BRIEF REPORT

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Brief Report: Parent's Assessments of Their Care-Related Stress and Child's ASD Symptoms in Relation to Their child's Intervention History

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Abstract

Parenting a child with autism spectrum disorder (ASD) can be stressful. Understanding parent's perceptions of their stress and their child's ASD-related symptoms is important for both the well-being of parent and child and for other reasons, such as intervention adherence and diagnostic accuracy. We report parent (N = 570) ratings of both their ASD Care-Related Stress scores and their child's symptoms in relation to the child's exposure to five mainstream ASD interventions. Differences across intervention history in the way parents perceive their child's symptoms and rate the stressfulness of performing ASD-related parenting duties were found.

Keywords Autism · ASD · Parenting stress · Interventions

Introduction

This brief report serves as an adjunct to the data presented in Shepherd et al. (2017) documenting the intervention choices made by parents of a child with autism spectrum disorder (ASD). The main findings of this study was that funding and child symptom severity were the main drivers of intervention choices, and that medical professionals exerted the most influence upon parent's decisions. In the current report the relationship between a child's intervention history and both the child's ASD-related symptoms and the parent's ASD care-related stress are investigated using parent-rated measures.

ASD-related caregiving tasks can be demanding on parents, both physically and emotionally, and can contribute to a decline of personal health and well-being, as-well-as straining interpersonal relationships. In turn, parenting stress can impact the well-being of their child with ASD, increasing the child's risk of being abused or neglected (Whitmore 2016), as-well-as counteracting the effectiveness of interventions (Osborne et al. 2007). How a parent views their child's ASD symptoms influences intervention choices and, importantly, how interventions impact those symptoms influences parental decisions as to whether the child will continue the treatment. As such, research into how parents perceive their child's ASD symptoms and, in turn, how they perceive ASD-related parenting tasks as stressful, is an important but neglected avenue of research.

Much of the ASD literature has focused on care-related stress and the efficacy of various interventions, however, very few studies have explored the effects of intervention engagement per se upon parenting stress (Bendixen et al. 2011), especially from a parent's perspective (Karst and Van Hecke 2013). An exception is the study by Hastings and Johnson (2001), who reported that parental perceptions of both their child's ASD symptoms and the intervention effectiveness of a behavioural therapy (BT) were

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associated with lower parental stress. Thus, it would be expected that a child's intervention history would be in some way associated with parenting stress, and how a parent perceives their child's symptoms would likewise be associated with both their child's intervention history and their own parenting stress levels. The data reported here afford investigation into whether such relationships exist.

Methods

Participants

Participants were the same as those reported in Shepherd et al. (2017). To summarize, 570 participants (482 females) with a mean age of 44.9 ($SD = 7.76$) years and parenting a child formally diagnosed with ASD responded to an online survey. The children had a mean age of 11.08 ($SD = 5.85$) years, and 82% were male. About a third of children ($n = 168$) possessed a comorbidity, with anxiety disorder ($n = 104$), attention-deficit/hyperactivity disorder ($n = 78$), and global developmental delay ($n = 38$) being the most reported.

Materials

Parent-Rated Child ASD Core Symptoms

Also as reported in Shepherd et al. (2017) parents used the autism impact measure (AIM: Kanne et al. 2014) to assess their child's current ASD-related behaviours using four subscales: restricted/ritualized behaviours (8 items); social-emotional reciprocity (7 items); communication/language deficits (5 items), and; odd/atypical behaviours (5 items). A total AIM score was derived by summing the four subscales.

ASD Care-Related Stress Scale

Parent's self-assessment of care-related stress associated with parenting an child with ASD was measured using the 13 ASD-related caregiving tasks identified by Plant and Sanders (2007) as being the top ten stressors for men and women (where seven of these items overlapped). These 13 items have been described in more detail elsewhere (Shepherd et al. 2017). A 7 point Likert-scale ranging from 1 (not at all stressful) to 7 (very stressful) was used to rate care-related stress, and a "not applicable" option was included. A total score was calculated to derive an overall ASD care-related stress score.

Intervention Choices

The child's intervention history was determined according to one of the five mainstream intervention types that typify the New Zealand ASD service context: BT, dietary interventions (DI), intensive applied behavioural analysis (iABA), occupational therapy (OT), and speech language therapy (SLT). Formal descriptions of these definitions have appeared elsewhere (Shepherd et al. 2017). For each of the five interventions a parent matched their child to one of the following four categories: untried, ongoing (i.e., currently engaging), abandoned, or completed (i.e., therapeutic goals met).

Procedure

Participant recruitment and online data collection was described in Shepherd et al. (2017). The authors' institutional ethics committee reviewed and approved the study.

Data Analysis

Data were analysed using IBM-SPSS (v.24), with statistical significance assumed at $p < .05$ unless Bonferroni post hoc corrections were required. Preliminary analyses generated descriptive statistics (mean and standard deviations, Cronbach's alphas) for key variables (e.g., stress and AIM scores), and the relationships between them probed using first- and second-order correlational analyses. Relationships between child symptom and parental stress scores across intervention history (i.e., untried, ongoing, abandoned, completed) were investigated using ANCOVAs or, for the four AIM subscales, MANCOVAs. These analyses were retained to investigate the impact of the number of interventions engaged (past and present, or current only) upon parent-rated stress and child symptoms. Prior to all analyses the data was examined to ensure it adhered to the assumptions of the tests, and all second-order correlation analyses, ANCOVA's, and MANCOAV's controlled for parent age and education, and child age.

Results

Preliminary Analyses

Inspection of Table 1 reveals moderate-to-large positive correlations between the ASD Care-Related Stress Scale and the AIM Total Score and subscales. Similar patterns across both bivariate and partial correlations are in evidence. Mean

Table 1 Correlation coefficients for parent-rated child ASD symptoms, ASD Care-Related Stress Scale scores, and the age of both the parent responder and their child

	Age_{parent}	Age_{Child}	Stress	AIM 1	AIM 2	AIM 3	AIM 4	Total AIM
Stress	−0.187***	−0.265***	**_0.895_**	0.502***	0.482***	0.469***	0.503***	0.606***
AIM 1	−0.190***	−0.115**	0.508***	**_0.834_**	0.462***	0.518***	0.566***	0.808***
AIM 2	−0.141***	−0.201***	0.509***	0.471***	**_0.884_**	0.493***	0.588***	0.780***
AIM 3	−0.106**	−0.060	0.467***	0.526***	0.494***	**_0.868_**	0.574***	0.815***
AIM 4	−0.091*	−0.094**	0.507***	0.569***	0.592***	0.577***	**_0.784_**	0.818***
Total AIM	−0.168***	−0.145***	0.616***	0.813***	0.782***	0.815***	0.818***	**_0.926_**
Mean	44.9	11.08	33.36	24.51	14.06	19.31	15.03	72.37
SD	7.76	5.85	11.96	6.83	5.99	6.45	4.66	11.95

Bivariate correlations are presented on the left-side of the major diagonal, partial correlations to the right. The major diagonal is occupied by Cronbach's alpha coefficients (bold and underlined)

AIM 1 restricted/ritualised behaviour; *AIM 2* communication/language; *AIM 3* social/emotional reciprocity; *AIM 4* odd/atypical behaviours

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

AIM subscale and Total scores and ASD Care-Related Stress Scale Total scores are likewise presented in Table 1.

Symptom Severity and Intervention History

Table 2 presents mean total AIM scores as a function of child intervention history (i.e., untried, ongoing, abandoned, completed) referenced to the five mainstream interventions found in the New Zealand context. Statistical significance was noted in the SLT [$F(3, 548) = 25.44$, $p < .001$, $\eta_p^2 = 0.122$] and OT [$F(3, 548) = 3.602$, $p = .013$, $\eta_p^2 = 0.019$] modalities, but not BT [$F(3, 548) = 1.508$, $p = .211$, $\eta_p^2 = 0.008$], iABA [$F(3, 548) = 1.691$, $p = .168$, $\eta_p^2 = 0.009$], and DT [$F(3, 548) = 1.590$, $p = .176$, $\eta_p^2 = 0.011$]. With reference to Table 2, the superscript letters (i.e., a, b, c, and d) indicate significant differences in mean outcome variables (i.e., ASD Care-Related Stress and the AIM scales) across intervention history for a single intervention. With reference to SLT and total AIM scores, for example, post hoc tests revealed that those with a child in the untried or completed categories on average reported a lower total AIM score than those in the ongoing or abandoned categories (all $p < .001$). For OT, those with a child in the ongoing category on average reported higher total AIM scores than those whose child was in the untried ($p = .041$) or completed ($p = .027$) category.

MANCOVA's were performed to determine if differences in the four AIM subscales scores (the dependent variables) across intervention history (the between groups factor) existed within a single intervention. Of the five MANCOVA models, SLT [$F(12, 1447) = 15.66$, $p < .001$, $\Lambda = 0.724$], iABA [$F(12, 1452) = 4.414$, $p < .001$, $\Lambda = 0.91$] and OT [$F(12, 1447) = 3.984$, $p < .001$, $\Lambda = 0.918$] were significant, while BT [$F(12, 1444) = 1.392$, $p = .163$, $\Lambda = 0.970$] and DI [$F(12, 1444) = 1.404$, $p = .078$, $\Lambda = 0.954$] failed to reach significance. For the significant models the results of post hoc tests are presented in the final four columns of Table 2. For parents whose child has either completed or else not engaged SLT there is a general trend for parents to rate their child's symptoms as less severe than those parents whose child is either currently undergoing SLT or had been withdrawn. Additionally, for the communication/language (*re*: AIM 2) subscale, those with a child engaged in SLT report much greater deficits than those who report the intervention was abandoned. For the iABA intervention, those with a child who had been withdrawn from the intervention had a greater mean communication/language (*re*: AIM 2) subscale score than those who had never tried the intervention. Finally, for OT there was a scattering of significant differences generally indicating that parents of children currently engaging OT rated their child's symptoms as more severe than those parents whose child had never engaged OT.

ASD Care-Related Stress and Intervention History

Across the five interventions there is a trend towards lower parenting stress ratings for individuals whose child was in either the untried or completed categories. For SLT, a one way ANCOVA controlling for parent age, education, and age of child was significant [$F(3, 548) = 11.803$, $p < .001$, $\eta_p^2 = 0.061$], with those in the untried or completed categories reporting significantly less ASD care-related stress on average than those in the ongoing or abandoned categories (all $p < .001$). Statistical significance was also noted for OT [$F(3, 548) = 4.307$, $p = .005$, $\eta_p^2 = 0.023$], with those in the untried category reporting on average lower care-related stress than those in the ongoing ($p = .025$) or abandoned ($p = .009$) categories. Finally, for BT [$F(3, 548) = 1.898$, $p = .129$, $\eta_p^2 = 0.010$], iABA [$F(3, 548) = 1.086$, $p = .371$, $\eta_p^2 = 0.014$], and DT [$F(3, 548) = 1.666$, $p = .173$, $\eta_p^2 = 0.009$] statistical significance was not noted.

Table 2 Mean scores for ASD Care-Related Stress Scales, the four AIM subscales and the AIM total score for the five intervention types

	n	Stress	Total AIM	AIM1	AIM2	AIM3	AIM4
SLT: All	385	34.57	75.66	24.75	15.62	19.62	15.68
a. Untried	200	30.7[b,c]	66.05[b,c]	23.63	10.9[b,c]	17.92[b]	13.59[b,c]
b. Ongoing	129	38.53[a,d]	83.15[a,d]	26.25[c,d]	19.09[a,c,d]	20.68[a,d]	17.14[a,d]
c. Abandoned	183	34.16[a,d]	75.57[a,d]	24.77[b]	15.12[a,b,d]	19.93[d]	15.75[a,d]
d. Completed	73	28.59[b,c]	62.64[b,c]	22.03[b]	10.75[b,c]	16.93[b,c]	12.93[b,c]
BT: All	285	34.5	73.68	25.25	13.67	19.24	15.53
a. Untried	299	32.02	71.03	23.51	14.29	18.81	14.4
b. Ongoing	85	36.29	75.65	25.21	14.95	19.56	15.91
c. Abandoned	161	34.15	73.03	25.27	13.14	19.21	15.41
d. Completed	38	32.03	71.63	25.11	12.89	18.55	15.08
iABA: All	78	35.5	77.44	23.67	17.21	20	16.56
a. Untried	505	32.88	71.48	24.46	13.48[c]	18.86	14.69
b. Ongoing	22	38.45	77.77	23.77	18.00	20.41	15.59
c. Abandoned	49	33.59	76.75	23.29	16.71[a]	19.92	16.84
d. Completed	7	39.57	81.14	26	18.14	19.29	17.71
OT: All	370	34.79	73.68	24.81	14.64	18.87	15.37
a. Untried	211	30.54[b,c]	69.91[b]	23.55	12.85[b]	19.27	14.23[b]
b. Ongoing	114	37.16[a]	77.85[a,d]	25.02	17.00[a,d]	19.72[d]	16.11[a]
c. Abandoned	202	33.95[a]	72.69	24.7	13.91	18.89	15.2
d. Completed	51	32.82	68.54[b]	24.65	12.33[b]	17.12[b]	14.43
DI: All	234	34.69	73.70	24.45	14.76	19.37	15.12
a. Untried	343	32.27	71.41	24.29	13.46	18.83	14.84
b. Ongoing	101	35.38	75.35	24.83	15.69	19.65	15.18
c. Abandoned	106	34.92	74.52	24.63	14.53	19.76	15.6
d. Completed	24	30.83	62.73	21.83	11.46	16.46	12.96

Means are presented for parents whose child had engaged the intervention at some point in time (all), had never engaged the intervention (a=untried), were currently engaging the intervention (b=ongoing), had engaged the intervention but been prematurely withdrawn (c=abandoned), or had successfully completed the intervention (d=completed). Mean values followed by superscript letters (i.e., a–d) flag statistically significant differences between that level of intervention history and that level associated with letter (*re*: column one)

AIM 1 restricted/ritualised behaviour; *AIM 2* communication/language; *AIM 3* social/emotional reciprocity; *AIM 4* odd/atypical behaviours

Impact of Number of Interventions

Visual inspection of Table 3 indicates that across all measures there is a general trend for mean AIM scores to increase as the number of interventions engaged in past or presently increases. One-way ANCOVAs indicated significant differences exist across number of interventions engaged for both the total AIM [$F(5, 536) = 5.402$, $p < .001$ $\eta_p^2 = 0.049$] and ASD Care-Related Stress [$F(5, 534) = 8.071$, $p < .001$, $\eta_p^2 = 0.072$] measures. Bonferroni corrected post hoc tests revealed that the mean total AIM score for five interventions was significantly higher than those reported for 0, 1, 2, or 3 interventions. The same result was found for the ASD Care-Related Stress Scale, with the additional result that reported stress for those whose child had engaged four interventions was greater than those whose child had done only one or no interventions (all $p < .05$).

These two analyses were refined by considering the number of interventions currently being undertaken by the participant's child (Table 3: bottom half). For the total AIM score significance was again obtained [$F(4, 547) = 7.431$, $p < .001$ $\eta_p^2 = 0.052$], with post hoc tests indicating a lower mean score for those whose child had never engaged an intervention than those who reported their children were currently engaging 1, 2, 3, or 4 of the five mainstream interventions. For the ASD Care-Related Stress measure, those parents with children not currently engaging an intervention reported lower mean stress scores than those currently engaging 3 or 4 interventions [$F(5, 536) = 5.402$, $p < .001$ $\eta_p^2 = 0.049$].

Table 3 Mean parent-rated child ASD symptom severity and ASD Care-Related Stress categorised as either the number of interventions that have been engaged in the past and present (top half of table) or are currently being engaged (bottom half of table)

Past and present	Number of interventions					
	0 ($n=23$)	1 ($n=76$)	2 ($n=157$)	3 ($n=170$)	4 ($n=104$)	5 ($n=40$)
AIM 1	24.3 (6.4)	22.8 (6.4)	24.2 (6.5)	25.0 (7.4)	24.4 (7.4)	27.8 (6.2)
AIM 2	11.4 (4.1)	11.7 (5.3)	13.7 (5.9)	15.4 (5.9)	14.9 (5.8)	19.2 (5.9)
AIM 3	18.7 (5.9)	18.5 (6.7)	18.8 (6.5)	19.0 (6.7)	19.46 (6.5)	22.7 (7.2)
AIM 4	13.6 (4.1)	14.1 (4.3)	14.4 (4.3)	15.5 (5.1)	15.4 (4.9)	20.4 (3.7)
Total AIM	68.0 (17.1)	67.1 (17.8)	71.1 (19.5)	74.9 (19.6)	74.2 (19.9)	90.1 (16.6)
Stress	30.2 (12.1)	30.0 (11.7)	32.3 (11.8)	34.6 (12.2)	35.9 (11.8)	43.6 (8.9)
Currently	0 ($n=287$)	1 ($n=160$)	2 ($n=84$)	3 ($n=30$)	4 ($n=9$)	5 ($n=0$)
AIM 1	23.5 (6.8)	25.3 (7.0)	24.9 (6.7)	24.2 (6.9)	29.4 (4.2)	–
AIM 2	12.1 (5.1)	14.9 (6.0)	16.3 (5.9)	20 (5.1)	21.7 (3.0)	–
AIM 3	18.5 (6.5)	19.3 (6.5)	19.8 (6.9)	20.6 (7.9)	22.8 (6.7)	–
AIM 4	14.2 (4.3)	15.4 (5.4)	15.7 (4.6)	17.0 (4.3)	19.2 (4.7)	–
Total AIM	68.4 (18.1)	74.7 (20.5)	76.7 (20.5)	81.8 (18.8)	93.1 (12.4)	–
Stress	30.6 (12.2)	34.8 (11.8)	36.9 (9.9)	38.4 (11.0)	44.0 (11.7)	–

Standard deviations are presented to the right of means in parentheses

AIM 1 restricted/ritualised behaviour; *AIM 2* communication/language; *AIM 3* social/emotional reciprocity; *AIM 4* odd/atypical behaviours

Two MANCOVAs were employed to analyse the relationship between the number of interventions that a child had been exposed to and the four AIM subscales. Considering first the reported number of interventions engaged past and present (Table 3: top half), a significant model was obtained [$F(20, 1768)=4.234$, $p<.001$, $\Lambda=0.856$] with Bonferroni corrected post hoc tests indicating differences in the communication/language [$F(5, 562)=10.886$, $p<.001$ $\eta_p^2=0.092$] and odd/atypical behaviours [$F(5, 547)=7.630$, $p<.001$ $\eta_p^2=0.066$] subscales. Post hoc comparisons also indicated that communication/language scores were significantly higher when five interventions were engaged than when compared to four-or-less. Additionally, those parents engaging zero or one intervention with their child on average reported lower communication/language deficits than those who had engaged three or four interventions. Mean odd/atypical behaviours scores were higher for those who had tried (past or present) five interventions than four-or-less interventions.

When only considering the number of interventions actively engaged at the time of responding to the survey, a significant model was obtained [$F(16, 1662)=5.281$, $p<.001$, $\Lambda=0.859$], with Bonferroni corrected post hoc tests again indicating differences in the communication/language [$F(4, 569)=19.367$, $p<.001$ $\eta_p^2=0.124$] and odd/atypical behaviours [$F(4, 569)=4.441$, $p<.001$ $\eta_p^2=0.031$] subscales. Turning first to the communication/language subscale, those reporting no current engagement of an intervention reported on average lower levels of language deficits than those currently engaging one-or-more interventions.

Additionally, those currently engaging their child in one-of-the-five mainstream interventions reported lower subscale scores than those currently engaged in three or four interventions. For the odd/atypical behaviours subscale, those reporting no current intervention engagement had mean subscale scores that we significantly lower than those concurrently engaging four interventions.

Discussion

The expected positive correlations between parenting stress and ASD core symptoms replicates previous reports in the literature (e.g., Stuart and McGrew 2009). The main finding of the current study was that parental perceptions of their child's ASD core symptoms depends, for some interventions, upon where the child sits within an intervention's cycle. For SLT and OT, average total AIM scores were higher for children in the ongoing and abandoned categories than the untried and completed categories. This maybe because those in the Untried category have mild symptoms and hence do not require SLT or OT as part of their therapeutic programmes (see Shepherd et al. 2017), or less likely, that their parents may potentially lack insight into their child's symptoms and hence do not see the need to engage interventions. Alternatively, higher total AIM scores in the ongoing category may reflect parent's justifying the need for intervention engagement, or simply by being made more aware of their child's symptoms as part of the therapeutic process. Otherwise, parents may be just as adept at

assessing symptoms as clinicians (Miller et al. 2017), and the higher symptom scores for children in either of the ongoing or abandoned category may simply reflect the child's core symptom profile and hence the reason why the interventions were engaged in the first place. Given that symptom change is considered the key outcome measure of therapies, it is interesting to note the lack of significant differences in mean symptom ratings across intervention history within the BT, iABA, and DI approaches. This lack of significance may be a result of deficiencies in statistical power, or due to the cross-sectional nature of the study.

Considering SLT and OT, and looking across the four AIM subscales, it appears that parent's with a child in the ongoing or abandoned categories tend to rate their symptoms higher than if the child is in the untried or completed category. Here, the same considerations reported above for the total AIM scale hold. Comparing the ongoing and abandoned categories for SLT, the higher mean communication/language subscale scores for the ongoing group suggests that even incomplete SLT programmes have a positive impact. Of relevance, Shepherd et al. (2017) report that of parents who cease their child's involvement in SLT, 29% do so due to a cessation of government funding, while only 12% do so because they believe the intervention is ineffective. For the iABA intervention, those in the untried category had significantly lower mean communication/language subscale scores than those in the abandoned category. Data from Shepherd et al. (2017) suggest that, for this sample, those who engage iABA therapy largely do so because their child's language-related symptoms are severe, and so this group would represent the higher end of symptom severity. Furthermore, iABA therapy is usually abandoned for financial reasons rather than concerns over effectiveness.

Turning now to the mean ASD Care-Related Stress Scale across intervention history, it was noted that for both the SLT and OT mean stress scores were lower in those whose child was in the untried category compared to those in the ongoing and abandoned categories. This finding may be explained by the aforementioned result that across these two interventions the lower mean ASD symptom scores were for those in the untried category. Consequently, parenting stress scores ought to also follow this trend, as child ASD-related symptoms in this sample were strongly correlated with stress scores (see Table 1). Alternatively, the very act of currently being engaged in an intervention may increase parenting stress as therapists begin to direct parent's to 'choose their battles' and rally them to tackle their child's problem behaviours. For parents abandoning interventions, higher mean stress scores may come about from the immediate need to select alternative treatment approaches whose efficacies are contested even within the scientific domain. The lack of significance in mean ASD Care-Related Stress Scores across intervention history for the iABA, BT, and DI mirrors the

findings reported above for the total AIM score. This finding likewise suggests that because care-related stress is strongly linked to child symptom severity, then no differences would be expected.

The finding of a positive correlation between the number of interventions engaged, irrespective of their temporal patterns, and perceived ASD care-related stress and child symptoms is not unexpected (e.g., Karst and Van Hecke 2013). In terms of stress, previous studies have indicated that indirect childcare tasks such as the day-to-day coordinating of interventions and seeking access to government-funded programmes creates as much, or more, stress than direct caring tasks such as meal-time or bed-time activities (Plant and Sanders 2007; Shepherd et al. 2017). Thus, as the number of currently engaged interventions increase, so too does self-report ASD care-related stress, suggesting that parents who enrol their child in multiple interventions may require more social support. The fact that this relationship is robust even with the inclusion of past interventions may be due to the incurable nature of ASD, and that although multiple treatments have been attempted, their effectiveness has been limited.

Finally, the finding that parents who have never subjected their child to an intervention report lower stress levels maybe be due to their child having less severe core symptoms (i.e., 'high functioning') which negate the need for therapy. This is borne out by the AIM data, indicating that perceived symptom severity increases with the number of interventions engaged currently and in the past. An additional finding of note, that over half the sample ($n = 287$) were not currently engaging their child in an intervention, poses an objective for future research, both in terms of replication and explanation.

Limitations

The limitations reported in Shepherd et al. (2017) apply to the presently reported analyses. In addition, disentangling the effects of multiple interventions potentially occurring at the same or different times is an undertaking fraught with difficulty. Consequently, the data reported here are only analysed within, and not between, interventions.

Summary

Intervention engagement would be expected to impact parents both in terms of the stress associated with participating in the intervention, and also the degree to which their child's target symptoms are modified by interventions. This strong bi-directional relationship between parental stress and their child's ASD symptoms has been reported elsewhere, with Karst and Van Hecke (2013) arguing that both are important

when considering the effectiveness of interventions. We found that parents of children with ASD who are currently engaging some mainstream interventions (i.e., SLT and OT) reported higher stress levels and perceived their child's symptoms as more severe than parents not currently engaging. This has implications for practise in as much as parents report that they will remove their child from interventions if they feel that symptoms are not being reduced, or if the intervention is overwhelming them (Miller et al. 2012). It is therefore important to target parents during therapeutic processes to ensure their stress is being adequately managed and that even small reductions in symptoms are regularly reported to parents to build staying power.

Compliance with Ethical Standards

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

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