardised 32-item self-report scale with mostly a six-point response format. It has demonstrated strong construct and convergent validity, and good internal consistency ($\alpha = 0.94$). Responses were summed with total scores ranging from 0 to 161; the minimum cut-off score for relationship satisfaction being 104.5. Only caregivers who scored in the range for relationship satisfaction were contacted to participate in the current study. Relationship dissatisfaction was an explicit exclusion criterion. Upon expressing interest, caregivers were sent an information letter and instructions for completing the Q-sort. They were given the option of completing the Q-sort using online software developed for the Curtin Autism Research Group at Curtin University in Western Australia (Waters, 2013) or by filling in a Microsoft Word document version emailed or posted (with responses either handwritten or typed). Participants were required to give informed consent using a forced response function before being able to proceed with the online Q-sort. For participants completing the Word document version, written consent was obtained via a participant information and consent form which was posted or emailed with the Q-sort activity. All data were de-identified during the data collection process and stored securely. Ethics approval was obtained from Curtin University Human Research Ethics Committee in Western Australia (OTSW-05-2014).

After giving informed consent, participants were asked to carefully read the 54 statements and then sort them according to their relative importance to maintaining relationship satisfaction. This was done by placing each statement in one of the 54 squares on a normally distributed sorting grid, which were arranged in columns scaled from least important (-6) to most important (+6) as shown in Fig. 1. Participants were advised that their subjective viewpoint was being sought and there were no right or wrong answers. Before submitting the completed Q-sort, participants had the opportunity to rearrange statements until they were satisfied with their

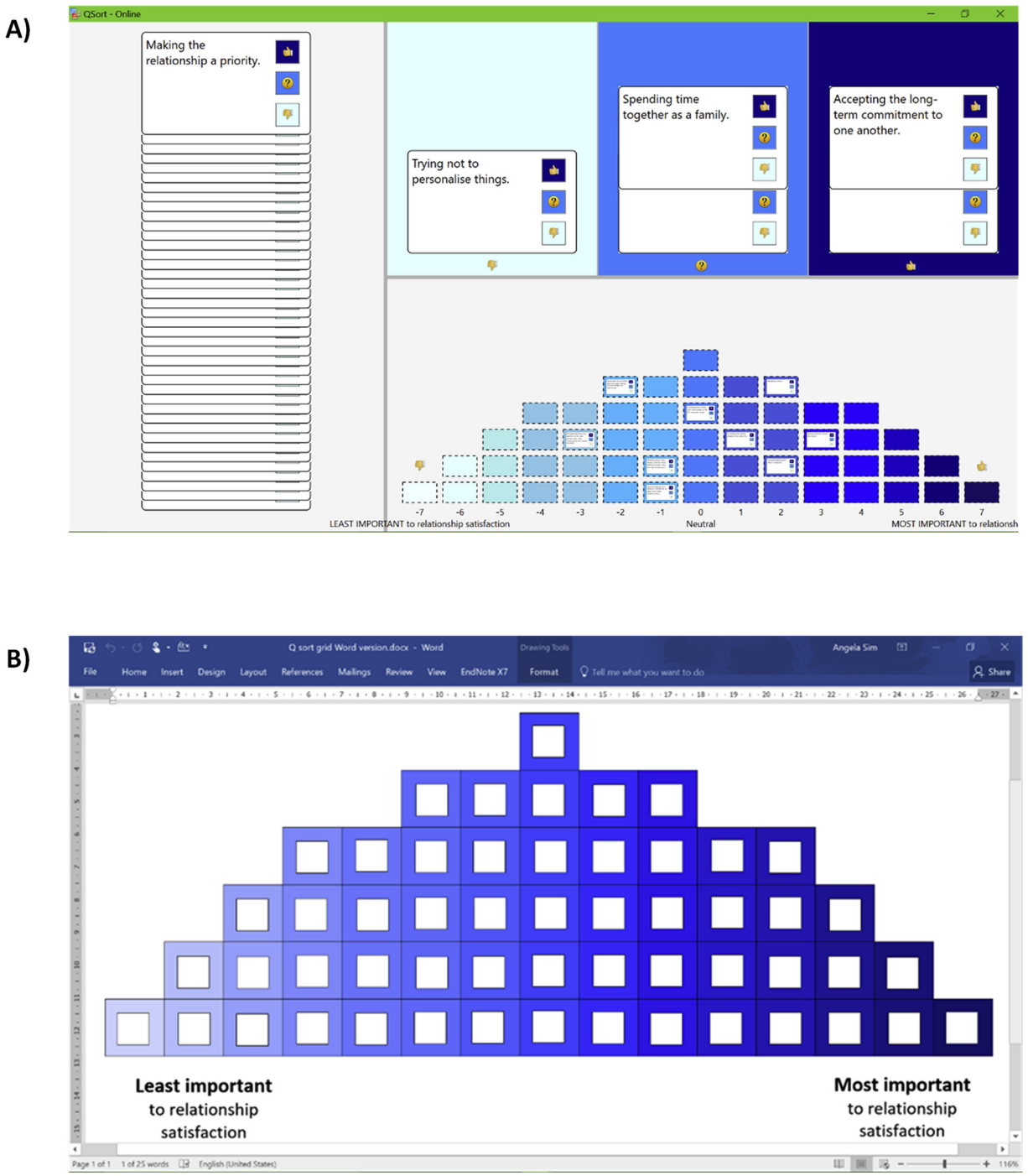

Fig. 1. Q-sort online and Word document versions of the sorting grid. (A) Screen shot of participant sorting statements onto the grid using the online program. (B) Example of the Q-sort grid normal distribution.

placement relative to one another. Upon submission of the completed Q-sort, participants were asked to complete a series of survey questions, including providing an explanation for their choice of statements as most important and if there were any statements that they felt were missing. Demographic information was then collected about the participant (gender, length of cohabitation, number of children with and without an ASD diagnosis, relationship to child with ASD) and the child with ASD (gender, age, presence of comorbid conditions).

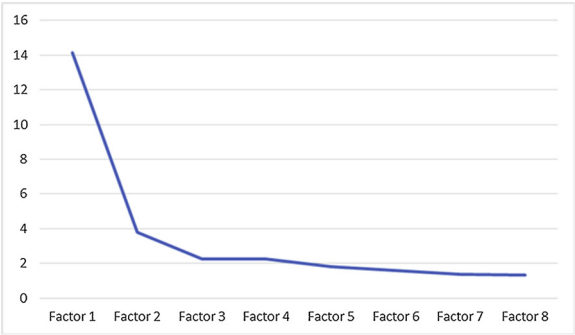

Fig. 2. Scree plot of factor eigenvalues.

2.4. Factor analysis

The Q-factor analytical process involves identifying factors that have correlations with a large magnitude between participants, thus reducing the subjective views down to a few factors that represent a shared viewpoint (Watts & Stenner, 2012b). A total of 43 completed Q-sorts were analysed using the PQMethod 2.35 software package (Schmolck, 2014). Q-sorts completed on the Word document version were entered into the online software program so that all sorts could be exported directly into PQMethod. Factors were initially extracted using principle component analysis, resulting in eight unrotated factor matrices (the default number in PQMethod). To determine the number of factors to be retained, four criteria were consulted, as recommended (Watts & Stenner, 2012c). The first, the Kaiser-Guttman criterion, states that factors considered for extraction should have an eigenvalue of 1.00 or more (Guttman, 1954; Kaiser, 1960). All eight factors met this criterion. Humphry's rule was the second criterion applied, where the multiplication of the two highest loadings for each factor should be greater than twice the standard error, which was calculated to be 0.28. All eight factors complied with this rule. The third criterion required the acceptance of factors with at least two significantly loading Q-sorts. Factors 1, 2, 4, 5, 7 and 8 met this criterion. Lastly, a scree plot test was performed whereby the eigenvalues were plotted and visually examined for factors displayed prior to the plot plateauing (Fig. 2). Results supported the retention of two or three factors.

Based on the findings after applying the above criteria, two by-person varimax rotation factor analyses were conducted, one for two factors and the other for three factors. This process produced an overall rotated solution that maximised the amount of study variance explained and ensured each Q-sort had a high factor loading in relation to only one factor (Watts & Stenner, 2012d). Both sets of results were examined and it was determined that a two-factor solution gave the greatest meaning to the research question, explaining 41% of the common variance. This decision was based on the scree plot in addition to the three-factor correlation scores indicating a closer relationship between factors one and three (0.63) than between factors two and three (0.40), suggesting that factor three was merely subordinate to factor one. Factor arrays were then created to define and contrast the two rotated factors. A factor array is the configuration of a Q-sort that represents the viewpoint of a particular factor (Watts & Stenner, 2012d).

2.5. Interpretation of factors

Interpreting the factors involved generating viewpoints, which were labelled in consultation with experts in autism research and Q-methodology. The viewpoints were studied with regard to defining features, similarities and differences in the factors considered important to maintaining relationship satisfaction. A crib sheet was developed to assist in a holistic factor interpretation by promoting engagement with every item in a factor (Watts & Stenner, 2012a). Consensus statements (those that are agreed upon, that is, not ranked as significantly different) and distinguishing statements (those that are not agreed upon, that is, ranked as significantly different) were also consulted to compare the viewpoints and make a sensible description of them.

3. Results

Participant characteristics are presented in Table 1. A total of 43 caregivers completed the Q-sort (including 12 couples). This is consistent with recommendations of 40–60 participants (Stainton Rogers, 1995), although some researchers claim that highly effective Q-sort studies can be conducted with far fewer individuals (Watts & Stenner, 2005). The majority of participants were mothers (60%) and all but one participant (a step-father) were biological parents of the child with ASD. Most participants had only one child with ASD (89%). The mean age of the child with ASD was 13 years (SD = 4), with 84% being male and 6%, 7% and 13% having comorbid cognitive, psychological and medical conditions, respectively. The median couple relationship length was 19 years (range = 10-32 years). All participants scored above the cut-off for relationship satisfaction according to the CSI (104.5) with the median score being 137 (range = 105–158). The Socio-Economic Indexes for Areas (SEIFA) were used to determine socio-economic status (Australian Bureau of Statistics, 2011). These indexes rank each area in Australia according to relative advantage and disadvantage. The vast majority of participants (90%) lived in areas ranked above the 50% percentile, with 53% in areas ranked above the 75th percentile, suggesting high socio-economic advantage. There were no Australian Aboriginal or Torres Strait Islander people

Table 1
Participant characteristics.

Demographic Information	Participants (n = 43)	Percentage (%)
Parent gender		
Male	17	40
Female	26	60
SEIFA quartiles		
1 (0–25th percentile)	2	5
2 (26th–50th percentile)	2	5
3 (51–75th percentile)	16	37
4 (76th–100th percentile)	23	53
Marital Status		
Married	42	98
Cohabiting	1	2
Length of marriage/cohabitation (years)		
Mean(SD)	18(5)	N/A
Median	19	N/A
Range	10-32	N/A
Couple Satisfaction Index-32 Scores		
Mean(SD)	135(14)	N/A
Median	137	N/A
Range	105-158	N/A
Relationship to child with ASD		
Biological father	16	37
Biological mother	26	61
Step father	1	2
Total number of children		
1	2	5
2	29	67
3	7	16
4	5	12
Total number of children with ASD		
1	38	89
2	4	9
3	1	2
Gender of Child with ASD		
Male	36	84
Female	7	16
Age of Child with ASD (years)		
Mean (SD)	13(4)	N/A
Median	12	N/A
ASD Diagnosis		
Comorbid cognitive impairment		
No	37	86
Yes	6	14
Comorbid psychological condition		
No	36	84
Yes	7	16
Comorbid medical diagnosis		
No	30	70
Yes	13	30
Q-sort completion time (minutes)		
Mean(SD)	21(11)	N/A
Median	16	N/A
Range	5-60	N/A

Note. Some families had more than one child with ASD, however they were asked to report on only one child; N/A = not applicable.

amongst the participants.

The two factors included in this analysis were defined by 42 participants (98%) with a single Q-sort not loading significantly on either factor. See Table 2 for the factor loadings. A list of each statement and the corresponding rankings and z-scores across each factor can be seen in Table 3.

Table 2
Factor loadings (Bold numbers indicate Q sorts loading highly on each factor).

Characteristics: Gender, marital status, length of cohabitation (years)		Factor 1	Factor 2
Female, married, 10		**0.40**	0.30
Female, married, 32		**0.40**	0.18
Male, married, 22		**0.53**	0.33
Female, married, 12		**0.68**	0.38
Female, married, 22		**0.76**	0.16
Male, married, 13		**0.65**	0.39
Female, married, 15		**0.65**	0.12
Male, married, 20		**0.58**	0.50
Female, cohabiting, 19		**0.54**	0.42
Female, married, 22		**0.86**	−0.06
Female, married, 10		**0.41**	0.05
Male, married, 23		**0.49**	0.36
Male, married, 21		**0.52**	0.18
Male, married, 15		**0.86**	0.08
Male, married, 15		**0.53**	0.39
Female, married, 11		**0.72**	−0.24
Male, married, 13		**0.70**	0.18
Female, married, 15		**0.49**	0.28
Female, married, 12		**0.60**	0.35
Female, married, 26		**0.29**	0.19
Female, married, 20		**0.48**	0.38
Male, married, 19		**0.70**	0.28
Female, married, 19		0.25	**0.58**
Male, married, 25		0.11	**0.28**
Female, married, 25		0.36	**0.47**
Female, married, 19		0.33	**0.60**
Female, married, 22		0.20	**0.40**
Female, married, 12		0.27	**0.66**
Female, married, 22		0.46	**−0.53**
Female, married, 25		0.32	**0.35**
Female, married, 18		−0.20	**0.80**
Female, married, 25		0.14	**0.53**
Male, married, 22		0.13	**−0.59**
Male, married, 18		0.36	**0.63**
Male, married, 22		0.33	**0.39**
Male, married, 17		0.39	**0.42**
Female, married, 25		0.47	**0.58**
Male, married, 11		0.49	**0.49**
Male, married, 12		0.33	**0.54**
Male, married, 10		0.06	**0.75**
Female, married, 23		0.37	**0.52**
Female, married, 16		0.45	**0.54**
Female, married, 13		0.09	0.06
Explained variance (%)		23	18
Number of defining variables		22	20
Factor score correlations	**Factor 1**	0.51	1.00
	Factor 2	1.00	0.51

3.1. Viewpoint 1: building communication

Viewpoint 1 was defined by 22 caregivers and explained 23% of the variance (Table 4). This viewpoint recognised the importance of love and friendship to maintaining relationship satisfaction (statement 23: rank +6; statement 2: rank +6) characterised by open and honest communication that included the sharing of feelings and being able to resolve conflict (statement 8: rank +6; statement 4: rank +5; statement 5: rank +5). Maintaining stability in the family environment was also highly valued (statement 7: rank +5). This viewpoint was captured in the open-ended response: “Having open and honest communication and being able to talk like friends and not have conflict are so important! They are foundations to any relationship”.

3.2. Viewpoint 2: building partnerships

Viewpoint 2 was defined by 20 caregivers and explained 18% of the variance (Table 5). As with viewpoint 1, this group of caregivers prioritised love and friendship as most important to maintaining relationship satisfaction (statement 23 rank +6; statement 2: rank +5), however, in Viewpoint 2, love and friendship appeared to lay the foundation of a long-term commitment to a partnership which was both prioritised and enjoyed (statement 50: rank +4, statement 40, rank +6; statement 54: rank +6). This partnership was exemplified by teamwork in which parenting responsibilities were shared and respect was paid to each other’s

Table 3
Q-set statements, factor arrays of viewpoints, rankings and z-scores.

Statements	Viewpoints	
	1 ranking (z-score)	2 ranking (z-score)
1. Following cultural traditions.[a]	−6 (-2.29)*	−6 (-2.62)
2. Being friends.	6 (2.19)**	5 (1.24)
3. Putting the child/children's needs first.	2 (0.45)**	−4 (-0.86)
4. Sharing your feelings with each other.	5 (1.69)**	−1 (-0.17)
5. Being able to resolve conflict.	5 (1.55)**	−1 (-0.24)
6. Sharing the household responsibilities.	3 (0.71)**	−2 (-0.49)
7. Maintaining stability in the family environment.	5 (1.49)**	0 (0.00)
8. Having open and honest communication.	6 (1.80)**	3 (0.87)
9. Focusing on the positives.	3 (0.74)**	−2 (-0.37)
10. Following religious practices.[b]	−6 (-2.46)	−6 (-2.54)
11. Providing practical help to one another.	4 (0.96)**	−2 (-0.266)
12. Making an effort to socialise	−4 (-0.88)**	−6 (-1.927)
13. Being thankful of what you have.	2 (0.63)**	−3 (-0.74)
14. Having financial stability.	3 (0.86)**	−3 (-0.50)
15. Maintaining social networks.	−2 (-0.36)**	−5 (-1.34)
16. Dealing with challenges as they arise.	4 (1.06)**	−2 (-0.24)
17. Accepting that all relationships have ups and downs.	1 (0.27)**	−3 (-0.64)
18. Focusing on personal growth.	−3 (-0.73)**	−5 (-1.30)
19. Spending time together without the children.[a]	2 (0.36)*	2 (0.68)
20. Working through challenges together.[b]	4 (0.98)	4 (1.07)
21. Trying to make things better.	−1 (-0.20)**	−4 (-1.22)
22. Accessing individual, couple or family therapy.[a]	−5 (-1.31)*	−5 (-1.70)
23. Loving each other.[b]	6 (1.83)	6 (1.98)
24. Having common interests.[b]	−3 (-0.76)	−3 (-0.68)
25. Having realistic expectations about the way life is.[b]	1 (0.11)	−1 (-0.10)
26. Understanding each other's strengths and limitations.	3 (0.64)**	−1 (-0.16)
27. Looking after yourself.[b]	−1 (-0.32)	0 (-0.08)
28. Appreciating each other's sense of humour.	0 (-0.11)**	2 (0.69)
29. Working towards the same family goals.	2 (0.31)**	3 (0.78)
30. Having confidence in your parenting ability.[b]	−1 (-0.20)	0 (-0.07)
31. Working as a team.[a]	4 (0.96)*	5 (1.31)
32. Maintaining intimacy.	1 (0.23)**	4 (1.02)
33. Making meaning of your situation based on personal beliefs.	−6 (-1.91)**	−4 (-0.93)
34. Having professional support for your child/children with autism.	1 (0.10)**	−2 (-0.30)
35. Balancing the needs of all of your children, your partner and yourself	0 (0.08)**	2 (0.72)
36. Together taking ownership of the family's welfare.	−1 (-0.26)**	2 (0.64)
37. Appreciating the small things in life.[b]	0 (-0.02)	1 (0.05)
38. Helping each other to put challenges in perspective.	−1 (-0.43)**	1 (0.06)
39. Making sure each other feels appreciated.[b]	1 (0.23)	1 (0.44)
40. Making the relationship a priority.	0 (-0.03)**	6 (1.32)
41. Being optimistic about the future.[b]	−1 (-0.29)	0 (0.01)
42. Acknowledging each other's opinions.	0 (-0.06)**	4 (0.93)
43. Being able to do things that you enjoy doing, not just things that you have to do	−3 (-0.56)**	1 (0.30)
44. Thinking about how things could be done differently when they don't go as planned.	−5 (-1.26)**	−1 (-0.22)
45. Acknowledging how difficult it would be to raise your child/children alone.[b]	−4 (-1.04)	−4 (-1.15)
46. Managing stress.	−2 (-0.32)**	2 (0.65)
47. Accepting the family situation for what it is.	−4 (-0.95)**	0 (0.03)
48. Prioritising the family over other areas of life (for example, work).	−2 (-0.42)**	3 (0.72)
49. Recognising that your partner is the only person who truly understands the family situation.	−4 (-0.99)**	1 (0.60)
50. Accepting the long-term commitment to one another.	−2 (-0.43)**	4 (1.18)
51. Spending time together as a family.	2 (0.36)**	3 (0.83)
52. Sharing the parenting responsibilities.	−3 (-0.54)**	5 (1.19)
53. Trying not to personalise things.	−5 (-1.41)**	0 (-0.08)
54. Enjoying each other's company.	0 (0.02)**	6 (1.58)

Note: *Distinguishing statements significant at $p < 0.05$. **Distinguishing statements significant at $p < 0.01$. [a]Consensus statements non-significant at $p > 0.01$. [b]Consensus statements non-significant at $p > 0.05$.

opinions (statement 31: rank +5, statement 52: rank +5; statement 42: rank +4). Viewpoint 2 was articulated in the open-ended responses: "Being friends and loving each other is the best foundation for dealing with ASD as a team on a day-to-day basis" and "It is not fair to load one person with the humdrum day to day jobs; equity is necessary for each person to feel valued".

3.3. Similarities between the viewpoints

There were 15 consensus statements for which there were no statistically significant differences across both viewpoints. Both

Table 4
Viewpoint One "Building Trust".

Statements		Viewpoint	
		1	2
2	Being friends	**6**	5
8	Having open and honest communication	**6**	3
23	Loving each other	**6**	6
4	Sharing your feelings with each other	**5**	−1
5	Being able to resolve conflict	**5**	−1
7	Maintaining stability in the family environment	**5**	0
22	Accessing individual, couple or family therapy	**−5**	−5
44	Thinking about how things could be done differently when they don't go as planned	**−5**	−1
53	Trying not to personalise things	**−5**	0
1	Following cultural traditions	**−6**	−6
10	Following religious practices	**−6**	−6
33	Making meaning of your situation based on personal beliefs	**−6**	−4

Table 5
Viewpoint Two "Building Partnerships".

Statements		Viewpoint	
		1	2
23	Loving each other	6	**6**
40	Making the relationship a priority	0	**6**
54	Enjoying each other's company	0	**6**
2	Being friends	6	**5**
31	Working as a team	4	**5**
52	Sharing the parenting responsibilities	−2	**5**
15	Maintaining social networks	−2	**−5**
18	Focusing on personal growth	−3	**−5**
22	Accessing individual, couple or family therapy	−5	**−5**
1	Following cultural traditions	−6	**−6**
10	Following religious practices	−6	**−6**
12	Making an effort to socialise	−4	**−6**

groups of caregivers agreed that loving each other was the most important characteristic of relationship satisfaction (23). They also both agreed that working as a team to negotiate challenges (31, 20), spending time together without the child/children (19) and making sure each other felt appreciated (39) were of importance to relationship satisfaction. Of slightly less importance were having realistic expectations, appreciating the small things in life and holding optimism for the future (25, 37, 41), as were looking after yourself, parenting self-efficacy and having common interests (27, 30, 24). Both groups of caregivers also shared agreement on characteristics of (relative) least importance to relationship satisfaction, which included following religious and cultural traditions; accessing individual, couple or family therapy; and acknowledging how difficult it would be to raise a child with ASD alone (1, 10, 22, 45).

4. Discussion

The current study identified two key viewpoints highlighting the factors most important to maintaining relationship satisfaction from the perspective of couples raising a child with ASD who reported being satisfied in their relationship with their partner. The findings hold clinical significance as they identify prioritised areas of support that can inform interventions focussed on strengthening the couple relationship. Both viewpoints highlighted the importance of love and friendship to the relationship; however, the viewpoints differed with regard to how this was achieved. Specifically, viewpoint 1 *Building communication* encapsulated the opinion of the majority of participants that effective communication was most important to relationship satisfaction. Conversely, viewpoint 2 *Building partnerships* captured the views of participants who felt that working as a team was most important to maintaining relationship satisfaction.

Caregivers who shared the viewpoint *Building communication* ranked the strategies of open and honest communication, sharing of feelings and conflict resolution highly. Communication processes have long been touted as vital to maintaining relationships in couples with and without children and are a key component of many relationship interventions (Karney & Bradbury, 1995). However, effective communication may be especially salient when raising a child with ASD, due to the need to share information about the child's complex support needs and coordinate caregiving (Hock et al., 2012; Sim, Cordier, Vaz, Falkmer et al., 2017). Yet, parents may experience challenges with social interactions due to their own ASD characteristics and psychological conditions, which are highly prevalent in this group (Hodge, Hoffman, & Sweeney, 2011; Piven & Palmer, 1999). Furthermore, the extraordinary stress

often experienced by caregivers (Hayes & Watson, 2013) can trigger negative interactions and undermine communication (Bodenmann, 2005). In fact, a population-based study found that couple communication declined by 40% under stressful conditions (Bodenmann, 1995). Couples can be supported in improving communication processes that help bring clarity to challenges and enable informed decision making and collaborative problem solving (Hock et al., 2012; Sim, Cordier, Vaz, Falkmer et al., 2017; Walsh, 2003). Being open, honest and freely able to share feelings can bring couples closer and create an atmosphere of trust, empathy and tolerance of differences (Walsh, 2003). Additionally, extant research shows that conflict management not only promotes positive couple interactions and satisfaction in the relationship, it can also minimise challenging behaviours in children (Camisasca et al., 2016; Cummings & Merrilees, 2010; Harrist & Ainslie, 1998). This is particularly relevant to couples raising a child with ASD as challenging behaviours have been consistently shown to be a major stressor that can impact on relationship satisfaction (Benson & Kersh, 2011; Hartley et al., 2012; Herring et al., 2006; Lecavalier, Leone, & Wiltz, 2006).

Participants who shared the viewpoint *Building partnerships* confirmed the opinions of couples interviewed in a previous study that a sense of unity was vital to maintaining relationship satisfaction (Sim, Cordier, Vaz, Falkmer et al., 2017). The current study extended on these findings by identifying the most important strategies for achieving a strong partnership, which included prioritising the relationship and sharing the parenting responsibilities. Often, families reorganise themselves around the child with ASD which, as a consequence, may lead to neglect of other areas of family life (Hoogsteen & Woodgate, 2013). Furthermore, the demands of caregiving can be emotionally and physically exhausting, leaving caregivers with little time and energy to invest in their relationship (Corcoran, Berry, & Hill, 2015; DePape & Lindsay, 2015). However, couples can maintain relationship satisfaction by making a conscious effort to nurture their relationship, as one caregiver in a previous study explained: "As much as the therapy and the specialists and the medical appointments are important, your relationship is also important. If you want to stay married, you need to work on it" (Sim, Cordier, Vaz, Falkmer et al., 2017, p. 15). Couples achieve this in different ways; some formalise couple time with date nights, while others will ensure they get time together in the evenings when the children are in bed, even if it is just watching television together (Sim, Cordier, Vaz, Falkmer et al., 2017). Regardless, there was consensus in the current study that couple time without the children was valuable to maintaining relationship satisfaction.

The findings of the present study suggest that working as a team to share the responsibilities of parenting a child with ASD can lead to a closer relationship. In support of this claim, a study using a 7-day diary found that parents who were more satisfied with the time their partner spent in childcare reported a higher level of relationship satisfaction (Hartley, Mihaila, Otalora-Fadner, & Bussanich, 2014). Yet, caregiving demands can result in role specialisation, whereby the mother reduces or quits paid work to assume the role of primary caregiver, while the father engages in paid employment, often increasing hours to accommodate for decreased income (Hartley et al., 2014). As relationship satisfaction is affected by *dissatisfaction* with the division of childcare, rather than the actual roles assumed (Ehrenberg, Gearing-Small, Hunter, & Small, 2001; Lavee, Sharlin, & Katz, 1996), caregivers can be provided with support to identify meaningful ways to share parenting responsibilities within the context of their lives. Previous research has shown that even caregivers with traditional role divisions can experience a sense of teamwork in raising their child with ASD (Sim, Cordier, Vaz, Falkmer et al., 2017).

Families and, indeed, the ASD population itself, are highly heterogenous. Each family must find its own pathway through challenges, fitting their situation, personal strengths and resources (Walsh, 2003). As such, professionals need to individualise their support and offer flexibility of interventions. However, the present study highlighted two very important viewpoints of caregivers who reported relationship satisfaction and offers insight into priority areas to strengthen when supporting couples. These include building communication and partnerships. Clinicians can explore these key areas when identifying strategies to address relationship goals. Moreover, they can encourage open and honest communication by modelling this behaviour in interactions with families and promote parenting partnerships by offering flexible service delivery that enables both parents to attend appointments (for example, appointments outside of standard working hours, home visits and child minding facilities). Relationship education can be incorporated into other parent education forums to raise awareness of the importance of effective communication and other dyadic coping strategies, such as sharing parenting responsibilities and finding couple time to nurture the relationship.

Couples who are experiencing relationship difficulties could be referred to specialist services, such as family and couple therapists and relationship programmes. There are many relationship education programmes already in existence that focus on communication, recognising it to be amongst the most important predictors for relationship success (Karney & Bradbury, 1995); however, recent studies have shown that a focus on dyadic coping (such as teamwork) is vital in helping reduce stress that can impede communication (Bodenmann & Shantinath, 2004). The current study adds support to this, suggesting that caregivers of children with ASD could benefit from programmes that include both these components. One such programme that could be evaluated and modified for use with couples raising a child with ASD is the Couples Coping Enhancement Training (CCET) (Bodenmann & Shantinath, 2004; Bodenmann, Pihet, Shantinath, Cina, & Widmer, 2006; Bodenmann, Hilpert, Nussbeck, & Bradbury, 2014). CCET has been shown to have positive outcomes in the general population, not only with regards to relationship satisfaction, but also improved psychological health and parenting and child behaviours (Bodenmann & Shantinath, 2004; Bodenmann et al., 2006, 2014).

4.1. Limitations

There are a number of limitations to the current study. As Q-methodology results are interpreted qualitatively and do not draw statistical inferences, they have limited transferability. It is not the participants that need to be representative of the population, it is the Q-sort, as this is considered the sample in Q-methodology. While efforts were made to ensure rigour in the development of the Q-sort so that the Q-statements were as broadly representative of the concourse as possible, participants highlighted some factors they felt were important to relationship satisfaction that were missing. These included faithfulness, appropriate funding, acceptance that

the child's ASD is not anyone's fault, and having a close family. These factors should be considered in future research.

It must also be reiterated that the viewpoints discussed are merely the factors *most* important to relationship satisfaction by the majority of caregivers in this study; all of the statements are important to some degree (according to previous research) and generalisations must be made with caution as every family has different needs at different stages of its lifespan. The participants in this study were all married or cohabiting for at least 10 years, with the mean age of the child with ASD being 13 years. Additionally, the majority of participants were deemed to be of high socioeconomic status, and it is not clear from this study whether couples without this socioeconomic advantage share the same views regarding factors important to relationship satisfaction. Further research is warranted to determine if the viewpoints presented in the current study are shared by parents of younger or adult children; newly diagnosed children; in relationships of shorter duration; from different cultures; with different family compositions (e.g., same sex couples and blended families); and with a lower socioeconomic status.

Furthermore, participants were recruited from a large database of families who agreed to be contacted regarding research projects, creating a potential selection bias towards parents who were interested in research and had the time and energy to participate. However, as the participants in this study were purposively recruited according to relationship satisfaction, this skew towards parents who may represent those who have positively adjusted was not perceived as a major limitation.

4.2. Summary and conclusions

Although parents raising a child with ASD are at risk of decreased relationship satisfaction (Sim et al., 2016), many couples experience positive adjustment (Marciano et al., 2015; Markoulakis et al., 2012; Sim, Cordier, Vaz, Falkmer et al., 2017; Sim, Cordier, Vaz, Parsons et al., 2017). These couples demonstrate resourcefulness, having discovered ways to negotiate challenges and maintain satisfying relationships, and their insights can provide meaningful support to other couples and inform relationship interventions. Thus, the current study used Q-methodology to capture the viewpoints of couples who reported relationship satisfaction to determine the factors most important to its maintenance. Findings revealed two key viewpoints; *Building communication* (through openness, honesty, sharing of feelings and resolving conflict) and *Building partnerships* (through the sharing of parenting responsibilities and nurturing the relationship). These constitute positive dyadic coping, which has been shown to be one of the strongest predictors of relationship satisfaction in the general population (Falconier, Jackson, Hilpert, & Bodenmann, 2015), as well as parents raising a child with ASD (Garcia-Lopez et al., 2016; Sim, Cordier, Vaz, Parsons et al., 2017). Thus, the findings from the current study suggest that relationship satisfaction may be promoted in couples raising a child with ASD in ways similar to other parents, however, it is recommended that interventions still be evaluated for their effectiveness in the context of raising a child with ASD as parents face unique caregiving challenges that have been shown to impact on the quality of couple interactions and, ultimately, relationship satisfaction.

Conflicts of interest

The authors declare that there are no conflicts of interest.

References

Australian Bureau of Statistics (2011). *Socio-economic indexes for areas* (27 March 2018) Retrieved fromhttp://www.abs.gov.au/websitedbs/censushome.nsf/home/seifa.

Barker, E. T., Hartley, S. L., Seltzer, M. M., Floyd, F. J., Greenberg, J. S., & Orsmond, G. I. (2011). Trajectories of emotional well-being in mothers of adolescents and adults with autism. *Developmental Psychology, 47*(2), https://doi.org/10.1037/a0021268 551-551.

Benson, P. R. (2012). Network characteristics, perceived social support, and psychological adjustment in mothers of children with autism spectrum disorder. *Journal of Autism and Develomental Disorders, 42*(12), 2597–2610. https://doi.org/10.1007/s10803-012-1517-9.

Benson, P. R. (2013). Family influences on social and play outcomes among children with ASD during middle childhood. *Research in Autism Spectrum Disorders, 7*, 1129–1141. https://doi.org/10.1016/j.rasd.2013.06.003.

Benson, P. R., & Kersh, J. (2011). Marital quality and psychological adjustment among mothers of children with ASD: Cross sectional and longitudinal relationships. *Journal of Autism and Developmental Disorders, 41*, 1675–1685. https://doi.org/10.1007/s10803-011-1198-9.

Bodenmann, G. (1995). A systemic-transactional conceptualization of stress and coping in couples. *Swiss Journal of Psychology, 54*(1), 34–49.

Bodenmann, G. (1997). Dyadic coping: A systemic-transactional view of stress and coping among couples: Theory and empirical findings. *European Review of Applied Psychology = Revue Europeenne de Psychologie Appliquee, 47*(2), 137–141.

Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. A. Revenson, K. Kayser, & G. Bodenmann (Eds.). *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33–49). Washington DC, US: American Psychological Association.

Bodenmann, G., & Shantinath, S. D. (2004). The couples coping enhancement training (CCET): A new approach to prevention of marital distress based upon stress and coping. *Family Relations, 53*(5), 477–484.

Bodenmann, G., Hilpert, P., Nussbeck, F. W., & Bradbury, T. N. (2014). Enhancement of couples' communication and dyadic coping by a self-directed approach: A randomised controlled trial. *Journal of Consulting and Clinical Psychology, 82*(4), 580–591. https://doi.org/10.1037/a0036356.

Bodenmann, G., Pihet, S., Shantinath, S. D., Cina, A., & Widmer, K. (2006). Improving dyadic coping in couples with a stress-oriented approach: A 2-year longitudinal study. *Behavior Modification, 30*(5), 571–597. https://doi.org/10.1177/0145445504269902.

Brobst, J. B., Clopton, J. R., & Hendrick, S. S. (2009). Parenting children with autism spectrum disorders. The couple's relationship. *Focus on Autism and Other Developmental Disabilities, 24*(1), 38–49. https://doi.org/10.1177/1088357608323699.

Brown, S. R. (1980). *Political subjectivity: Applications of Q methodology in political science.* New Haven, CT: Yale University Press.

Burrell, T. L., & Borrego, J. (2012). Parents' involvement in ASD treatment: What is their role? *Cognitive and Behavioral Practice, 19*(3), 423–432.

Camisasca, E., Miragoli, S., & Di Blasio, P. (2016). Families with distinct levels of marital conflict and child adjustment: Which role for maternal and paternal stress? *Journal of Child and Family Studies, 25*, 733–745. https://doi.org/10.1007/s10826-015-0261-0.

Chee, D. Y.-T., Lee, H. C.-y., Falkmer, M., Barnett, T., Falkmer, O., Siljehav, J., et al. (2015). Viewpoints on driving of individuals with and without autism spectrum disorder. *Developmental Neurorehabilitation, 18*(1), 26–36. https://doi.org/10.3109/17518423.2014.964377.

Corcoran, J., Berry, A., & Hill, S. (2015). The lived experience of US parents of children with autism spectrum disorders: A systematic review and meta-synthesis. *Journal of Intellectual Disabilities, 19*(4), 356–366. https://doi.org/10.1177/1744629515577876.

Cummings, M. E., & Merrilees, C. E. (2010). Identifying the dynamic processes underlying links between marital conflict and child adjustment. In M. S. Schultz, M. K. Pruett, P. K. Kerig, & R. D. Parke (Eds.). *Strengthening couple relationships for optimal child development: Lessons from research and intervention* (pp. 27–40). Washington DC: American Psychological Association.

DePape, A.-M., & Lindsay, S. (2015). Parents' experiences of caring for a child with autism spectrum disorder. *Qualitative Health Research, 25*(4), 569–583. https://doi.org/10.1177/1049732314552455.

Doss, B. D., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2009). The effect of the transition to parenthood on relationship quality: An 8-year prospective study. *Journal of Personality and Social Psychology, 96*(3), 601–619. https://doi.org/10.1037/a0013969.

Ehrenberg, M. F., Gearing-Small, M., Hunter, M. A., & Small, B. J. (2001). Childcare task division and shared parenting attitudes in dual-earner families of young children. *Family Relations, 50*, 143–153.

Ekas, N. V., Timmons, L., Pruitt, M., Ghilain, C., & Alessandri, M. (2015). The power of positivity: Predictors of relationship satisfaction for parents of children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 45*(7), 1997–2007. https://doi.org/10.1007/s10803-015-2362-4.

Falconier, M. K., Jackson, J. B., Hilpert, P., & Bodenmann, G. (2015). Dyadic coping and relationship satisfaction: A meta-analysis. *Clinical Psychology Review, 42*, 28–46. https://doi.org/10.1016/j.cpr.2015.07.002.

Falkmer, M., Barnett, T., Horlin, C., Falkmer, O., Siljehav, J., Fristedt, S., et al. (2015). Viewpoints of adults with and without autism spectrum disorders on public transport. *Transportation Research Part A, Policy and Practice, 80*, 163–183. https://doi.org/10.1016/j.tra.2015.07.019.

Fincham, F. D., & Rogge, R. (2010). Understanding relationship quality: Theoretical challenges and new tools for assessment. *Journal of Family Theory & Review, 2*(4), 227–242. https://doi.org/10.1111/j.1756-2589.2010.00059.x.

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with Couples Satisfaction Index. *Journal of Family Psychology, 21*(4), 572–583. https://doi.org/10.1037/0893-3200.21.4.572.

Garcia-Lopez, C., Sarria, E., Pozo, P., & Recio, P. (2016). Supportive dyadic coping and psychological adaptation in couples parenting children with autism spectrum disorder: The role of relationship satisfaction. *Journal of Autism and Developmental Disorders, 46*(11), 3434–3447. https://doi.org/10.1007/s10803-016-2883-5.

Guttman, L. (1954). Some necessary conditions for common factor analysis. *Psychometrika, 19*, 149–161.

Hall, H. R., & Graff, C. (2011). The relationships among adaptive behaviors of children with autism, family support, parenting stress, and coping. *Issues in Comprehensive Pediatric Nursing, 34*(1), 4–25. https://doi.org/10.3109/01460862.2011.555270.

Harrist, A. W., & Ainslie, R. C. (1998). Marital discord and child behavior problems: Parent-child relationship quality and child interpersonal awareness as mediators. *Journal of Family Issues, 19*(2), 140–163. https://doi.org/10.1177/019251398019002002.

Hartley, S. L., Barker, E. T., Baker, J., Seltzer, M. M., & Greenberg, J. S. (2012). Marital satisfaction and life circumstances of grown children with autism across 7 years. *Journal of Family Psychology, 26*(5), 688.

Hartley, S. L., Barker, E. T., Seltzer, M. M., Greenberg, J. S., & Floyd, F. J. (2011). Marital satisfaction and parenting experiences of mothers and fathers of adolescents and adults with autism. *American Journal on Intellectual and Developmental Disabilities, 116*(1), 81–95. https://doi.org/10.1352/1944-7558-116.1.81.

Hartley, S. L., Mihaila, I., Otalora-Fadner, H. S., & Bussanich, P. M. (2014). Division of labour in families of children and adolescents with autism spectrum disorder. *Family Relations, 63*(5), 627–638. https://doi.org/10.1111/fare.12093.

Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders, 43*(3), 629–642. https://doi.org/10.1007/s10803-012-1604-y.

Herring, S., Gray, K., Taffe, J., Tonge, B., Sweeney, D., & Einfeld, S. (2006). Behaviour and emotional problems in toddlers with pervasive developmental disorders and developmental delay: Associations with parental mental health and family functioning. *Journal of Intellectual Disability Research, 50*(12), 874–882. https://doi.org/10.1111/j.1365-2788.2006.00904.x.

Hock, R. M., Timm, T. M., & Ramisch, J. L. (2012). Parenting children with autism spectrum disorders: A crucible for couple relationships. *Child & Family Social Work, 17*, 406–415. https://doi.org/10.1111/j.1365-2206.2011.00794.x.

Hodge, D., Hoffman, C. D., & Sweeney, D. P. (2011). Increased psychopathology in parents of children with autism: Genetic liability or burden of caregiving? *Journal of Developmental and Physical Disabilities, 23*(3), 227–239. https://doi.org/10.1007/s10882-010-9218-9.

Hoogsteen, L., & Woodgate, R. L. (2013). Centering autism within the family: A qualitative approach to autism and the family. *Journal of Pediatric Nursing, 28*(2), 135–140. https://doi.org/10.1016/j.pedn.2012.06.002.

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*, 141–151.

Kaniel, S., & Siman-Tov, A. (2011). Comparison between mothers and fathers in coping with autistic children: A multivariate model. *European Journal of Special Needs Education, 26*(4), 479–493. https://doi.org/10.1080/08856257.2011.597186.

Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological Bulletin, 118*(1), 3–34. https://doi.org/10.1037/0033-2909.118.1.3.

Karst, J. S., & Van Hecke, A. V. (2012). Parent and family impact of autism spectrum disorders: A review and proposed model for intervention evaluation. *Clinical Child and Family Psychology Review, 15*(3), 247–277. https://doi.org/10.1007/s10567-012-0119-6.

Keizer, R., & Schenk, N. (2012). Becoming a parent and relationship satisfaction: A longitudinal dyadic perspective. *Journal of Marriage and the Family, 74*(4), 759–773. https://doi.org/10.1111/j.1741-3737.2012.00991.x.

Lavee, Y., Sharlin, S., & Katz, R. (1996). The effect of parenting stress on marital quality: An integrated mother-father model. *Journal of Family Issues, 17*(1), 114–135.

Lecavalier, L., Leone, S., & Wiltz, J. (2006). The impact of behavior problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research, 50*(3), 172–183. https://doi.org/10.1111/j.1365-2788.2005.00732.x.

Lickenbrock, D. M., Ekas, N. V., & Whitman, T. L. (2011). Feeling good, feeling bad: Influences of maternal perceptions of the child and marital adjustment on well-being in mothers of children with an autism spectrum disorder. *Journal of Autism and Developmental Disorders, 41*, 848–858. https://doi.org/10.1007/s10803-010-1105-9.

Mackintosh, V. H., Goin-Kochel, R. P., & Myers, B. J. (2012). "What do you like/dislike about the treatments you're currently using?" A qualitative study of parents of children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 27*(1), 51–60. https://doi.org/10.1177/1088357611423542.

Marciano, S. T., Drasgow, E., & Carlson, R. G. (2015). The marital experiences of couples who include a child with autism. *The Family Journal: Counseling and Therapy for Couples and Families, 32*(2), 132–140. https://doi.org/10.1177/1066480714564315.

Markoulakis, R., Fletcher, P., & Bryden, P. (2012). Seeing the glass half full: Benefits to the lived experiences of female primary caregivers of children with autism. *Clinical Nurse Specialist*. https://doi.org/10.1097/NUR.0b013e31823bfb0f.

McCoy, K., Cummings, E. M., & Davies, P. T. (2009). Constructive and destructive marital conflict, emotional security and children's prosocial behavior. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 50*(3), 270–279. https://doi.org/10.1111/j.1469-7610.2008.01945.x.

McCoy, K. P., George, M. R. W., Cummings, M. E., & Davies, P. T. (2013). Constructive and destructive marital conflict, parenting, and children's school and social adjustment. *Social Development, 22*(4), 641–662. https://doi.org/10.1111/sode.12015.

Mitnick, D. M., Heyman, R. E., & Smith Slep, A. M. (2009). Changes in relationship satisfaction across the transition to parenthood: A meta-analysis. *Journal of Family Psychology, 23*(6), 848–852. https://doi.org/10.1037/a0017004.

Myers, B. J., Mackintosh, V. H., & Goin-Kochel, R. P. (2009). My greatest joy and my greatest heartache." Parents' own words on how having a child in the autism spectrum has affected their lives and their families' lives. *Research in Autism Spectrum Disorders, 3*, 670–684. https://doi.org/10.1016/j.rasd.2009.01.004.

Osborne, L. A., McHugh, L., Saunders, J., & Reed, P. (2008). Parenting stress reduces the effectiveness of early teaching interventions for ASD. *Journal of Autism and Developmental Disorders, 38*, 1092–1103. https://doi.org/10.1007/s10803-007-0497-7.

Piven, J., & Palmer, P. (1999). Psychiatric disorder and the broad autism phenotype: Evidence from a family study of multiple-incidence autism families. *The American Journal of Psychiatry, 156*(4), 557–563.

Ramisch, J., Onaga, E., & Oh, S. M. (2013). Keeping a sound marriage: How couples with children with autism spectrum disorders maintain their marriages. *Journal of*

Child and Family Studies. https://doi.org/10.1007/s10826-013-9753-y.
Saleebey, D. (1996). The strengths perspective in social work practice: Extensions and cautions. *Social Work, 41*(3), 296–305.
Schmolck, P. (2014). *PQMethod 2.35*. Retrieved fromhttp://schmolck.userweb.mwn.de/qmethod/.
Scott, M., Falkmer, M., Girdler, S., & Falkmer, T. (2015). Viewpoints on factors for successful employment for adults with autism spectrum disorder. *PloS One, 10*(10), e0139281. https://doi.org/10.1371/journal.pone.0139281.
Sikora, D., Moran, E., Orlich, F., Hall, T. A., Kovacs, E. A., Delahaye, J., et al. (2013). The relationship between family functioning and behavior problems in children with autism spectrum disorders. *Research in Autism Spectrum Disorders, 7*, 307–315.
Sim, A., Cordier, R., Vaz, S., & Falkmer, T. (2016). Relationship satisfaction in couples raising a child with autism spectrum disorder: A systematic review of the literature. *Research in Autism Spectrum Disorders, 31*, 30–52. https://doi.org/10.1016/j.rasd.2016.07.004.
Sim, A., Cordier, R., Vaz, S., & Falkmer, T. (2017). "We are in this together": Experiences of relationship satisfaction in couples raising a child with autism spectrum disorder. *Research in Autism Spectrum Disorders, 58*, 39–51. https://doi.org/10.1016/j.rasd.2018.11.011.
Sim, A., Cordier, R., Vaz, S., Parsons, R., & Falkmer, T. (2017). Relationship satisfaction and dyadic coping in couples with a child with autism spectrum disorder. *Journal of Autism and Develomental Disorders, 47*(11), 3562–3573. https://doi.org/10.1007/s10803-017-3275-1.
Siman-Tov, A., & Kaniel, S. (2011). Stress and personal resource as predictors of the adjustment of parents to autistic children: A multivariate model. *Journal of Autism and Developmental Disorders, 41*(7), 879–890. https://doi.org/10.1007/s10803-010-1112-x.
Simons, J. (2013). An introduction to Q methodology. *Nurse Researcher, 20*(3), 28–32.
Smith, L. E., Greenberg, J., & Seltzer, M. M. (2012). Social support and well-being at mid-life among mothers of adolescents and adults with autism spectrum disorders. *Journal of Autism and Develomental Disorders, 42*(9), 1818–1826. https://doi.org/10.1007/s10803-011-1420-9.
Stahmer, A. C., & Pellecchia, M. (2015). Moving towards a more ecologically valid model of parent-implemented interventions in autism. *Autism, 19*(3), 259–261. https://doi.org/10.1177/1362361314566739.
Stainton Rogers, W. (1995). Q-methodology. In J. Smith, R. Harre, & L. Van Langenhove (Eds.). *Rethinking methods in psychology* (pp. 178–207). New York: Sage.
Thompson, M., Elliott, C., Willis, C., Ward, R., Falkmer, M., Falkmer, T., et al. (2016). Can, want and try: Parents' viewpoints regarding the participation of their child with an acquired brain injury. *PloS One, 11*(7), e0157951. https://doi.org/10.1371/journal.pone.0157951.
Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family Process, 42*(1), 1–18.
Waters, W. (2013). *QSort user manual.* Perth, Western Australia: Alintech.
Watts, S., & Stenner, P. (2005). Doing Q methodology: Theory, method and interpretation. *Qualitative Research in Psychology, 2*, 67–91.
Watts, S., & Stenner, P. (2012a). *Factor interpretation. Doing Q methodological research: Theory, method and interpretation*. London: SAGE Publications Ltd.
Watts, S., & Stenner, P. (2012b). *Introducing Q methodology: The inverted factor technique. Doing Q methodological research: Theory, method and interpretation*. London: SAGE Publications Ltd.
Watts, S., & Stenner, P. (2012c). *Understanding the analytic process (1): Factor extraction. Doing Q methodological research: Theory, method and interpretation*. London: SAGE Publications Ltd.
Watts, S., & Stenner, P. (2012d). *Understanding the analytic process (2): factor rotation and the preparation of factor arrays. Doing Q methodological research: Theory, method and interpretation*. London: SAGE Publications Ltd.
Weitlauf, A. S., Vehorn, A. C., Taylor, J. L., & Warren, Z. E. (2014). Relationship satisfaction, parenting stress, and depression in mothers of children with autism. *Autism, 18*(2), 194–198. https://doi.org/10.1177/1362361312458039.