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Raising a child diagnosed with Autism Spectrum Disorder (ASD) can be a highly stressful life circumstance, yet recent evidence suggests it may also lead to psychological growth. The purpose of this study was to investigate whether a sample of South Australian mothers of children diagnosed with ASD experienced posttraumatic growth (PTG). Ten mothers participated in semi-structured interviews and data were analysed using theory-driven thematic analysis. Overall, the findings supported Tedeschi and Calhoun's model of PTG as mothers experienced growth, to variable degrees, in the domains of greater appreciation of life, improved interpersonal relatedness, greater personal strength, recognition of new possibilities, and spiritual development. The findings have implications for strengths-based service-provision for mothers of children diagnosed with ASD.

KEY WORDS: Posttraumatic growth; Autism; Asperger's syndrome; mothers.

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Learning of a child's diagnosis of Autism Spectrum Disorder (ASD) can be a devastating experience for parents (Altiere & von Kluge, 2009). When long-held beliefs about all that parenthood has to offer are replaced by uncertainty for a child's future, a difficult period of psychological adjustment may ensue (Bristol, 1987). Beyond diagnosis, parents are often confronted by numerous challenges while raising a child diagnosed with ASD. These stressors, understood to carry significant implications for mothers - who tend to assume primary caregiving responsibilities – can include coming to terms with the unknown aetiology of ASD (Dale et al., 2006), accessing appropriate education and healthcare services, social exclusion, child behaviour problems, and concerns for their child's future care (Firth & Dryer, 2013; Gray, 1994). As a consequence, mothers of children diagnosed with ASD remain a vulnerable group, and are consistently reported to experience high levels of stress and are known to be at greater risk for psychological disturbances themselves including anxiety and depression (Vicki Bitsika & Sharpley, 2004; Hayes & Watson, 2013). While a large body of research has shown that parenting a child diagnosed with ASD may constitute a highly challenging life circumstance, emerging evidence suggests that the struggle endured by mothers may also elicit opportunities for psychological growth (Phelps et al., 2009; Strecker et al., 2014; Zhang et al., 2015; Zhang et al., 2013).

While limited in scope relative to research concerning the negative impact of parenting a child diagnosed with ASD, the literature on psychological growth following a stressful life event (as outlined below) may be a useful theoretical framework for understanding cumulative evidence of positive changes experienced as a result of raising a child diagnosed with ASD. This paper aims to contribute to the small body of previous

research in this area by using qualitative methods to determine whether a sample of South Australian mothers of children diagnosed with ASD experience growth, and to examine growth experiences through the lens of the five domains of what is defined in the literature as Posttraumatic Growth (PTG), in order to explore the applicability of the theory to the unique experiences of parenting a child with ASD. Specifically, the research reported her aimed to: (1) examine how mothers experience and articulate growth experiences, and (2) to determine the extent to which mothers' experiences of PTG map onto the five domains of PTG (Appreciation of Life, Relating to Others, Personal Strength, Recognition of New Possibilities, and Spiritual Change) as defined by Tedeschi and Calhoun (1996; 2004).

Previous research concerning Posttraumatic Growth (PTG)

Tedeschi and Calhoun's (1995, 2004) theory of PTG describes the less well known outcome of 'positive psychological change experienced as a result of the struggle with highly challenging life circumstances' (Tedeschi & Calhoun, 2004, p. 1). The theory finds potential for developing growth in five key domains (Appreciation of Life, Relating to Others, Personal Strength, Recognition of New Possibilities, and Spiritual Change) when a person's adaptive resources and assumptive beliefs are challenged by highly stressful, often uncontrollable circumstances (Tedeschi & Calhoun, 1995, 2004). This concept of PTG may provide a useful theoretical framework for understanding cumulative evidence of positive change previously reported by parents of children with ASD and other developmental disabilities.

For example, several researchers have described outcomes similar to PTG, however in the absence of a unifying theoretical framework, findings have generally been considered independent of one another, denoted by terms such as "benefit finding" (McConnell et al., 2014; Pakenham et al., 2004; Samios et al., 2009), silver linings (M. W. Bultas & Pohlman,

2014), and personal growth (Bayat, 2007). In qualitative research examining belief systems of parents of children diagnosed with ASD or Down syndrome, positive changes in values and priorities, enhanced interpersonal relatedness, greater appreciation, and personal growth in the sense of becoming more accepting, patient, compassionate and perseverant (G. A. King et al., 2006; G. King, Zwaigenbaum, Bates, Baxter, & Rosenbaum, 2012; Gillian King et al., 2009). Similarly, qualitative research designed to investigate resiliency among 175 parents of children diagnosed with ASD found evidence of growth in the form of reaffirmed personal strength, changed priorities including increased value on the importance of family, and spiritual growth (Bayat, 2007). Importantly, the aforementioned papers document parent reports of transformative change, or "transcendence" (G. A. King et al., 2006, p. 362) rather than merely positive experiences associated with parenting or successful coping (McConnell et al., 2014).

While the existing literature concerning positive outcomes, as outlined above, provides a clear rationale for the application of the theory of PTG in this population, to date only a handful of researchers have investigated PTG in parents of children diagnosed with ASD (Aaron Resch et al., 2012; Motaghedi & Amraie, 2014; Phelps et al., 2009; Strecker et al., 2014; Zhang et al., 2015; Zhang et al., 2013). Specifically, Phelps et al. (2009) investigated correlates of stress, enrichment (the extent to which raising a child with ASD has enriched one's life), and PTG in a sample of 80 parents using an adapted version of the Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996), a 21-item questionnaire examining self-reported change following adversity. PTG was correlated with enrichment scores, but not stress, and the impact of identification with specific domains of growth elicited using the PTGI, was not explored in this study. Strecker et al. (2014), also using the PTGI, reported that an Australian sample of parents (27 mothers and 6 fathers) of children with developmental disabilities including ASD (57%), experienced significantly

higher levels of PTG than other Australian samples that experienced various forms of traumatic stress. Zhang et al. (2013), however, focused on the specific domains, finding that of 102 mothers from Mainland China, mothers scored highest on Personal Strength, followed by, in order, Appreciation of Life, Relating to Others, Spiritual Change and New Possibilities. Positive coping was found to be a significant predictor of PTG, as was purposeful reflection on one's life circumstances (Zhang et al., 2013).

In the only qualitative investigation of PTG in mothers of children with ASD to date, Zhang et al. (2015) mapped the interview responses of 11 mothers of children with ASD from Mainland China to reveal partial support for the five domains of PTG, with limited evidence of growth in the domain of spiritual change evident in this sample. Though encouraging, the generalizability of these findings beyond the Chinese context is potentially limited as parenting values as well as cultural attitudes to neurodiversity may differ greatly between Chinese and Western cultures (Zhang et al., 2015).

Taken together, previous research suggests that PTG in mothers of children diagnosed with ASD is an important and understudied field of inquiry, in which existing evidence may have been overlooked due to the absence of a unifying theoretical model such as PTG. Investigation of the potential for PTG in this sample is important since PTG has recently been associated with greater parental well-being in parents of children with developmental disabilities, including ASD (Aaron Resch et al., 2012; Motaghedi & Amraie, 2014). In addition, greater understanding of positive psychological outcomes may provide pathways for service providers to offer genuine hope and strengths-based support for mothers (M. W. Bultas & Pohlman, 2014). For example, facilitation of growth may assist in empowering mothers to balance experiences of loss and adversity with opportunities for personal growth.

Method

Design

A deductive thematic analysis approach was chosen in the interest of addressing the research

question - that is, whether (Tedeschi & Calhoun, 2004) theory of PTG could be meaningfully

applied to the experience of parenting a child diagnosed with ASD. This research design is

considered appropriate for theory-driven qualitative research (Braun & Clarke, 2006). The

study was approved by the Human Research Ethics Committee of the University of Adelaide.

Participants

Mothers of at least one child diagnosed with ASD were purposefully recruited for this study.

Recruitment occurred in two ways; firstly, an invitation to participate was posted on the

online social networking site "Quirky Kids Network" which comprises 292 parent members

and is based in the inner South of Adelaide, South Australia. Due to a low response rate, the

invitation was additionally advertised on the Autism SA website and in the Autism SA

monthly Workshop and Development Bulletin for two consecutive months. Autism SA is one

of the largest accredited providers of ASD support services in South Australia, servicing over

7200 persons with ASD, carers, and families each year (Autism SA, 2013/2014).

Eligibility criteria for participation included being a mother (or female carer) of at

least one child with diagnosed with ASD or Asperger's syndrome at least 12 months prior,

for whom they are a primary carer. It was anticipated that having a period of 12 months since

initial diagnosis would enable parents to best respond to questions concerning personal

change over time. Parents interested were initially asked to contact the researchers to learn

more about the study and make arrangements for an interview. A total of 14 women made

contact, and of these, four withdrew prior to being interviewed. Interviews were conducted

with 10 mothers, all of whom gave informed written consent. After interviews with the 10

mothers, no new information relevant to the study aims emerged and data saturation was considered met. Participant age ranged from 28 to 56 years old (M = 43.3 years, SD = 8.2). Six mothers were of tertiary level education, and three were working toward either their first or additional tertiary qualifications. Half of the mothers were unemployed, and eight mothers were married at the time of the study. Further details of participant characteristics, including information pertaining to the, are provided in Table 1.

Procedure

Data were collected between June and September of 2015. Interviews were conducted either face-to-face at one of two University campuses in metropolitan Adelaide (n = 6 participants), or via telephone (n = 4 participants). Duration of interviews ranged from 41 minutes to 129 minutes (M = 68.6, SD = 32.11) Interviews were semi-structured, with a set of primary questions and follow-up probes developed on the basis of the Posttraumatic Growth Inventory (PTGI) and previous literature concerning PTG and parenting a child with ASD. The research questions were assessed for face validity by the research supervisor (C.D.), who also attended the first interview. Subsequent interviews were conducted by the first author (N.C.). Examples of interview questions included: "When you received the diagnosis, what did it mean to you as a mother?"; "Has that meaning changed for you over time?"; and " Have you found there to be any positive changes in your life as a result of your experiences raising a child with ASD?". All interviews were digitally recorded and transcribed verbatim by the first author using an orthographic transcription method outlined by Braun and Clarke (2013). To ensure the confidentiality of participants, all identifying information was coded using synonyms. Sequential analysis ensured that subsequent interviews were informed by preceding interviews. This was also important in monitoring data saturation (Braun & Clarke, 2013). One example where sequential analysis proved valuable was in recognising that the

term 'benefits' (for example, in a question asked in the first two interviews: 'Have you found there to be any benefits from raising a child with ASD?') elicited a cautious response from interviewees. The authors decided that this question was too positively loaded, and as such, the word 'benefits' was replaced with 'positive changes'. The interviewer noted more expansive responses regarding relative positive change were provided in subsequent interviews. Finally, an audit trail was constructed throughout the data gathering process, so as to provide evidence of the development and progression, and to allow for constant comparison of each stage of the research process (Tracy, 2010).

Data analysis

This study adopted a realist methodological framework, where the experiences, meanings and the reality of the participants were reported. Themes within data were identified using a deductive approach, given that the research question aimed to identify evidence of PTG in this population. As such, data were coded based on how statements mapped onto the theoretical premise of PTG, and specifically the five domains posited by Tedeschi and Calhoun (1996, 2004). In addition, themes were identified using a semantic approach, where the researcher was not looking for anything beyond what the participant said (Braun & Clarke, 2006). From this standpoint, the researcher accepts that the participant's response is indicative of their lived experience as the mother of a child with ASD.

Braun & Clarke (2006) propose a comprehensive approach to analysing qualitative data, identifying six phases. Familiarisation with the data, the first stage of analysis identified by Braun & Clarke (2006), involved the researcher transcribing the interviews, then reading and re-reading transcripts thoroughly, in addition to noting preliminary codes and initial responses to the data set. Following this, interesting features of the data were systematically coded, with particular reference to the research question. Once the data had been coded, these

were collated into respective themes (that is, the domains of PTG) and sub-themes (themes within a given domain), which were then reviewed against the entire data set to determine appropriateness. In the next phase of analysis, the coded extracts were examined against the themes and sub-themes for coherence, and against the data set as a whole (Braun & Clarke, 2006). Once the researcher was satisfied that themes and sub-themes were accurately represented by the coded extracts, subthemes within the respective domains of PTG were identified and named. Finally, analysis involved incorporating extracts identified as providing the most 'vivid examples' of the domains of PTG and the sub-themes within each of these domains (Braun & Clarke, 2006).

Participants were invited to provide feedback in response to key themes identified by the researcher. This process, known as 'member reflections', allowed for synthesis in understanding, and gave opportunity for new data to be included (Tracy, 2010). Participants were sent a list with brief descriptions of key themes by e-mail. Six participants responded; five respondents indicated complete satisfaction with theme identification and one participant suggested an additional theme – the loss of professional status. While this was an experience of significance for many participants, it did not relate directly to the research question and therefore was not incorporated as a theme. Experiences of loss precursory to the development of PTG are discussed broadly within the paper with respect to forging pathways for growth.

In line with Pope and Mays (2006) recommendations, a second researcher (C.D.) cross-checked a sample of transcripts for integrity of the themes and while there were minor disparities, these were resolved through discussion and consensus on the final content of themes and identification of subthemes was reached. A report of the analysis is represented in the Results section of this paper.

Results

Data were categorised according to the five domains of PTG, as identified by Tedeschi and Calhoun (1996, 2004). Subthemes were identified within two domains ('Appreciation of Life' and 'Relating to Others') where data was considered to delineate significantly within the domain. Domains reported by each participant and the number of statements pertaining to each domain are provided in Table 2.

Evidence of PTG

Appreciation of life. This domain reflects appreciation for aspects of life previously taken for granted, including life itself, along with a changed sense priorities or renewed conceptualisation of one's values (Tedeschi & Calhoun, 2004). Appreciation for life in general, as identified in some PTG research (Engelkemeyer & Marwit, 2008; Picoraro et al., 2014), was not found in the interviews and it is plausible that this aspect of the domain may be more pronounced in populations who have experienced a more actualised loss, as addressed in the Discussion (Shakespeare-Finch & Armstrong, 2010). However, two subthemes relating to appreciation in other ways were found, namely 'relative appreciation, 'a changed sense of priorities and values'.

'Relative appreciation' for things that did go right was a common subtheme. Eight mothers described feeling grateful, appreciative, and even 'lucky' about aspects of daily life that might typically be taken for granted. For example*:*

> *"…in the earlier days it was hard to see the positives, but as time went on you could see, you can reflect and go 'oh wow'…he just went to the toilet and I didn't have to stand there, that's great!" (Danielle)*

"I'm really fortunate just to have him…it's been a process of coming to that because I think people generally see special needs children as a burden on their family…and then all of a sudden you realise you wouldn't change it for the world. Yeah, I think it's been a good journey overall." (Erica)

The second subtheme related to 'Appreciation of Life' comprised mothers' identification that their priorities had changed after having a child with ASD. Changed priorities were expressed in several ways by nine of the ten participants. It is important to note that a deep sense of grief was expressed by several mothers who had ceased employment or whose professional aspirations had been disrupted as a result caregiver demands associated with having a child diagnosed with ASD. Many had also struggled to accommodate losses associated with various lifestyle factors including where they were able to live, day-to-day stressors, financial costs, and an encumbered sense of social freedom. The process of coming to terms with impacts beyond their control seemed to spur many mothers to re-evaluate their priorities, and for many, this led to fundamental changes in what they came to value as important. Four mothers described themselves as less career oriented then they otherwise would have been, placing more value on supporting their children's development and being family focused. One mother, who had been a successful professional and self-described 'overachiever' prior to the birth of her child with ASD described:

"You think well what would my life have been if he wasn't- [sic] didn't have special needs…there's a selfish part of me that goes oh you know all those years and years and years that you train to become a lawyer and worked really hard…and then you just have to give it up, you have to give up all that part of yourself, and there is that

part of you that grieves that…but overall I think well we're only here for a short

period so I'd rather enjoy my children than put my nose in a bunch of law books."

(Erica)

For others, a changed sense of what really mattered in life was signified by greater acceptance of the situation they found themselves in as they raised a child or children with ASD. One mother described how her change in priorities enabled her to embrace life's ups and downs:

"You're certainly humbled, there are lots of situations in your daily life and you think

yeah it'd be great to have perfect hair and no stains on your clothes…but not in my

world, those things don't happen and a need to feel organised and to feel on top of

things – it doesn't kind of quite happen. But there's a deliciousness in that too."

(Maddie)

While many mothers' experiences mapped onto the domain of "Appreciation of Life", it is important to note that three mothers reported continuing to struggle to come to terms with their circumstances. For example:

"I guess I haven't really made sense of it, like I haven't really embraced the idea that

this is my destiny now, to be a carer for [my son], so it's a bit hard." (Melanie)

Personal Strength. The recognition of possessing personal strength pertains to the experience of believing that one is psychologically stronger for having endured and coped with challenges (Tedeschi & Calhoun, 2004). In relation to this domain, participants indicated that

they saw themselves as developing resilience in relation to their required roles as advocates, educators, therapists and diplomats for their child or children with ASD. For example:

"...you always think you try fairly hard, but we've always got another, I don't know, 10, 20, 30 percent worth of something inside of us. You think 'I'm at my limit right now and then you rarely are…so it stretches you in that way." (Maddie)

"Maybe it made me a stronger person because I think I had family members saying things like…'he's just manipulating you let…let me have him for a week and we'll sort him out'…I didn't believe that he needed sorting out, I think he needed understanding" (Jessica)

This increased sense of personal strength seemed to also translate to other areas of life, with one mother describing a scenario that led her stand up for the rights of an adult with disability:

> *"I think its made me feel stronger for anybody who is possibly at a disadvantage or not being able to communicate or you know, its made me want to advocate for people who maybe are more vulnerable, I guess." (Jessica)*

New Possibilities. Growth in the domain of new possibilities is seen when an individual identifies new possibilities or opportunities for an alternate path in life, influenced by their own struggle with hardship. Five mothers embarked upon new career or volunteering paths which were considered to deviate significantly from their previous life trajectory and which offered new possibilities for personally rewarding achievement. Finding new paths involved

change; for some it was from fast-paced, high paying roles into helping professions that supported individuals and families affected by disadvantage. For example:

> *"It's probably given me a totally different career path…I was a marketing executive before I had children and now I'm doing social work." (Vanessa)*

Two other mothers, already engaged in helping professions, described identification of new possibilities within their chosen paths. For example, one mother expressed how her experience of raising a son diagnosed with ASD fuelled her passion for continuing her tertiary studies, with an adapted interest in the field of ASD research.

Relating to Others. Two subthemes concerning interpersonal relationships were identified: specifically, 'more meaningful, cherished relationships with others' - where bonding occurred over shared experiences of adversity, and 'increased compassion and empathy'.

The first subtheme 'more meaningful, cherished relationships with others' related to the formation of meaningful new friendships with parents within the ASD community, where there was mutual understanding and reciprocal exchange of support. All six of the mothers who experienced this also described the loss or distancing of former friendships and this was regarded by several mothers as a process of learning who their 'real friends' were rather than perceived rejection. There seemed to be a deep sense of connection reserved for those who had stuck by them through difficult times. For example:

"It's changed even friendships and relationships too, because some friendships hang on and others don't through times like that and the one's that do are very, very worthwhile." (Danielle)

Four mothers expressed having an exceptionally close bond with their child with ASD. However, none of the mothers discussed increased closeness with other members of their family, including spouses – indicating that perhaps the closeness brought about by the challenges of raising a child with ASD were more pronounced within friendships than family relationships in this sample.

Although most parents reported having formed meaningful relationships with others within the ASD community, one mother indicated that while supportive, her friendships with mothers of children diagnosed with ASD offered her limited fulfilment:

"Our entire conversations are about the children and their needs… that kind of stuff you hear around the water cooler, that's just non-existent in our social groups, it's all talking about children and therapy." (Erica)

Another subtheme of 'Relating to Others' was the experience of 'increased empathy and compassion', particularly for others experiencing hardship. For example:

"I have actually supported [other people] through the diagnosis process…I just feel that when that parent gives you a hug and says oh my goodness, thank you so much...yeah I find that really good because then I feel better that someone else hasn't had to struggle like I did." (Kate)

Mothers also expressed feeling that they had become less judgemental and more accepting, more patient, kinder, more understanding, and generally perceived themselves as better mothers and better people as a result of raising a child diagnosed with ASD. Positive changes in self-perception were expressed by eight of ten mothers, and each of these changes held implications for how they related to members of their community, their children, or how they related to clients encountered in their professional roles. For example:

"I'm a better mum than I would have been, I'm more in touch…" (Vanessa)

"Being self-reflective, it's made me more patient I think…more compassionate as well. It's opened my eyes to what we had, the diversity of people and being more accepting and I'm really a lot less judgemental than I would have been." (Jessica)

Spiritual Change. The dimension of 'Spiritual Change', which constitutes religious or other spiritual development and greater engagement with existential questions, was not well reflected in our data set. One mother - who identified as having a religious faith, described a perceived strengthening of her faith, while another mother described looking to non-religious spiritual activities in the context of self-care (i.e. meditation), as well as a sense of being more spiritually connected with self:

"It's probably set me on a little bit of a spiritual path…I think I've become more intuitive…" (Jessica)

One mother, however, explicitly expressed not having considered spiritual or existential meanings in attempt to make sense of her experience:

"I haven't made sense of it in any sort of profound way in terms of you know, like having some spiritual ideas about it or anything like that." (Melanie)

Generally within our sample, there was little evidence of greater engagement with fundamental existential questions (i.e. 'what is the meaning of having a child diagnosed with ASD?'). It is conceivable that this could be a growth experience more relevant to those who have already overcome adversity, and less so for those who are still actively living in difficult life circumstances, as our participants were (Phelps et al., 2009).

Discussion

This study utilised theory-driven thematic analysis to explore experiences of positive change among mothers of children diagnosed with ASD, and to determine the extent that mothers' experiences mapped onto Tedeschi and Calhoun's (1996, 2004) proposed domains of PTG (Appreciation of Life, Personal Growth, Relating to Others, New Possibilities, and Spiritual Change). Consistent with past literature, the findings indicated that despite highly stressful circumstances, mothers in our sample experienced PTG across all five domains of growth, although to variable degrees (Phelps et al., 2009; Strecker et al., 2014; Zhang et al., 2015; Zhang et al., 2013).

The domain of 'Appreciation of Life' was most evident in our data, including substantial evidence of growth in relation to the subtheme 'changed values and priorities'. However, the sub-theme 'relative appreciation' demonstrated a slightly different conceptualisation from the original theory of PTG, which also proposed a general

appreciation for living each day (Tedeschi & Calhoun, 1996). Our sample expressed 'relative appreciation' in the sense that they had come to focus on positive aspects of their child's development, and developed increased gratitude for the little things in life. These changes support previous literature which has outlined the role of positive reappraisal in growth processes among of parents of children with ASD and other disabilities (G. A. King et al., 2006; McConnell et al., 2014), while appreciation for living *per se* has been most evident in subsamples that have experienced actualised loss or survival (Colville & Cream, 2009; Picoraro et al., 2014). Zhang et al. (2015) also reported limited evidence for 'Appreciation of Life' as defined in traditional PTG models, however while we employed sub-themes to denote this deviation as discussed above, Zhang et al. (2015) re-classified 'changed values and priorities' into a new domain which they called 'a new philosophy of life'.

Previous research has provided mixed evidence regarding the impact of ASD on the quality of mothers' relationships - including spousal and parent-child relationships (Bayat, 2007; Karst & van Hecke, 2012; Markoulakis et al., 2012). However, our study showed strong evidence of positive growth in the domain of 'Relating to Others', particularly in relation to increased closeness in friendships and mother-child relationships, together with a perception of greater compassion and empathy. Although it was not explored in this study, these findings may be linked to prior evidence that perceived social support is an important facilitating factor in the development of PTG (Zhang et al., 2015). With respect to the subtheme 'increased compassion and empathy', the majority of mothers in our sample reported associated positive changes in self-perception; viewing oneself as a better mother as a result of enhanced personal qualities of value, such as empathy and kindness. These findings confirm existing evidence of positive changes in self-perception as a prominent experience of growth for mothers of children diagnosed with ASD (G. A. King et al., 2006; Markoulakis et al., 2012). Further research is needed to determine whether these changes

may be linked to existing evidence of the role of positive cognitions in the development of parental self-efficacy (Kuhn & Carter, 2006), and of 'self-efficacy enhancement' as a facilitating factor of PTG (Zhang et al., 2015).

Growth in the domains of increased 'Personal Strength' and 'New Possibilities' were also moderately reflected in our sample. Like Zhang et al. (2015), however, there was little evidence of growth in the domain of 'Spiritual Change'. Although this contrasts with the findings of Ekas, Whitman, and Shivers (2009) – who found that religious and spiritual beliefs were associated with positive outcomes for mothers of children diagnosed with ASD, the influence of prior religiosity on perceptions of growth in this domain remain unknown. It is also possible that existential contemplation may be an aspect of growth that develops later in the PTG process, as age and positive perceptions have been shown to be correlated (Phelps et al., 2009). ENREF 17As such, growth in this domain may be better assessed in mothers with older children – for example, who have left their family home - when mothers have had more time to engage in reflective practice, rather than while still living in difficult caregiving circumstances (Phelps et al., 2009). It is also possible that 'Spiritual Change' is a domain of growth which is less applicable to parents of children with disabilities, and this would be a useful area of future research in order to ensure that the model of PTG is adapted to best suit this cohort of people.

Implications for practice

This is the first study to employ qualitative methods to examine PTG in mothers of children diagnosed with ASD in an Australian sample, and to provide evidence of the applicability of the five domain model to this population. Our data contributes to current literature in a number of ways that have important implications for service provision to parents and families. In particular, while mothers of children diagnosed with ASD are likely

to experience ongoing stressors, understanding that PTG is a potential outcome for mothers may expand the capacity of clinicians to deliver information and services that address both the positive and negative impact of parenting a child with ASD. By being attuned to the possibility of growth, clinicians working with families can support parents to cultivate positive perceptions of their caregiving experience, which has been shown to reduce parents' focus on the negative aspects of ASD (Kayfitz et al., 2010). However, given that recent Australian research found that growth did not negate levels of distress reported by parents of children diagnosed with ASD (Strecker et al., 2014), professionals should observe appropriate timing for such discussions, and emphasise that the prospect of positive change is not intended to minimise the challenges associated with parenting, nor does it necessarily reduce the need for professional support (Phelps et al., 2009).

A further potential implication of this research is support for the use of therapeutic interventions designed to engage cognitive processes that may facilitate the development of PTG. For example, Zhang et al. (2015) suggests the use of 'Acceptance and Commitment Therapy' techniques to aid acceptance of distressing emotions and teach value-laden reframing of perspective (Blackledge & Hayes, 2006). Furthermore, research by Zhang et al. (2014) has shown that PTG can be cultivated in mothers of children with ASD through solution-focused brief therapy.

Limitations and future directions

The current study had several limitations that should be addressed by future research. Firstly, the use of theory-driven analysis can be prone to biased methods of classification that force meaning into *a priori* themes (in this case, the domains of PTG) which may or may not accurately reflect the participants' experience, although it should be noted that the member checking of themes suggested that participants were happy with the overall thematic

structure. Sampling bias was a further limitation, as the mothers in our sample were generally well educated, in relationships, and all were members of either an online ASD social community or engaged with the Autism SA service provider, which may have yielded a particularly resilient sample (M. W. Bultas & Pohlman, 2014). As such, it is acknowledged that, in conjunction with the small sample size, our sample is not likely to be representative of all mothers of children with ASD.

In relation to future research, longitudinal data would be a valuable addition to the field since the theory of PTG posits that growth is a dynamic process which may present differently at various stages throughout the lifespan (Tedeschi & Calhoun, 2004). Relatedly, it is necessary to examine PTG experiences among mothers once children are beyond school-age, for instance in early adulthood, as this life stage and the dynamics of aging parents may produce greater insights into continuing growth overtime. Finally, it is important that future studies focus on all members of the family - and particularly fathers - whose potential for PTG in relation to raising a child with ASD remains largely unknown (Cridland et al., 2014).

Summary and Conclusion

Although parenting a child diagnosed with ASD can lead to significant challenges for mothers and pose risks to psychosocial well-being (Karst & van Hecke, 2012), mothers in this study experienced PTG as a result of their adaptation to difficult parenting circumstances. The results of this study, in conjunction with very recent emerging evidence in this field (Phelps et al., 2009; Strecker et al., 2014; Zhang et al., 2015; Zhang et al., 2013), suggest that PTG is an important yet understudied experience of mothers of children diagnosed with ASD. Continuing research efforts are needed to understand the cognitive model of PTG and to develop a deeper understanding of how PTG may enrich the lives mothers. With increased appreciation of the complete caregiver experience, service providers

may have greater capacity to utilise strength-based approaches in working with parents and families, and will be able to offer authentic hope to mothers for the future (Bayat, 2007).

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Table 1. Participant and child diagnosed with Autism Spectrum disorder (ASD) demographic details

Participant						Child				
Participant	Age (years)	Level of Education	Employed	Studying	Marital Status	Gender	Age (years)	Diagnosis	Age at Diagnosis	Siblings
1 (Vanessa)	42	Bachelor Degree	No	Yes	Married	M	11	Asperger's syndrome	6	1
2 (Rachel)	45	Honours Degree	Yes		Married	M	11	Asperger's syndrome	5	2
3 (Melanie)	48	PhD	No		Married	M	9	ASD moderate-severe	18 m	1
4 (Susanna)	28	Vocational Qualification	No	Yes	Single	M	4	ASD moderate-severe	2y 11m	0
5 (Maddie)	48	Honours Degree	Yes		Partnered	M	6	ASD mild-moderate	2y 6m	0
6 (Caitlyn)	56	Diploma	Yes		Married	M	19	ASD mild	14	2
7 (Jessica)	47	Vocational Qualification	No	Yes	Remarried	M	13	Asperger's Syndrome	7	3
8 (Diana)	48	PhD	Yes		Married	M	11	Asperger's syndrome	6	0
9 (Kate)	35	Diploma	Yes		Married	M & F	11, 8	Asperger's syndrome, ASD mild	6, 7	3
10 (Erica)	36	Honours Degree	No		Married	M	8	ASD mild	3	2

Note: All names are pseudonyms

Table 2. Evidence of Posttraumatic Growth (PTG) categorised by domain of growth.

Domain of Growth	Statement Count	Participant
Appreciation of Life	37	1,2,3,4,5,6,7,8,10
Personal Strength	14	2,4,5,6,7,9
New Possibilities	11	1,4,5,7,8,9,10
Relating to Others	30	1,3,4,5,6,7,8,9,10
Spiritual Change	4	7,9