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Parental beliefs towards the inclusion of autistic children in mainstream schools

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Abstract

Research has examined teacher attitudes, knowledge, and stigma towards inclusion of autistic children in mainstream schools. Less focus has been given to these beliefs among parents. This is problematic as parents are important in the implementation of inclusion and fostering a positive school environment. The current study examined differences in autism attitudes, knowledge, stigma, and inclusive education attitudes (core perspective; expected outcomes; classroom practices) among parents with and without an autistic child; The study also investigated whether autism knowledge, attitudes and stigma predicted inclusion attitudes. 185 parents in the UK (52% had an autistic child) completed questionnaires measuring these variables. Parents of an autistic child had significantly higher core perspective inclusive attitudes than parents without an autistic child. However, this group also reported more beliefs that parents of autistic children are stigmatised. For all parents, core perspective inclusive attitudes were predicted by autism attitudes and stigma towards parents of autistic children. Predictors of expected outcomes and classroom practices inclusive attitudes differed between groups. Findings highlight the need for parental attitude research to be disability-specific and consider different aspects of inclusive attitudes. Parent education to enhance inclusive attitudes should be tailored for distinct parent groups and contact interventions should be considered.

Autism Spectrum disorder (autism) is a neurodevelopmental disorder which is broadly characterised by difficulties in communication and social interactions skills as well as restricted and/or repetitive behavioural patterns (American Psychiatric Association, 2013). Autistic individuals may find the integration, processing and communication of information challenging which can impact upon the initiation and maintenance of relationships (Freeman et al., 2017). It is important to note though that diagnosis impacts individuals differently (Charman, 2014). Symptoms range from difficulty understanding another's feelings to not being unable to communicate (Abu-Hamour & Muhaidat, 2014). Evidence has suggested that compared with other disabled groups, those with an autism diagnosis may have poorer outcomes in domains, such as living independently, education and employment, (Sosnowy et al., 2017). This may be a result of the expectation that autistic individuals should fit into neurotypical environments that do not meet their needs (Hsiao et al., 2013). Society must become more inclusive to allow autistic individuals to recognise and demonstrate their strengths. Inclusion in educational contexts for autistic individuals is therefore of importance.

The role of education for autistic children's development is recognised by policy across the world (United Nations Convention on the Rights of the Child, 1989, 2006; UNESCO Salamanca Statement, 1994; Convention on the Rights of Persons with Disabilities, 2006, 2014). Such legalisation advocates for inclusive education, that is, the inclusion of all children within their local mainstream school regardless of (dis)ability. Inclusion aims to enhance the acceptance, participation, and educational experience of children with disabilities in mainstream schools (Lindsay, 2007). For autistic children, the interplay of cognitive, social, and sensory profiles in autism means that support needs vary (Tullis & Seaman-Tullis, 2019). Schools must be able to support autistic children's transition into education, engagement with the curriculum and development of communication language, and play skills (Simpson 2004).

Although some have argued that the inclusion of disabled children in mainstream classrooms maximises learning and development (Starr et al., 2001), this has not consistently been reported. Literature which has examined the inclusion of autistic children in mainstream schools supports such assertions. Some evidence suggests that autistic children have fewer friendships, report more loneliness, and are less socially included within the school's social structure as compared to their neurotypical peers (Falkmer et al., 2012; Kasari, et al., 2011). This research suggests there is need to consider what influences the success of inclusion. It has been suggested that attitudes of key stakeholders may play a role (Bopota et al., 2020; Wilson et al., 2019).

Attitude has been defined as an individual's evaluation of an object or behaviour and can influence actions towards an attitude target or whether a behaviour is performed (Eagly & Chaiken, 1993). Research using social cognition theories (e.g. Ballantyne et al., 2022; Wilson et al., 2016) has shown that teachers' attitudes towards inclusion impact upon classroom practices. As such, an abundance of research has examined school staff attitudes towards inclusive education for disabled children (overviews by Avramidis & Norwich, 2002; van Steen & Wilson 2020). Less research has focused on parental attitudes towards inclusion. This is problematic given that parents, both of neurotypical children and neurodiverse children, play an important role in the success of inclusive education (Abu-Hamour & Muhaidat, 2014; Leyser & Kirk, 2004) and in fostering a positive school environment (Ainscow, 1997). Parents who do not agree with inclusion may have a negative impact on their child's beliefs and behaviour towards disability (de Boer et al., 2010). Further, research suggests parents and teachers hold different views about inclusion relating to the appropriateness of support provided, the benefits and social context for learning (Mathur & Koradia, 2018). Thus, it is not enough to consider the attitudes of teachers alone.

Findings of the limited studies examining parent attitudes towards inclusion are mixed. Some show that parents are positive (Lui et al., 2015; Sosu & Rydzewska, 2017) or neutral (Abu-Hamour & Muhaidat, 2014; Mathur & Koradia, 2018) towards inclusive education. de Boer et al.'s (2010) review showed that five studies identified positive parental attitudes with the remaining five reporting neutral attitudes. However, the review also showed parents of disabled children were less likely to report a positive attitude towards inclusion and were least positive about this when considering inclusion of their own child. They showed concerns relating to their child's emotional development, individual instruction, and support within mainstream schools. Moreover, research has also shown that their child's diagnosis made parents feel stigmatised and rejected by others (Broady et al., 2017; Lalvani, 2015; Mitter et al., 2019). However, it is unclear whether this relates to perceived stigma towards the disorder or stigma towards the parent as a carer.

It is important to note that some research suggests parents of neurotypical children are more likely to hold more positive attitudes towards inclusion and see the benefits of this (de Boer et al., 2010) whilst others report no differences in attitudes between groups (Bopota et al., 2020). Such inconsistent findings underpin the need for further investigation of both groups of parents. Of note is that previous research has focused on disabilities in general rather than on autism specifically. As attitudes towards inclusive education are disability-specific (Leyser & Kirk, 2004; Paseka & Schwab, 2020) and autistic children may face unique barriers to mainstream schools, there is a need for research to examine parental attitudes towards the inclusion of autistic children. Further, research is needed which examines different aspects of inclusive attitudes. Stoiber et al. (1998) argued for the need to examine core perspectives, expected outcomes and classroom practices as outlined in Table 1.

[Table 1]

When investigating the nature of parents' inclusive attitudes, studies have also attempted to examine the mechanisms which underlie these. For example, research suggests that attitudes towards inclusion are related to the attitude towards the disability (Avramidis & Norwich, 2002). Furthermore, knowledge is important in attitude formation (Forlin, & Sin, 2010) and evidence suggests that teachers with more knowledge are more positive about inclusion (de Boer et al., 2011). Lui et al (2015) found that parents who were more knowledgeable about policy and support services were more positive towards inclusion, but this study did not consider knowledge of disability. This is important given that Toye et al. (2019) reported that teacher knowledge of disability was related to stigma towards the disability and this in turn affected attitudes towards inclusion. Stigma is described as a set of negative beliefs held by an individual and is an adverse reaction to someone that is evaluated as different (Link & Phelan, 2001). Parents of autistic children experience more associated stigma related to their child's diagnosis than parents of children with other disabilities, and this has a significant role in making life more difficult for parents (Kinnear et al., 2016). More research is needed to examine the role of autism attitudes, knowledge, and stigma among parents. This would have implications for intervention aimed at enhancing inclusive attitudes.

Current Study

The study examined differences in autism attitudes, knowledge (diagnosis; etiology; treatment), stigma (towards autism and towards parents of autistic children) and inclusive education attitudes (core perspective; expected outcomes; classroom practices) among parents with and without an autistic child. Given inconsistent findings in previous research, no hypothesis was made with regards to whether parents with (or without) an autistic child would be more positive. The study also investigated whether parents' autism attitude, knowledge and stigma predicted attitudes towards inclusive education. We expected parents

with higher levels of autism knowledge, more positive autism attitudes and who perceived less autism stigma and stigma towards parents of autistic children would have more positive inclusive attitudes (core perspective; expected outcomes; classroom practices).

[Figure 1 about here]

Methods

Design

The study was cross-sectional and correlational. Self-report questionnaires measured demographics (gender; age; autism diagnosis), inclusive education attitudes (core perspectives; expected outcomes; classroom practices), autism knowledge (diagnosis; etiology; treatment), autism attitudes, stigma towards autism and stigma towards parents with an autistic child.

Participants

The study recruited 185 UK participants (93.2% female). The sample size was appropriate based on Tabachnick and Fidell's (2013) participant calculation and a power analysis using G* Power. 52.1% of the sample were parents of an autistic child. 47.9% of the sample were parents of a neurotypical child. Participants' age ranged from 20-74 (Mean=42.21, SD=9.60).

Measures

Attitudes towards inclusion. Attitudes towards inclusion of autistic children in mainstream schools was measured using the My Thinking About Inclusion Scale (MTAI; Stoiber et al., 1998). The MTAI is a 28-item scale which measures three dimensions of inclusion (core perspectives; expected outcomes; classroom practices). The scale was adapted to focus on the inclusion of autistic children. Adapting the scale involved changing general

terms such as ‘children with disabilities’ to ‘autistic children’. Core perspectives attitudes were measured using items such as ‘Autistic students have the right to be educated in the same classroom as typically developing students’. Expected outcomes attitude was measured using items such as ‘Inclusion is socially advantageous for autistic children’. Classroom practice attitudes were measured with items such as ‘Autistic children monopolize teachers’ time’. Participants responded using a 5-point Likert scale (1=*Strongly Agree*; 2=*Agree*; 3=*Undecided/Neutral*; 4=*Disagree*; 5=*Strongly Reject*). Mean scores for each scale were calculated. A lower score suggested a more positive attitude. The scale showed good reliability (core perspectives $\alpha=.81$; expected outcome $\alpha=.74$; classroom practices $\alpha=.69$).

Autism Knowledge. Knowledge of autism was assessed using The Autism Stigma and Knowledge Questionnaire (ASKQ; Harrison et al., 2017). The ASK-Q assesses diagnosis, etiology and treatment of autism across 48 items. Knowledge of diagnosis was measured using 18 items such as ‘Many autistic children have trouble tolerating loud noises or certain types of touch’ ($\alpha=.97$). Knowledge of etiology was assessed through 16 items such as ‘Autism is a brain-based disorder’ ($\alpha=.98$). Knowledge of treatment was measured using 14 items such as ‘Medication can alleviate the core symptoms of autism’ ($\alpha=.97$). Participants were asked to agree or disagree with each statement. Scores were calculated based on the number of correct responses. Higher scores reflected more knowledge.

Autism Attitudes. The Parental Attitudes Toward Children with Handicaps Questionnaire (Rosenbaum et al., 1988) was modified to assess attitudes towards autism. Given the negative connotations associated with the word ‘handicap’ (Cavender et al., 2008), this was not used in any participant documents or questionnaires. The scale comprised 30 statements such as ‘I wouldn’t know what to say to an autistic child’ and ‘Autistic children are able to make new friends’. Participants responded on a 5-point Likert scale ranging from

Strongly Disagree to *Strongly Agree* ($\alpha=.87$). A mean of item responses was calculated for each participant. Higher scores suggested a more positive attitude towards autistic children.

Stigma towards Autism. Stigma towards autism was assessed using Kellison et al. (2010) Stigma Questionnaire. Although items focus on ADHD, each is relevant to stigma towards Autism and as such, the scale was modified to relate items to autism. We confirmed the appropriateness of the items for an autistic population in a previous pilot study (Seagrave & Wilson, 2019). Example items are ‘Most people think that an autistic person is damaged’ and ‘Some people who learn of another person having Autism grow distant’. Participants were asked to respond using a 4-point Likert scale; 1=*Strongly Disagree*; 2=*Disagree*; 3=*Agree*; 4=*Strongly Agree*. Mean responses were calculated with higher scores reflecting more Autism stigma ($\alpha=.94$).

Stigma Towards Parents of Autistic Children. Two items developed by Mak and Whok (2010) were used to assess perceptions of stigma towards parents of autistic children. These were ‘Most people would not be friends with parents with an autistic child’ and ‘Most people stigmatize parents of autistic children’. A 4-point Likert scale was used (1=*Strongly Disagree*; 2=*Disagree*; 3=*Agree*; 4=*Strongly Agree*). A mean of item scores was calculated for each participant ($\alpha=.78$). Higher scores reflected higher levels of stigma towards parents of autistic children.

Procedure

Ethical approval was obtained from the home institution’s ethics committee. Data was collected online using survey software called Questionpro. The study was promoted on social media platforms (e.g., Twitter; Facebook). Evidence suggests that this is an effective recruitment strategy which is time and resource efficient (Baltar & Brunet, 2012; McRobert et al., 2018). Participants were also asked to share study information with others to facilitate a

snowballing recruitment technique (Allen, 2017). The questionnaire completion took approximately 10 minutes.

Data Analysis

Multiple Analysis of Variance (MANOVA) was conducted to determine mean differences in scores of parents with and without an autistic child on autism attitudes, knowledge, stigma and inclusive education attitudes. Correlation and regression analyses were used to examine the predictive validity of autism attitudes, knowledge, and stigma on attitudes towards each dimension of inclusive education. The data file was split to examine predictors separately for parents with and without an autistic child given evidence which suggests parents groups may hold different beliefs and thus different mechanisms may drive attitudes towards inclusion (de Boer et al., 2010).

Results

Differences in attitudes, knowledge, and stigma between parent groups

The means, standard deviations and group comparisons for autism attitudes, knowledge (diagnosis, etiology; treatment) stigma (autism stigma and stigma towards parents of autistic children) and inclusive education attitudes (core perspectives, expected outcomes; classroom practices) are shown in Table 2. MANOVA determined whether there were significant differences in variables as a result of parent group. Parents of an autistic child had significantly higher core perspective inclusive education attitudes than parents without an autistic child ($F(1, 183)=7.58, p=.007$). Further, parents of an autistic child had significantly more knowledge of autism etiology than parents without an autistic child ($F(1, 183)=12.25, p=.001$). Finally, parents of an autistic child perceived more stigma towards parents of autistic children than parents without an autistic child ($F(1, 183)=12.25, p=.001$). It should be noted though that the size of some of these differences was relatively small.

[Table 2]

Autism attitudes, knowledge, stigma, and inclusive education attitudes

We examined the relationships between variables using bivariate correlations. We split the data by parent group (those of an autistic child and those without) to determine variable relationships for both groups.

Parents of an autistic child. Results showed that core perspective inclusive attitudes were significantly correlated with autism attitudes ($r=-.21$ $p=.042$), autism stigma ($r=.24$ $p=.019$) and stigma towards parents of autistic children ($r=.22$ $p=.033$). Participants who had more positive autism attitudes, who perceived less stigma towards autism and to parents of autistic children were more likely to have a positive core perspective inclusive attitude. Analysis also showed that expected outcomes inclusive attitudes were significantly correlated with stigma towards parents of autistic children ($r=.32$ $p=.002$) and knowledge of autism treatment ($r=-.23$ $p=.025$). Participants who perceived less stigma of parents of an autistic child and those who had more knowledge of autism interventions/treatments, had a more positive expected outcome inclusive attitude. We also found significant correlations between classroom practices inclusive attitude and autism attitudes ($r=-.32$ $p=.001$), stigma towards parents of autistic children ($r=.29$ $p=.004$) and knowledge of autism treatment ($r=.27$ $p=.009$). Participants who had a more positive autism attitude and who perceived there to be less stigma towards parents of autistic children had more positive classroom practices inclusive education attitude. However, participants with more knowledge of autism treatment were more likely to have a more negative classroom practices inclusive attitude. Core perspective inclusive attitude was positively correlated with expected outcomes inclusive attitude ($r=.66$ $p<.001$) and classroom practices inclusive attitude ($r=.54$ $p<.001$). Finally,

expected outcomes inclusive attitude was related to classroom practices inclusive attitude ($r=.33$ $p=.001$).

Parents without an autistic child. Correlations showed core perspective inclusive attitudes were significantly correlated with autism attitudes ($r=-.49$ $p<.001$) and stigma towards parents of autistic children ($r=.32$ $p=.002$). Participants with more positive autism attitudes and those who perceived less stigma towards parents of autistic children had more positive core perspective inclusive attitudes. Expected outcomes inclusive attitudes were significantly correlated with participants' autism attitudes ($r=-.38$ $p<.001$). Those with more positive autism attitudes had a more positive expected outcomes inclusive attitude. Finally, the classroom practices domain of inclusive attitudes was significantly correlated with attitudes towards autism ($r=-.31$ $p=.003$) and stigma towards parents of autistic children ($r=.26$ $p=.012$). Core perspective inclusive attitude was correlated with expected outcomes inclusive attitude ($r=.60$ $p<.001$) and classroom practices inclusive attitude ($r=.50$ $p<.001$). Finally, expected outcomes inclusive attitude was related to classroom practices inclusive attitude ($r=.36$ $p<.001$).

Predicting Attitudes Towards Inclusion

To identify predictors of core perspective, expected outcomes, and classroom practices inclusive education attitudes, hierarchical multiple regression was used. For each regression model, knowledge variables were added at Step 1. Belief variables were added at Step 2 (autism attitudes, stigma towards autism and stigma towards parents of autistic children). The model was constructed this way given arguments that knowledge predicts beliefs (Ajzen et al., 2011; de Boer et al., 2011; Forlin, & Sin, 2010). Again, the data file was split to examine predictors of inclusive attitudes separately for both parent groups. See Table 3.

Parents of an autistic child.

Core perspective inclusive attitudes. In relation to core perspective inclusive attitudes, the model accounted for 15% of the variance ($p=.006$). Results showed that participants' beliefs of stigma towards parents of autistic children were a significant predictor of core perspective inclusive attitudes ($\beta=.23$ $p=.040$). Parents who perceived more stigma had less positive core perspective attitudes. Results also showed a borderline effect of autism attitudes ($\beta=-.20$ $p=.050$). Those with more positive autism attitudes had more positive core perspective attitudes.

Expected outcomes inclusive attitudes. The regression model for expected outcomes inclusive attitudes accounted for 14% of the variance ($p=.004$). When all predictors were included in the model, only participants' beliefs of stigma towards parents of autistic children were a significant predictor of expected outcomes inclusive attitudes ($\beta=.37$ $p=.001$). Those who perceived more stigma had less positive expected outcomes attitudes.

Classroom practices inclusive attitudes. The model predicting classroom practices inclusive attitudes accounted for 29% of the variance ($p<.001$). Participants' autism treatment knowledge ($\beta=.25$ $p=.010$), their autism attitudes ($\beta=-.35$ $p=.001$) and beliefs of stigma towards parents of autistic children ($\beta=.35$ $p=.001$) were significant predictors of classroom practices inclusive attitudes. Thus, parents with more positive autism attitudes and perceived less stigma for parents of autistic children had more positive classroom practices inclusive attitudes. However, parents with more knowledge of autism treatment had less positive classroom practices inclusive attitudes.

Parents without an autistic child.

Core perspectives inclusive attitudes. The regression model predicting core perspectives inclusive attitudes accounted for 29% of the variance of ($p<.001$). Participants'

autism attitudes ($\beta=-.46$ $p=.001$) and beliefs of stigma towards parents of autistic children ($\beta=.24$ $p=.030$) were significant predictors of core perspectives inclusive attitudes. Parents with more positive autism attitudes and perceived less stigma towards parents of autistic children had more positive core perspectives inclusive attitudes.

Expected outcomes inclusive attitudes. In relation to expected outcomes inclusive attitudes, the regression model accounted for 18% of the variance ($p=.002$). Only autism attitudes were a significant predictor ($\beta=-.36$ $p=.001$). Participants with more positive autism attitudes had more positive expected outcomes inclusive attitudes.

Classroom practices inclusive attitudes. Finally, the regression model predicting classroom practices inclusive attitudes accounted for 18% of the variance ($p=.006$). Similar to expected outcomes attitudes, only participants' autism attitudes were a significant predictor of classroom practices attitudes ($\beta=-.27$ $p=.011$).

[Table 3]

Discussion

The current study examined differences in autism attitudes, autism knowledge and autism stigma amongst parents with and without an autistic child. The study also considered whether autism attitudes, knowledge and stigma predicted attitudes towards inclusive education (core perspective; expected outcome and classroom practice components). Results showed parents of autistic children had more positive attitudes towards inclusive education in terms of core perspective and had more knowledge of autism etiology than parents without an autistic child. Parents with an autistic child also reported greater beliefs that parents of autistic children are stigmatised.

Our findings suggested that parents of an autistic child had significantly higher core perspective inclusive education attitudes than parents with no autistic child. This means that

parents with an autistic child believed more than other parents that autistic children should be educated in the mainstream classroom and viewed this as best practice. Although this is inconsistent with findings suggesting that parents of disabled children are less likely to support inclusion than parents of neurotypical children (de Boer et al., 2010), it is important to note that attitudes towards inclusion are disability-specific (Leyser & Kirk, 2004; Paseka & Schwab, 2020). Our findings therefore indicate that parental attitudes around what is best educational practice for autistic children may differ from other disabilities. Interestingly though, expected outcomes and classroom practices inclusive attitudes did not significantly differ between groups which supports Bopota et al.'s (2020) assertion that there are no differences in attitudes between parent groups. Such a finding highlights the importance of considering different components of inclusion attitudes. Core perspective attitudes relate to the belief that autistic children have the right to be educated in mainstream classrooms. In contrast, expected outcome attitudes relate to what parents believe will happen as a result of inclusion and if this will be advantageous. In a similar vein, classroom practices attitudes relate to how inclusion impacts upon classroom life and teaching practices (Stoiber et al., 1998). Our findings indicated that attitudes on these components did not differ between parent group. This suggests that while at a higher-level, attitudes relating to whether inclusion is best practice differ between parent groups, attitudes around the outcomes of inclusion and the impact on the classroom do not differ. It may be that when asked about inclusion generally, parents with no autistic child are less positive, but when asked about specific classroom processes, they think similarly to parents with an autistic child.

Our findings also suggested that while there were no differences between groups in levels of autism stigma, perceptions of stigma towards parents of autistic children were higher among parents of an autistic child. This finding is in line with research which has argued that a child's autism diagnosis can make parents feel stigmatised by others (Broady et

al., 2017; Mitter et al., 2019). Parents can experience stigma through exclusion from peers, receiving stereotyped comments, and lack of social support (Liao et al., 2019). Given that scores on this variable were lower in parents without an autistic child, it suggests that while parents with an autistic child may feel stigmatised, others do not actually express stigma towards them. However, the results could also suggest that parents with no autistic child do not understand the stigma experiences of parents with an autistic child. More research is needed to further examine stigma among parents.

For both parent groups, perceived stigma towards parents of autistic children and autism attitudes were predictors of core perspective inclusive attitudes. Participants who perceived more parent stigma and had less positive autism attitudes had less positive core perspective attitudes. This suggests that attitudes relating to what is best practice for autistic children is related to both parent and child factors. In relation to the child, parents must view autism positively to view inclusion as the right educational decision for the child. This supports teacher studies which show the importance of positive disability attitudes in views towards inclusion (Wilson et al., 2019). In addition, parents must believe there is little stigma towards parents of autistic children in order to hold a positive core perspective attitude. This aligns with Kinnear et al. (2015) who argued that stigma can have an important impact on the lives of parents of autistic children. Our results show that parents being accepted within the school community relates to parents' views of inclusion. This suggests that to view inclusion as best practice for the child, the child's family must also be accepted by the school community.

For parents without an autistic child, expected outcome and classroom practices inclusive attitudes were predicted only by autism attitudes. Those with more positive autism attitudes had more positive expected outcomes and classroom practices attitudes. Thus, parents who viewed autism positively were more likely to believe that inclusion would result

in positive outcomes and have a positive impact of classroom life/instructional practices. Beliefs around the disability are therefore important to parents' perceptions of how inclusion works in schools. This extends previous research which focuses only on the nature of parents' attitudes towards inclusion (Bopota et al., 2020; de Boer et al., 2010). Our findings show not only what predicts attitudes but also what aspects of inclusion this relates to.

In contrast, for parents of an autistic child, expected outcome and classroom practices inclusive attitudes were predicted by perceived stigma towards parents. Thus, this variable was a significant predictor for all aspects of inclusive attitudes for parents of an autistic child. In addition to views around best practice, parents' beliefs relating to how positive the outcomes of inclusion would be and how inclusion impacts on classroom practices was related to their perceptions of parent stigma. Even when considering aspects of inclusion, parents of an autistic child consider their own stigma experiences. This supports research which has reported the existence of parent stigma (Broady et al., 2017; Mitter et al., 2019; Lalvani, 2015). Our findings highlight the importance of this stigma in overall attitudes towards their child's inclusion in mainstream schools.

Expected outcome inclusive attitudes of parents of an autistic child were also predicted by their autism treatment knowledge. Those with more treatment knowledge were more likely to report positive expected outcomes of inclusion. This supports previous research which shows knowledge is important in attitude formation (de Boer et al., 2011; Forlin, & Sin, 2010). It also extends Lui's et al (2015) findings that parents who were more knowledgeable about inclusion were more positive. Our findings indicate the importance of also having knowledge about the disability. It is important to note though that knowledge of treatment had a negative impact upon classroom practices inclusive attitudes of parents of an autistic child. For this group, those with more knowledge had a more negative classroom practices attitude. More knowledge in relation to what is required to support autistic children

may result in parents believing that classroom processes will be negatively impacted. Finally, similar for parents without an autistic child, the findings showed autism attitudes also predicted classroom practices attitudes. Parents with more positive autism attitudes were more likely to have more positive classroom practices attitudes.

Implications

Research investigating parental attitudes should not only be disability-specific but should also consider different aspects of inclusive attitudes. It is also important to acknowledge that inclusion attitudes and the variables that predict these may vary between parent groups. Thus, parent education or intervention programmes aimed at enhancing inclusive attitudes need to be tailored for distinct parent groups. For example, although autism knowledge was not important to parents' without an autistic child inclusive attitudes, their attitudes towards the disability were. Thus, intervention should aim to enhance views of autism. Further, perceived parent stigma must be addressed to promote positivity among parents of an autistic child. This may be achieved by schools increasing opportunities for communication and contact among parent groups. This would allow parents to establish a community in which they feel accepted. Disability research has suggested that such contact interventions can reduce feelings of social distance and stigma and enhance inclusive attitudes (e.g., Walker & Scior, 2013).

Limitations

The study has possible limitations which should be acknowledged. Self-report questionnaires may increase the likelihood of measurement bias and socially desirable responding (Campbell & Fiske, 1959). However, Podsakoff et al.'s (2003) procedural remedies were used to minimise this risk. Participants used the full range of the response options which increased our confidence in the validity of the results. Another limitation

relates to the participant demographic information collected. We did not ask parents of an autistic child to comment on their child's age, age of diagnosis, how long the child has been diagnosed for, symptom severity and current or past involvement in the educational system. Some research has suggested that such variables may impact upon parents' views (Twyman et al., 2009). Further, given the broader age range of parents recruited in the study (20-74 years old), their experiences of autism and the educational system are likely quite different. Future parental attitude research should consider this.

Conclusion

The study examined differences in autism attitudes, knowledge, stigma, and inclusive education attitudes among parents with and without an autistic child. Predictors of inclusive attitudes were also investigated. We found that parents of an autistic child had significantly higher core perspective inclusive education attitudes than parents with no autistic child. However, this group also reported more beliefs that parents of autistic children are stigmatised. For both parent groups, core perspective inclusive attitudes were predicted by autism attitudes and stigma towards parents of autistic children. However, predictors of expected outcomes inclusive attitudes and classroom practices inclusive attitudes differed between parent groups. The results suggest a need for research investigating parental attitudes to be disability-specific and should consider different aspects of inclusive attitudes. Further, parent education or intervention programmes aimed at enhancing attitudes towards inclusion need to be tailored for distinct parent groups and promote contact among groups.

NOTE: In this article we use identity-first language (e.g., "autistic person") as opposed to person-first language (e.g., "person with autism") to respect the preference of the majority of autistic people (see Gernsbacher, 2017; Kenny et al., 2016).

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