



Disagreement between mothers' and their sons' with an ASD on ratings of Sensory Features



Vicki Bitsika^{a,1}, Christopher F. Sharpley^{a,b,*,1}, Richard Mills^{a,c}

^a Bond University, University Drive, Robina, Queensland 4229, Australia

^b Brain-Behaviour Research Group, University of New England, Queen Elizabeth Drive, Armidale, New South Wales 2351, Australia

^c Department of Psychology, University of Bath, 1 West North, Bath BA2 7AY, UK

ARTICLE INFO

Article history:

Received 2 June 2015

Received in revised form 18 September 2015

Accepted 21 September 2015

Available online 18 November 2015

Keywords:

ASD

Sensory Features

Children

Adolescents

ABSTRACT

To test for the presence of any significant differences in the assessment of Sensory Features (SF) given by the two sources, 135 boys with an Autism Spectrum Disorder (ASD) were self-assessed and also assessed by their mothers using versions of the Sensory Profile (Dunn, 1999) to measure four sensory quadrants and six sensory domains. MANOVA indicated that mothers rated their sons' SF significantly less severely than the boys did themselves and that younger boys received more severe ratings from their mothers than older boys did. There was a significant interaction between source of assessment and age of the boys, due to the mothers assessing their older sons' SF less severely than their younger sons but the sons showing the opposite trend in self-ratings. These findings challenge the validity of clinical assessments of SF that are based solely upon parents' ratings and argue for a more comprehensive approach to diagnosing the presence and severity of SF in boys with an ASD.

© 2015 Published by Elsevier Ltd.

1. Introduction

1.1. ASD and sensory sensitivity

As well as persistent deficits in social communication and social interaction, plus restricted and repetitive behaviour patterns, children with an Autism Spectrum Disorder (ASD) may also exhibit over- or under-reactivity to sensory inputs (APA, 2013), commonly grouped under a construct called Sensory Features (SF) (Schaaf & Lane, 2015). SF refers to the way that people process their sensory environments and one major model of this process has been developed by Dunn and colleagues (Brown, Tollefson, Dunn, Cromwell, & Fillion, 2001; Dunn, 1999). That model describes a relationship between two continua: one for the neurological threshold that people have in regard to the sensory stimuli they encounter and the other in regard to their behavioural responses to those stimuli. The intersections between these two continua form four quadrants that also encompass nine factors related to these quadrants (Dunn & Brown, 1997). From responses to the items in scales designed to measure these factors, people may be allocated to a sensory processing preference, which is a stable trait (Brown et al., 2001) that may be quantified in terms of the four quadrants of: sensory sensitivity (wherein the individual is easily distracted by more recent stimuli and may be hyperactive), Sensation Avoiding (individuals withdraw from stimuli and may engage in

* Corresponding author.

E-mail addresses: vbitsika@bond.edu.au (V. Bitsika), CSharpl3@une.edu.au (C.F. Sharpley), rm874@bath.ac.uk (R. Mills).

¹ Senior authorship is shared by VB and CFS.

disruptive behaviours), low registration (indicated by lack of interest and low affect), and sensation seeking (active and engaged with the environment).

Extremes in SF are more common in children with an ASD compared to their non-ASD peers, as indicated by a meta-analysis of 14 studies (Ben-Sasson et al., 2009). Ausderau et al. (2014) noted that SF was stable over one year in 91% of 884 children with an ASD, confirming the comment by Brown et al. (2001) that SF is a stable trait. SF in people with an ASD is associated with ASD severity (Tavassoli, Miller, Schoen, Nielson, & Baron-Cohen, 2014) and difficulties in communication and general maladaptive behaviour including repetitive behaviour (Boyd et al., 2010). There is some evidence that adult females show more lifetime symptoms of SF (Lai et al., 2011) but also some data suggesting that SF is not well explained by gender, IQ or ASD severity in children (Lane, Molloy, & Bishop, 2014), suggesting that SF deserves specific attention when assessing and diagnosing ASD (Schaaf & Lane, 2015).

1.2. Source of SF ratings

Although some studies have collected SF data from young people with an ASD themselves (e.g., De la Marche, Steyaert, & Noens, 2012) (who found no significant differences between the self-reports of SF from adolescents with and without an ASD for low registration and sensory sensitivity), most studies of SF in children with an ASD (including all 14 reports in Ben-Sasson et al.'s meta-analysis) have used parental reports exclusively. However, the SF scales such as the Sensory Profile (Dunn, 1999) to be completed by caregivers include items such as "Dislikes riding in a car", "Enjoys strange noises" and "Prefers to be in the dark", all of which make assumptions about the internal states of the children being assessed. This may be a possible source of invalidity when a non-ASD parent makes an assessment of the internal state of a child with an ASD (or, in fact, when any parent makes an assessment of a child). Like any other question about another person's internal state, responses from parents may represent their own (biased) interpretation of their child's state rather than the child's actual state, particularly since it is evident that parents' own emotional state (anxiety) has been shown to influence the ratings they provide of the same emotional state in their children with an ASD (Bitsika, Sharpley, Andronicos, & Agnew, 2015).

In addition, parents may also become habituated to specific SF-related behaviours exhibited by their child and thus come to under-value them. In summarizing this issue, Schaaf and Lane (2015) commented that the current assessment protocols for SF were over-reliant upon parent reports. Although those authors suggested using 'proxy' reports of SF, it may be that children with an ASD can also contribute to their assessment by providing their own self-ratings of their SF. As an example of how children might provide self-evaluations of their own internal states, a recent paper (Bitsika & Sharpley, 2015) demonstrated significant differences in sons' self-ratings vs those given by their mothers for the presence and severity of 7 anxiety disorders in 140 boys with an ASD, and a previous report showed that the self-reports of anxiety given by a sample of boys with an ASD were significantly correlated with their salivary cortisol concentrations but the ratings given by their parents about the boys were not similarly associated with cortisol (Bitsika, Sharpley, Sweeney, & McFarlane, 2014). These findings suggest some value in collecting self-ratings of SF from children as well as from their parents and it should be noted that self-reports of SF have been previously collected from adolescents with an ASD (Brown & Dunn, 2006).

Similarly, the collection of self-report data on an aspect of SF from young children with an ASD has been undertaken previously using the Touch Inventory for Elementary School Aged Children (Royeen, 1986; Royeen & Fortune, 1990), with a strong argument made for including both child- and parent-reports of the former's tactile defensiveness (Bennett & Peterson, 1995; Hotz & Royeen, 1998). These findings argue for the consideration of the self-assessments that children with an ASD make about their SF as worthwhile parts of the entire assessment process. However, the issue of how much agreement there is between parents' and children's assessments of SF remains open, and has not previously been reported for SF among children as well as adolescents who have an ASD.

1.3. Focus of the research

The presence of significant differences between parents' and children's ratings of the latter's SF could have important clinical and research implications because accurate assessment of SF is required for reliable treatment planning. Although no suggestion is made at this stage as to which of the two sources of assessment would be most valid, the extent of significant differences between the SF ratings given by parents about their children and the self-ratings given by those children themselves needs to be determined. Comparison of parents' and children's responses on a standardized measure of SF may provide insight into the nature and extent of variability between these two perspectives, with ramifications for the body of literature on SF that has been mentioned above as well as treatment planning for those children who are deemed to have difficulties in SF. Therefore, this study investigated the presence of agreement/disagreement between parents' and children's reports of SF in children with an ASD using a well-established measure of SF that has parallel forms for caregivers and the child themselves. Because there is an established gender bias in the prevalence of ASD (APA, 2013), this study focused upon young males only.

Download English Version:

<https://daneshyari.com/en/article/369985>

Download Persian Version:

<https://daneshyari.com/article/369985>

[Daneshyari.com](https://daneshyari.com)