Examining Parental Perception of Inclusive Education Climate

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Parental perspectives about the inclusion of their child with a disability has received limited attention in the literature. Considering parental voice plays an important role in determining the quality of inclusive education, the lack of reliable and valid tools to investigate parental experiences has significantly limited research in this area. One of the key objectives of this study was to build the evidence base in the field by testing the psychometric properties of the newly developed Parental Perception of Inclusion Climate Scale, using a systematic approach drawing on a review of available research in the field. The scale incorporates items that address parental perspectives regarding six key aspects of inclusion for their child including presence, participation, acceptance, achievement, happiness and belonging. Participants were recruited through social media, and data from 190 parents of children with additional learning needs attending a range of school settings were collected. Results suggested a three-factor structure, with strong internal consistency for the scale. These factors were: Teacher and School Support; Student Engagement; and Friendships. The scale showed that parents are generally moderately satisfied with their child's inclusion in school overall. A series of independent sample t-tests and one-way ANOVAs revealed significant differences in parental perspectives of inclusion as measured by the scale according to school sector, disability type, and parent gender. Parents whose children attend government schools reported less satisfaction with their child's inclusion at school and also with the support provided by teachers and schools more broadly as measured by the Teacher and School Support subscale, as compared to parents of children who attend independent schools. Results also suggested that parents of children with a social emotional disability reported less satisfaction with their child's engagement in school as measured by the Student Engagement subscale as compared to parents of children without a social emotional disability. Finally, fathers reported higher levels of satisfaction with their child's engagement in school as measured by the Student Engagement subscale and also higher levels of satisfaction with their peer relationships as measured by the Friendships subscale than mothers. This study provides a tool that researchers, school educators, and policy makers could use to collect evidence about the efficacy of inclusive practices for students with a disability or additional support needs. The scale could provide educators and researchers with a valuable tool to guide evidence-based practice and theory in inclusive education.

Keywords: inclusive education, parental perspectives, teacher practice, school support, evidence-based practice

INTRODUCTION

In many countries, the right to inclusive education for all learners is enshrined in policy and legislation, with a growing number of students around the world participating in inclusive schooling (Round et al., 2016). In Australia, the Nationally Consistent Collection of Data (NCCD) initiative was introduced to enable the consistent collection of data regarding students with a disability across all sectors and jurisdictions to support schools and education authorities to better understand the needs of students with a disability and improve access to inclusive education for all students (Commonwealth of Australia, 2021). Despite these important developments, there continues to be a lack of consensus regarding the definition of inclusive education, which impacts on the capacity of the field to advance research and practice (e.g., Göransson and Nilholm, 2014). Narrower definitions of inclusion tend to focus on the inclusion of students with additional needs, whereas broader definitions expand this to the inclusion of all students. For the purposes of this paper, inclusion refers to the definition outlined in The United Nations Convention of the Rights of Persons with Disabilities (United Nations, 2006) such that all students, regardless of background, have the right to mainstream schooling and the support required to ensure they experience optimal wellbeing and opportunities for learning, and is consistent with the core features of inclusive education outlined in General Comment No. 4, Article 24: Right to Inclusive Education (UN Committee on the Rights of Persons with Disabilities [CRPD], 2016). These include a whole system and educational approach to inclusive education, a whole person approach to ensure the needs of all learners (including those with a disability) are met, supported teachers and learning friendly environments, valuing diversity, effective transitions, the recognition of partnerships and the ongoing monitoring and evaluation of inclusive practices. Finally, consistent with the stance outlined by Merrigan and Senior (2021) and as reflected in UNESCO's Policy Guidelines on Inclusive Education (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2009), we have adopted a definition of inclusive education which focuses on strengthening the capacity of the entire education system (including special schools) to reach out to all learners.

Research has demonstrated a range of benefits associated with effective inclusive education for students with and without additional needs (Jordan et al., 2009; Ruijs and Peetsma, 2009; Hehir et al., 2016). Benefits for students with additional learning needs include improved social and educational outcomes as well as greater post-school opportunities (Hunt et al., 1994; Duhaney and Salend, 2000; Starr and Foy, 2012; Dessemontet and Bless, 2013; Ryndak et al., 2013). The literature also describes a range of benefits associated with inclusive education for students without additional learning needs including improved academic outcomes and greater acceptance of diversity (Ruijs and Peetsma, 2009; Dessemontet and Bless, 2013; Hehir et al., 2016).

Over recent years, researchers have turned their attention to understanding the factors that support effective inclusive education in order to achieve optimal outcomes for all learners.

The literature describes a range of factors as being important such as teacher and school leader attitudes toward inclusion, school culture and policies, peer relationships and support, and teacher practices including differentiation, personalization and the establishment of positive and supportive relationships with and between students (e.g., Bossaert et al., 2013; De Vroey et al., 2016; Schwab et al., 2018). Considered collectively, these concepts and practices have been described by some researchers as representing a school's 'inclusion climate', a term adapted from the more commonly used concept of 'school climate' (Schwab et al., 2018). School climate has been broadly defined in the literature as the teaching practices, organizational structures, culture, values, attitudes and beliefs, and relationships between students, teachers, leaders and the broader school community that contribute toward a student's experience of school (Mitchell et al., 2010).

Parents' attitudes toward inclusion and their involvement in school have also been demonstrated as playing an important role in contributing toward effective inclusive education (Salend, 1998; De Boer et al., 2010; Wilhelmsen et al., 2021). Some of the ways in which parents contribute toward inclusion in schools are:

- through advocating for the rights of their child to participate and be supported according to their needs (Carter et al., 2012; Wilhelmsen and Sørensen, 2019),
- by supporting their child's engagement in school (Hattie, 2009; De Boer et al., 2010),
- by sharing information about their child and collaborating with teachers and school staff (Ashman, 2015; Turnbull et al., 2015), and,
- through their capacity to provide feedback to schools on the acceptability of inclusive policies and practices and the extent to which they perceive them to be meeting their child's needs (Giangreco et al., 1993; Ryndak et al., 1995).

Despite the importance of parental involvement in contributing toward effective inclusive education and the increasing emphasis by education systems more broadly on the role of the home-school partnership in achieving optimal outcomes for students (Fan and Chen, 2001; Hattie, 2009), relatively few studies have investigated parental attitudes toward and satisfaction with inclusive education, specifically in relation to their child. Duhaney and Salend (2000) conducted a review of the literature regarding the experiences of parents of children with and without disabilities concerning inclusive educational programs. Seventeen studies were identified for inclusion in their review, with two of these involving mothers of children with disabilities and 15 studies eliciting the perspectives of parents of children with and without disabilities. Results of this review suggested that the majority of parents of children with disabilities support inclusion and have generally positive attitudes toward inclusive education, including positive beliefs regarding the importance of inclusion in supporting their child's learning and their social and emotional development. Despite these positive beliefs, parents across studies included in this review expressed concerns regarding the capacity of schools to adequately meet their child's needs, including concerns regarding

the provision of personalized and differentiated support, as well as concerns regarding their child's acceptance by peers. A more recent review conducted by De Boer et al. (2010) yielded similar findings. These authors conducted a review of 10 studies published since 1998 regarding parental attitudes toward inclusive education. They found that the majority of parents surveyed across studies have positive attitudes toward inclusion, however they expressed concerns regarding schools' capacity to meet their child's needs, including a lack of individualized instruction and limited resources.

A recent mixed methods study conducted by Stevens and Wurf (2020) investigated the perceptions of 44 Australian parents of children with and without disabilities. Results of this study suggested that the majority of parents believed that inclusive education has benefits for their child, with parents of children with disabilities more likely than parents of children without disabilities to strongly agree that children have the right to inclusive education. Consistent with previous research, the majority of parents believed that teachers were not equipped with the skills or experience to meet the needs of students with disabilities in inclusive classrooms and that resource allocation in schools is not always well targeted or inefficient. Another recent study by Paseka and Schwab (2020) involving a representative survey of 2000 parents in Germany, found that although parental attitudes toward students with a physical disability or learning disability were generally positive, attitudes toward students with behavioral or cognitive disabilities tended to be more neutral. Parents whose children attend an inclusive class reported more inclusive practices than parents of children who attend a class in which there are no children with additional learning needs. There were no significant differences in parental perceptions regarding the allocation of resources according to classroom type (inclusive or regular classroom).

De Boer et al. (2010) review identified the factors that are related to parental attitudes toward inclusion. They reported a range of variables that have been investigated in previous studies including parental age, gender, family SES and child disability type and severity. According to their review, no differences in attitudes have been identified in previous studies according to parental age (Balboni and Pedrabissi, 2000; Kalyva et al., 2007), however, results for parental gender have been mixed. Some studies have identified mothers as reporting more positive attitudes than fathers (Balboni and Pedrabissi, 2000), while others have found fathers report more positive attitudes than mothers (Kalyva et al., 2007).

Parents from higher SES backgrounds and with higher levels of education have been identified as reporting more positive attitudes toward inclusion (Stoiber et al., 1998; Balboni and Pedrabissi, 2000; Leyser and Kirk, 2004) and previous experience of inclusive education has also been identified as a predictor of more positive attitudes (Balboni and Pedrabissi, 2000; Paseka and Schwab, 2020). Finally, differences in parental attitudes toward inclusion have been identified according to child disability type and severity, with less positive parental attitudes reported for children with social-emotional disabilities and cognitive disabilities (Rafferty et al., 2001) and for children with more severe levels of disability (Leyser and Kirk, 2004).

Although previous research in the field has yielded important findings regarding parental attitudes and their perspectives on their child's experience of inclusion at school, the lack of consistency in measurement across studies has been a substantial limitation in this area of research. Having access to a reliable and valid tool to elicit parental perceptions regarding the inclusion climate of their child's school would provide researchers, school educators and policy makers the opportunity to collect evidence about the efficacy of inclusive practices for students with additional support needs as well as guiding practice and theory in inclusive education. The first aim of the current study was therefore to test the psychometric properties of the newly developed Parental Perception of Inclusion Climate Scale (PPICS). The scale was developed using a systematic approach drawing on a review of available research in the field and incorporates items that address parental perspectives regarding six key aspects of inclusion for their child including presence, participation, acceptance, achievement (Ainscow and Miles, 2008), happiness and belonging (Voltz et al., 2001). The scale includes similar items to the existing Inclusion Climate Scale (Schwab et al., 2018), a validated tool developed to measure students' perspectives on the inclusion climate of their school. The second aim of the study was to investigate the demographic characteristics of parents that might influence perceptions of inclusion as measured by the PPICS. We believe a scale of this nature could be helpful for schools to provide evidence of how inclusive they are not only for students who may have additional needs but for all students.

MATERIALS AND METHODS

Procedure

Ethical approval for the conduct of the project was granted from Monash University's Human Research Ethics Committee (Project ID: 29469). Prior to commencing the project, the survey was pilot tested with a small group of parents ($N = 10$) to test the acceptability and social validity of survey items. Minor changes to the wording of some items (e.g., alternating use of he/she throughout the survey) were made on the basis of feedback received from parents as part of the pilot testing phase. The survey was distributed in the researchers' networks, via a series of social media posts and advertisements (i.e., Twitter, Facebook, LinkedIn, and Instagram) and by sharing with parent and disability associations, who distributed the survey with their members on behalf of the research team. The online survey included an explanatory statement describing what was involved in taking part in the study for parents. Participants provided consent by selecting a button prior to proceeding to the survey. Data were collected from August 2021 to November 2021.

Participants

Participants included 190 parents of children with additional learning needs. As indicated in **Table 1**, parents included both mothers ($n = 178$; 95.19%) and fathers ($n = 9$; 4.81%), with an average parental age of 44.16 years ($SD = 8.00$). Most participants reported living in Australia ($n = 178$; 95.70%), with

TABLE 1 | Demographic characteristics of participants.

	n	%	N
Parent age	M = 44.16 years; SD = 8.00		
Child age	M = 11.72 years; SD = 6.23		
Parent gender			187
Female	178	95.19%	
Male	9	4.81%	
Non-binary/gender diverse	0	0	
Child gender			186
Female	60	32.26%	
Male	121	65.05%	
Non-binary/gender diverse	5	2.69%	
Participant location			187
Urban	26	13.90%	
Suburban	108	57.76%	
Regional/rural	53	28.34%	
Child school setting			184
Mainstream primary school	100	54.35%	
Mainstream secondary school	44	23.91%	
Special class in a mainstream school	13	7.07%	
Special school	21	11.41%	
Other	6	3.26%	
Child school sector			184
Government	133	72.28%	
Catholic	26	14.13%	
Independent	25	13.59%	
Child disability*			190
Cognitive disability	105	55.26%	
Physical disability	33	17.37%	
Sensory disability	112	58.95%	
Social emotional disability	109	57.37%	
Other	66	34.74%	
Level of support required to participate in school activities			184
Minimal or no support	11	5.98%	
Some support	40	21.74%	
Moderate level of support	62	33.70%	
Extensive level of support	67	36.41%	
Not sure	4	2.17%	

Participants could select more than one response option.

five participants living in Singapore (2.69%) and one (0.54%) each in Indonesia, Nepal, and New Zealand. The majority of participants reported living in suburban areas (n = 108; 57.76%), with 26 (13.90%) participants reporting living in urban areas and 53 (28.34%) participants living in regional/rural areas.

Participants in the study were parents of children with an average age of 11.72 years (SD = 6.23), with 60 females (32.26%), 121 males (65.05%) and five gender diverse young people (2.69%). Over half of parents in the study (n = 100; 54.35%) reported that their child attends a mainstream primary school, with 44 (23.91%) participants reporting that their child attends a mainstream secondary school, 13 (7.07%) attending a special class in a mainstream school and 21 (11.41%) attending a special school setting. The majority of participants reported their child attends a government school (n = 133; 72.28%), with 26 (14.13%) reporting their child attends a Catholic school, and 25 (13.59%) participants reporting their child attends an independent school. Parents reported their children as having a range of disabilities, including cognitive (n = 105; 55.26%), physical (n = 33; 17.37%), sensory (n = 112; 58.95%) and social emotional disabilities (n = 109; 57.37%).

Measures

Data were collected using a two-part online survey.

Part One

The Parental Perception of Inclusion Climate Scale (PPICS) was developed using a systematic approach drawing on a review of available research in the inclusive education field. The scale incorporates 28 items that address parental perspectives regarding six key aspects of inclusion for their child including presence, participation, acceptance, achievement, happiness, and belonging. These six dimensions were informed by a literature review about what makes an inclusive classroom (Schwab et al., 2018). Inclusion is not just the placement of learners with additional needs in regular classrooms, it should also result in these learners participating in a range of school activities that their peers participate in; they should be accepted by their peers and the schooling communities; and, they should achieve across a range of school curricular activities; and finally, they should have a sense of belonging to the school and feel happy to be part of the school community (Schwab et al., 2018). The scale uses a 4-point Likert scale with responses ranging from Not at all True (1) to Completely True (4). We were keen to develop a scale that was informed by the social model of disability rather than using a medical model of disability, to reflect the importance of the social environment in facilitating or creating barriers to inclusion (Kattari et al., 2017) and to identify opportunities for schools to further strengthen inclusive practices on the basis of parental experiences. The items of the scale are phrased so that they could be responded by all parents rather than only by those who have children with additional needs.

Part Two

This part of the survey collected participants' brief demographic information (e.g., age, gender, location) in addition to demographic information in relation to their child (e.g., age, gender, school setting, school sector, disability type, and level of support required to participate in school activities) and two 4-point Likert style questions regarding participants' satisfaction with their child's school in supporting their inclusion in general and during COVID-19 specifically.

Data Analysis

The 28 items of the PPICS were subjected to principal components analysis (PCA) using SPSS Version 27 to investigate the underlying factor structure. PCA was selected as a psychometrically sound and parsimonious approach to reducing the 28 items of the PPICS into a smaller set of linear combinations, drawing on all of the variance in the original variables. PCA has been identified as a preferred approach to Factor Analysis as it can avoid issues associated with factor indeterminacy (Stevens, 2012). Furthermore, given the current study aimed to provide an initial investigation of the PPICS, PCA was identified as the most appropriate analytical approach. Parallel analysis was used to guide comparison of model fit indices, with oblimin rotation used to support the interpretation of identified factors which were assessed for both statistical and conceptual fit. In order to identify any variations in the

factor structure according to school type, the PCA analysis was repeated after removing participants whose children attend a special school setting from the sample.

To determine whether there were any significant differences in parental ratings of inclusion as measured by the PPICS according to a number of demographic characteristics, a series of one-way between groups analysis of variance (ANOVA) and independent samples t-tests were conducted. Prior to conducting the analyses, preliminary tests were undertaken to inspect the normality of distributions of individual items. Skewness and kurtosis values for all items were well within the recommended thresholds of −3 to +3 and −10 to +10 respectively (Griffin and Steinbrecher, 2013) and visual inspection of histograms revealed relatively normal distributions for all items.

RESULTS

The two key purposes of this study were to examine the psychometric properties of the PPICS; and, to investigate the demographic characteristics that might influence parental perceptions. PCA findings and the internal consistency of the PPICS are presented, followed by results of independent samples t-tests and one-way between groups ANOVAs regarding differences in parental perspectives of inclusion as measured by the scale according to demographic characteristics.

Psychometric Properties of the Parental Perception of Inclusion Climate Scale

The 28 items of the PPICS were subjected to PCA using SPSS Version 27. Prior to conducting the PCA, the suitability of the data was assessed, which involved consideration of sample size and the strength of the relationship among items. The ratio of participants to items was 6.8:1, meeting the 5:1 ratio recommended by Tabachnick et al. (2007). Furthermore, inspection of the loading of items indicated several high loading marker variables (above 0.8) providing further assurance regarding the suitability of the sample size (Tabachnick et al., 2007; Stevens, 2012). Visual inspection of the correlation matrix revealed the presence of many coefficients of 0.3 and above. The Kaiser–Meyer–Oklin value was 0.96, exceeding the recommended value of 0.6 (Kaiser, 1974). Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of four components with eigenvalues exceeding 1, explaining 54.70, 6.82, 5.69, and 4% of the variance respectively. Results of Parallel Analysis revealed three components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (28 variables × 190 respondents). On the basis of these findings, three components were retained for further investigation.

The three-component solution explained a total of 67.21% of the variance, with Component 1 contributing 54.70%, Component 2 contributing 6.82%, and Component 3 contributing 6.69%. To support the interpretation of these three components, oblimin rotation was conducted. As summarized in **Table 2**, the rotated solution revealed the presence of a simple structure (Thurstone, 1947), with all three components demonstrating a number of strong loadings and all variables loading substantially on only one component. On the basis of these findings, no items were removed from the scale. Inspection of the items included in each component suggested the following three factors or subscales: Component 1 – Teacher and School Support; Component 2 – Student Engagement; and Component 3 – Friendships. These were named on the basis of the core concepts represented in each component, drawing on past research regarding factors that are associated with effective inclusive education. **Table 3** provides the correlations between the three identified components, which ranged from 0.22 to 0.38.

Results of the PCA and Parallel Analysis for the reduced sample (after removing from the sample participants whose children attend special school settings) were consistent with the three-component solution identified for the full sample. The three-component solution for the reduced sample explained a total of 66.49% of the variance, with Component 1 contributing 53.69%, Component 2 contributing 6.93% and Component 3 contributing 5.87%. Given these findings and for the reasons outlined in the discussion, the full sample was retained for further analysis as reported below.

Scores on the PPICS range from 28 to 112, with higher scores indicative of higher parental ratings of inclusion. The internal consistency of the scale overall and the three identified subscales were investigated by calculating Cronbach alpha coefficients. The PPICS overall had very strong internal consistency, with a Cronbach alpha coefficient of 0.97. The internal consistency for each of the subscales was also strong, with a Cronbach alpha coefficient of 0.97 for the Teacher and School Support subscale, 0.89 for the Student Engagement subscale, and 0.74 for the Friendships subscale.

Differences in Parental Perception of Inclusion According to Demographic Characteristics

Parental ratings on the scale overall suggested that most parents were somewhere in the middle in their level of satisfaction with the inclusion climate at their child's school (M = 68.42; SD = 19.13) considering the value of the total score can range from 28 to 112. Parental ratings of satisfaction with the support provided to their children by teachers and the school were also moderate as measured by the Teacher and School Support subscale (M = 50.27; SD = 15.18), given responses on this subscale can range between 20 and 80. Parental ratings of satisfaction with their child's engagement and enjoyment of school were also in the mid-range as measured by the Student Engagement subscale (M = 9.12; SD = 3.14), as were parental ratings of satisfaction with their child's peer relationships and support as measured by the Friendships subscale (M = 9.04; SD = 2.76), given both of these subscales have a range of responses between 4 and 16.

To determine whether there were any significant differences in parental ratings of inclusion climate as measured by the PPICS according to a number of demographic characteristics,

TABLE 2 | Pattern and structure matrix for PCA with oblimin rotation of three factor solution of the parental perception of inclusion climate scale (PPICS).

Item	Pattern coefficients			Structure coefficients			Communalities
	Component 1	Component 2	Component 3	Component 1	Component 2	Component 3	
(28) My child's teachers are proactive in addressing any concerns that I may have about my child.	**0.90**	−0.06	−0.050	**0.86**	0.21	0.28	0.75
(22) Staff at my child's school treat all students with respect.	**0.90**	−0.13	0.04	**0.87**	0.16	0.35	0.77
(16) Teachers and other staff in my child's school are caring and compassionate toward all students.	**0.89**	−0.03	0.02	**0.89**	0.25	0.35	0.79
(8) My child's teachers are interested in teaching students who face difficulties at school.	**0.87**	0.05	−0.04	**0.87**	0.31	0.31	0.77
(26) Teachers are respectful in the way they interact with parents of all students.	**0.87**	−0.20	0.09	**0.84**	0.08	0.38	0.75
(27) Staff at my child's school ensure all parents are welcomed.	**0.87**	−0.16	0.05	**0.84**	0.12	0.35	0.73
(20) My child's teachers are enthusiastic about teaching students who have additional needs.	**0.86**	0.06	−0.04	**0.86**	0.32	0.30	0.74
(9) Teachers at my child's school ensure that students, who face challenges receive adequate support and guidance.	**0.84**	0.05	−0.003	**0.86**	0.31	0.33	0.74
(13) My child's teachers are fair and consistent when a student makes mistakes during the lessons.	**0.83**	0.04	−0.02	**0.83**	0.29	0.31	0.70
(25) Teachers are comfortable with accommodating students who frequently ask questions.	**0.83**	0.01	0.02	**0.84**	0.27	0.34	0.71
(12) I am happy that my child is at this school.	**0.80**	0.17	−0.02	**0.85**	0.41	0.33	0.74
(15) Teachers and other staff in my child's school ensure that students are included in all school activities.	**0.80**	0.03	0.07	**0.83**	0.29	0.38	0.70
(24) If my child has been bullied by others, the school acts in an appropriate manner.	**0.79**	-0.03	0.01	**0.79**	0.22	0.31	0.62
(7) My child's teachers give positive feedback when students do well at school.	**0.78**	0.02	0.04	**0.81**	0.27	0.35	0.66
(23) When my child is feeling frustrated and/or anxious, he/she can talk to someone at school.	**0.77**	−0.002	0.007	**0.77**	0.24	0.30	0.59
(6) Teachers and other staff at the school are friendly to my child.	**0.76**	0.10	−0.03	**0.78**	0.33	0.29	0.62
(19) If my child is facing any difficulties at school, there is at least one teacher/adult whom she/he can contact for support.	**0.73**	0.04	0.03	**0.75**	0.27	0.31	0.56
(4) My child receives appropriate help when needed.	**0.72**	0.20	0.05	**0.80**	0.43	0.37	0.68
(5) My child's teachers create engaging and enjoyable lessons.	**0.65**	0.27	0.07	**0.76**	0.49	0.38	0.65
(21) I am satisfied with my child's achievements at school.	**0.55**	0.29	0.14	**0.69**	0.49	0.41	0.58
(2) My child enjoys participating in their class(es).	0.30	**0.78**	−0.03	0.53	**0.87**	0.26	0.83
(3) My child looks forward to participating in classroom activities.	0.30	**0.73**	−0.03	0.51	**0.82**	0.24	0.74
(1) My child enjoys going to school.	0.43	**0.69**	−0.05	0.62	**0.81**	0.27	0.81
(14) My child tries to do her/his best in all lessons.	−0.12	**0.41**	0.19	0.08	**0.41**	0.23	0.20
(11) My child has at least one very good friend at school.	−0.10	0.15	**0.83**	0.26	0.30	**0.83**	0.71
(17) My child's classmates invite him/her to go out socially (e.g., to birthday parties).	0.11	−0.11	**0.81**	0.39	0.10	**0.83**	0.70
(10) My child is liked by peers in his/her class.	0.08	0.21	**0.69**	0.40	0.38	**0.76**	0.63
(18) My child's teachers set high expectations for all learners.	0.29	−0.20	**0.46**	0.40	−0.02	**0.52**	0.36

Items highlighted in bold represent which items loaded on each component for pattern coefficients and structure coefficients.

TABLE 3 | Correlations between parental perception of inclusion climate scale (PPICS) components.

	Component 1: Teacher and School Support	Component 2: Student Engagement	Component 3: Friendships
Component 1: Teacher and School Support	1.00	–	–
Component 2: Student Engagement	0.31	1.00	–
Component 3: Friendships	0.38	0.22	1.00

a series of one-way between groups ANOVA and independent samples t-tests were conducted. To control for Type 1 errors across multiple tests, Bonferroni's adjustment was applied, resulting in a new alpha cut off value of 0.01. There were no significant differences in parent ratings of inclusion climate across the total scale or any of the subscales according to school location (regional/rural, suburban, urban), school type (mainstream primary, mainstream secondary, special class in a mainstream school, other), level of support provided by the school (minimal or no support, some support, moderate support, extensive support, not sure) or child gender (male, female, gender diverse). There were also no significant differences in ratings of inclusion climate for parents who reported their child as having a cognitive disability, physical disability, sensory disability or not as measured by the total scale and each of the subscales.

A significant difference between groups was identified for parent ratings of inclusion climate on the total scale according to school sector (Catholic, government or independent), $F(2,181) = 4.46$, $p = 0.01$. The effect size, calculated using eta squared was 0.05 representing a small to medium effect (Cohen, 1988). *Post hoc* comparisons using the Tukey HSD test indicated that the mean parental ratings of inclusion climate on the total scale for children who attend independent schools ($M = 76.36$; $SD = 15.52$) was significantly higher than the mean parental ratings of inclusion climate on the total scale for children who attend government schools ($M = 65.90$; $SD = 19.49$). A significant difference between parental ratings of inclusion climate according to school sector was also identified for the Teacher and School Support subscale, $F(2,181) = 4.25$, $p = 0.01$. The effect size, calculated using eta squared was 0.04 representing a small to medium effect. *Post hoc* comparisons using the Tukey HSD test indicated that the mean parental ratings on the Teacher and School Support subscale for children who attend independent schools ($M = 56.52$; $SD = 12.70$) was significantly higher than the mean parental ratings on the Teacher and School Support subscale for children who attend government schools ($M = 47.84$; $SD = 16.19$). Overall, it appears that parents of children attending independent schools are more satisfied with the inclusion climate at their child's school when compared to those attending Catholic or public schools.

A significant difference between groups was also identified for parent ratings of inclusion climate on the Student Engagement subscale according to whether students were reported as having a social emotional disability or not, $t(187) = 2.76$, $p = 0.006$ (two-tailed), such that parents of students with a social emotional disability provided lower ratings of their child's engagement in school ($M = 9.11$), compared to parents of students without a social emotional disability ($M = 10.25$). The magnitude of the differences in means (mean difference = 1.14, 95% CI: 0.32 to 1.96) as measured by eta squared was 0.04 representing a small to moderate effect.

Finally, the difference between groups according to parental gender was also approaching significance for ratings of inclusion on the Student Engagement subscale, $t(185) = 2.12$, $p = 0.03$ (two-tailed), and the Friendships subscale, $t(185) = 2.20$, $p = 0.02$ (two-tailed), such that fathers reported higher levels of satisfaction with their child's engagement and enjoyment of school as measured by the Student Engagement subscale and also higher levels of satisfaction with their peer relationships as measured by the Friendships subscale as compared to mothers.

DISCUSSION

Although parental perceptions have been identified as being important in enabling inclusive education (Palmer et al., 2001), research in this area has been limited by the lack of valid and reliable measures. The current study therefore sought to explore the psychometric properties of the newly developed PPICS and to investigate the demographic characteristics of parents that might influence perceptions of inclusion climate as measured by the scale. The study yielded several findings that contribute to the knowledge-base in the field, with implications for policy, practice and research.

Results of PCA suggested a three-factor structure for the PPICS: Teacher and School Support; Student Engagement; and Friendships, with the scale overall and each of the three subscales possessing strong internal consistency. The focus of each of the three subscales was also consistent with previous research which has investigated the factors associated with parental experiences of inclusive education (e.g., Scheepstra et al., 1999; Duhaney and Salend, 2000; De Boer et al., 2010; Stevens and Wurf, 2020). The Teacher and School Support subscale allows measurement of parental satisfaction with the support provided by teachers and schools more broadly in facilitating inclusive education for students. Although there is a lack of research investigating parental perceptions regarding inclusive teaching practices (Paseka and Schwab, 2020), previous reviews have highlighted parental awareness of the importance of personalized and differentiated support in providing effective inclusive education, as well as identifying parental concerns regarding a lack of teacher training and resources available to schools to support the inclusion of all students (Duhaney and Salend, 2000; De Boer et al., 2010; Stevens and Wurf, 2020). The Teacher and School Support subscale may therefore provide useful information to better understand parental perspectives of the effectiveness of inclusive policies and practices in schools, highlighting areas of

strength but also identifying opportunities for improvement to ensure the inclusion of all students. Considering the overall score on the Teacher and School Support subscale was somewhere in the middle, it is clear that schools could do more in supporting all students but particularly those students who have additional needs. For example, identifying opportunities to build the capacity of teachers to ensure that students who face challenges receive adequate support and creating a whole school culture of inclusion where all teachers are confident and enthusiastic about teaching students with additional needs, and where all students and parents are treated with respect.

Similarly, previous research has identified parental concerns regarding their child's acceptance and inclusion by peers as an important factor influencing their satisfaction with inclusive education (Duhaney and Salend, 2000). Research has also identified social participation and the opportunity to develop friendships as being essential factors that influence a parents' preference for inclusive educational settings overall (Scheepstra et al., 1999). Given some of the challenges associated with the social participation of children with additional needs in mainstream schools, including the experience of fewer friendships and less acceptance by peers (e.g., Bramston et al., 2002; Pijl et al., 2008) and the importance of social relationships in facilitating a sense of inclusion and belonging in school (e.g., Balluerka et al., 2016; Ellery, 2019), the Friendships subscale provides the opportunity for consistent measurement regarding parental perceptions of this element of inclusion climate, which may assist schools to better target supports as needed. Finally, the Student Engagement subscale provides a measure of parental satisfaction with their child's enjoyment of and involvement with school. Given the identified importance of student engagement with education in contributing toward positive social emotional and learning outcomes (Goetz et al., 2006) this subscale enables the measurement of parental perceptions of this important dimension of inclusion climate and may provide schools with valuable information to further strengthen supports provided to students where needed.

The second aim of this study was to investigate differences in parental perceptions of inclusion climate as measured by the PPICS total score and each of the three subscales across a range of demographic characteristics. In general, parents reported being moderately satisfied with their inclusion climate at their child's school overall and with the support provided by teachers and schools, their child's engagement in school and their child's friendships as indicated by mean scores that fell in the middle range for the total score and each respective subscale. A significant difference between groups was identified for parent ratings of inclusion climate on the total scale according to school sector (Catholic, government or independent), such that parental ratings of inclusion climate for children who attend independent schools were significantly higher than parental ratings of inclusion climate for children who attend government schools. A significant difference between parental ratings of inclusion climate according to school sector was also identified for the Teacher and School Support subscale, such that parental ratings for children who attend independent schools were significantly higher than parental ratings for children who attend

government schools. These findings are important given parental beliefs regarding the need for school access to appropriate resources and staff training to facilitate inclusion (e.g., Duhaney and Salend, 2000; De Boer et al., 2010; Stevens and Wurf, 2020) and underscore the importance of initiatives such as the NCCD to support the consistent collection of data across all school sectors regarding students with a disability and to improve access to the required supports to learning for all students. These findings also highlight an important area for future research and policy, to ensure all teachers and schools, regardless of sector, receive access to adequate training, resources and support to meet the needs of all learners.

A significant difference between groups was also identified for parent ratings of inclusion climate on the Student Engagement subscale according to whether students were reported as having a social emotional disability or not, such that parents of students with a social emotional disability provided lower ratings of their child's engagement in school, compared to parents of students without a social emotional disability. These findings are consistent with previous research which has identified differences in parental attitudes toward inclusion for child disability type, with less positive parental attitudes reported for children with social emotional disabilities and cognitive disabilities (Rafferty et al., 2001). This also highlights an important area for future research, policy and practice in the field, to further understand the barriers to student engagement and enjoyment of school for students with a social emotional disability and to ensure students with disability receive the support they need to experience a sense of engagement and belonging to school. Parental insights into this area as provided by the Student Engagement subscale of the PPICS may offer a useful tool to support schools to better understand the diverse needs of students and an opportunity to strengthen inclusive practices for the benefit of all students.

Finally, the difference between mothers and fathers for parent ratings of inclusion climate on the Student Engagement subscale and the Friendships subscale was also approaching significance, such that fathers reported higher levels of satisfaction with their child's engagement and enjoyment of school and also higher levels of satisfaction with their peer relationships. These findings are consistent with those reported by Kalyva et al. (2007) and may help elucidate conflicting findings in the research regarding differences in parental attitudes toward inclusion according to parent gender by allowing a more nuanced measurement of parental perceptions through each of the three subscales which investigate different dimensions of inclusion. The finding that fathers provided higher ratings than mothers on the Student Engagement and Friendships subscales may reflect different parental expectations and experiences in relation to their child's inclusion at school as a function of differing levels of involvement. There is some evidence to suggest that fathers may be less involved than mothers in their child's education (e.g., Pleck, 2010; McWayne et al., 2013), which may contribute toward different perceptions of their child's inclusion as compared to mothers. Also, research suggests fathers of children with additional learning needs may hold different expectations for their children in terms of their social engagement than mothers (e.g., Rowe and Kandel, 1997; Kalyva, 2010). The PPICS may

therefore provide schools with valuable insights to support the identification of strategies to strengthen inclusion on the basis of information provided by both mothers and fathers.

Limitations

Although this study makes several important contributions to the knowledge-base, the findings need to be considered within the context of a number of limitations. Firstly, although adequate for the conduct of PCA (e.g., Tabachnick et al., 2007), the sample size was relatively small. Although there are conflicting views in the literature regarding sample size requirements for PCA, most researchers agree that larger sample sizes (<300 participants) are preferable (e.g., Nunnally, 1978). While the participant to items ratio was acceptable in the current study, including several high loading marker variables, it would be beneficial for future research to replicate the current study with a larger sample of parents to confirm the identified factor structure. Secondly, the convenience sampling approach to recruitment may have resulted in a biased sample, such that parents with more positive views regarding their child's inclusion at school may have been more likely to participate in the study. Similarly, it is possible that parents from higher SES backgrounds and with higher levels of education may have been more likely to participate in this research. There is evidence to suggest that parental SES and education can influence parental views regarding inclusion (Balboni and Pedrabissi, 2000; Leyser and Kirk, 2004). However, the finding that parents reported moderate levels of satisfaction with the inclusion climate at their child's school as measured by the PPICS and each subscale provides some assurance that parents from a range of backgrounds and with a range of views responded to the survey. However, it is recommended that future research collect information regarding parental SES and education level to investigate the impact of these variables on parental perceptions of inclusion climate using the scale. Similarly, it is recommended that future research gather information regarding cultural background to examine any differences in responses on the PPICS and each subscale for parents from culturally and linguistically diverse backgrounds.

It is also acknowledged that school setting may impact on parents' perceptions of inclusion climate, such that parents of children attending special school settings may have different views and experiences than parents of children attending mainstream settings. To address this issue, we repeated the PCA with the sample of parents whose children attend mainstream schools only in order to identify any variations with the full sample (including parents of children attending special school settings). Results of these analyses did not reveal any substantial differences in the factor structure for the PPICS for the reduced sample. Furthermore, results of one-way between groups ANOVAs did not reveal any significant differences according to school setting on the total score PPICS or any of the subscales. Our definition of inclusive education for the purposes of this paper aligned with UNESCO's Policy Guidelines on Inclusive Education (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2009), which emphasizes the importance of strengthening the capacity of the entire education system (including special schools) to reach out to all learners.

Consistent with this definition, we were keen to include the views of parents whose children attend special schools now or in the past as we believe their perspectives are important and add to our understanding of how the broader educational system can best meet the needs of all learners, regardless of school setting.

Future research may also further examine the psychometric properties of the scale including further testing of the validity of the proposed factor structure through Confirmatory Factor Analysis (CFA), investigation of the scale's concurrent and predictive validity, as well as exploration of the sensitivity of the scale in measuring change over time and in response to interventions designed to strengthen school inclusion. Longitudinal research may assist in gathering further information regarding the scale's usefulness as a tool to inform school policies and practices and in measuring the effectiveness of strategies to build the school's inclusion climate on the basis of parental perceptions.

CONCLUSION

Given the importance of parental voice in determining the quality of inclusive education, it is essential that parental experiences be measured using reliable and valid tools. This study has addressed a gap in the research in this field, through the development and testing of a tool to elicit parental perceptions of inclusion climate which can be used to guide practice and theory, as well as supporting researchers, school educators, and policy makers to collect evidence about the effectiveness of inclusive practices for students with a disability or additional support needs.

Furthermore, the identification of three subscales within the tool: Teacher and School Support; Student Engagement; and Friendships, enables measurement of parental experiences of these important dimensions of inclusion to provide schools with more nuanced information regarding strengths and areas for further development. It is anticipated that this tool will be helpful to provide schools with another source of evidence regarding their inclusion climate not only for students who may have additional needs, but for all students. It is recommended that future research further explore the psychometric properties of the scale, including investigation of any variations in responses to the scale according to parental SES, level of education and cultural background. It is also suggested that future research explore the usefulness of the scale in measuring the impact of evidence-based strategies such as teacher professional learning and support and school policies and procedures on the inclusion of all learners.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Monash University Human Research Ethics

Committee. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

US, SW, and PS contributed to the conception and design of the study and the development of the survey. FM was responsible for data collection and performed the statistical analysis. FM and US wrote the first draft of the manuscript, with input and review from SW and PS. All authors contributed to the manuscript revision, read, and approved the submitted version.

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REFERENCES

Ainscow, M., and Miles, S. (2008). Making education for all inclusive: where next? *Prospects* 38, 15–34.

Ashman, A. (2015). "Embracing Inclusion," in *Education for Inclusion and Diversity*, 5th Edn, ed. A. Ashman (Melbourne: Pearson Australia), 2–34.

Balboni, G., and Pedrabissi, L. (2000). Attitudes of Italian teachers and parents toward school inclusion of students with mental retardation: the role of experience. *Educ. Train. Mental Retardat. Develop. Disabil.* 35, 148–159.

Balluerka, N., Gorostiaga, A., Alonso-Arbiol, I., and Aritzeta, A. (2016). Peer attachment and class emotional intelligence as predictors of adolescents' psychological well-being: a multilevel approach. *J. Adoles.* 53, 1–9. doi: 10.1016/j.adolescence.2016.08.009

Bartlett, M. S. (1954). A note on the multiplying factors for various χ^2 approximations. *J. Royal Statistic. Soc. Series B* 16, 296–298.

Bossaert, G., Colpin, H., Pijl, S. J., and Petry, K. (2013). Truly included? A literature study focusing on the social dimension of inclusion in education. *Int. J. Inclus. Educ.* 17, 60–79. doi: 10.1080/13603116.2011.580464

Bramston, P., Bruggerman, K., and Pretty, G. (2002). Community perspectives and subjective quality of life. *Int. J. Disabil. Dev. Educ.* 49, 385–397. doi: 10.1080/1034912022000028358

Carter, E., Swedeen, B., Cooney, M., Walter, M., and Moss, C. (2012). 'I don't have to do this by myself?' Parent-led community conversations to promote inclusion. *Res. Practice Persons Severe Disabil.* 37, 9–23. doi: 10.2511/027494812800903184

Cohen, J. W. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd Edn. Hillsdale, NJ: Lawrence Erlbaum Associates.

Commonwealth of Australia (2021). *Nationally Consistent Collection of Data on School Students with Disability: 2022 Guidelines*. Available online at: https://www.nccd.edu.au/sites/default/files/2022%20NCCD%20Guidelines-final-revised-2.pdf (accessed February 15, 2022).

De Boer, A., Pijl, S. P., and Minnaert, A. (2010). Attitudes of parents towards inclusive education: a review of the literature. *Eur. J. Special Needs Educ.* 25, 165–181. doi: 10.1080/08856251003658694

De Vroey, A., Struyf, E., and Petry, K. (2016). Secondary schools included: a literature review. *Int. J. Inclus. Educ.* 20, 109–135. doi: 10.1080/13603116.2015.1075609

Dessemontet, R., and Bless, G. (2013). The impact of including children with intellectual disability in general education classrooms on the academic achievement of their low-, average-, and high-achieving peers. *J. Intell. Dev. Disabil.* 38, 23–30. doi: 10.3109/13668250.2012.757589

Duhaney, L. M. G., and Salend, S. J. (2000). Parental perceptions of inclusive educational placements. *Remed. Special Educ.* 21, 121–128. doi: 10.1177/074193250002100209

Ellery, T. (2019). Belonging as a Pathway to Inclusive: An Inquiry into Supporting Inclusive Practice in Secondary Schools. *Kairaranga* 20, 52–62. doi: 10.1016/j.socscimed.2021.113984

Fan, X., and Chen, M. (2001). Parental involvement and students' academic achievement: a meta-analysis. *Educ. Psychol. Rev.* 13, 1–22. doi: 10.1023/A:1009048817385

Giangreco, M. F., Edelman, S., Cloninger, C., and Dennis, R. (1993). My child has a classmate with severe disabilities: what parents of nondisabled children think about full inclusion. *Dev. Disabil. Bull.* 21, 77–91.

Goetz, T., Hall, N. C., Frenzel, A. C., and Pekrun, R. (2006). A hierarchical conceptualization of enjoyment in students. *Learn. Instruct.* 16, 323–338.

Göransson, K., and Nilholm, C. (2014). Conceptual diversities and empirical shortcomings–a critical analysis of research on inclusive education. *Eur. J. Special Needs Educ.* 29, 265–280.

Griffin, M. M., and Steinbrecher, T. D. (2013). Large-scale datasets in special education research. *Int. Rev. Res. Dev. Disabil.* 45, 155–183.

Hattie, J. (2009). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. Abingdon: Routledge.

Hehir, T., Grindal, T., Freeman, B., Lamoreau, R., Borquaye, Y., and Burke, S. (2016). *A Summary of the Evidence on Inclusive Education*. Brazil: Abt Associates.

Hunt, P., Staub, D., Alwell, M., and Goetz, L. (1994). Achievement by all students within the context of cooperative learning groups. *J. Assoc. Persons Severe Handicaps* 19, 290–301. doi: 10.1177/154079699401900405

Jordan, A., Schwartz, E., and McGhie-Richmond, D. (2009). Preparing teachers for inclusive classrooms. *Teach. Teach. Educ.* 25, 535–542. doi: 10.1016/j.tate.2009.02.010

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika* 39, 31–36. doi: 10.1007/BF02291575

Kalyva, E. (2010). Multirater congruence on the social skills assessment of children with Asperger syndrome: self, mother, father, and teacher ratings. *J. Autism Dev. Disord.* 40, 1202–1208. doi: 10.1007/s10803-010-0978-y

Kalyva, E., Georgiadi, M., and Tsakiris, V. (2007). Attitudes of Greek parents of primary school children without special educational needs to inclusion. *Eur. J. Special Needs Educ.* 22, 295–305. doi: 10.1080/08856250701430869

Kattari, S. K., Lavery, A., and Hasche, L. (2017). Applying a social model of disability across the life span. *J. Hum. Behav. Soc. Environ.* 27, 865–880.

Leyser, Y., and Kirk, R. (2004). Evaluating inclusion: an examination of parent views and factors influencing their perspectives. *Int. J. Disabil. Dev. Educ.* 51, 271–285. doi: 10.1080/1034912042000259233

McWayne, C., Downer, J. T., Campos, R., and Harris, R. D. (2013). Father involvement during early childhood and its association with children's early learning: a meta-analysis. *Early Educ. Develop.* 24, 898–922.

Merrigan, C., and Senior, J. (2021). Special schools at the crossroads of inclusion: do they have a value, purpose, and educational responsibility in an inclusive education system? *Irish Educ. Stud.* 40, 1–17.

Mitchell, M. M., Bradshaw, C. P., and Leaf, P. J. (2010). Student and teacher perceptions of school climate: a multilevel exploration of patterns of discrepancy. *J. School Health* 80, 271–279. doi: 10.1111/j.1746-1561.2010.00501.x

Nunnally, J. O. (1978). *Psychometric Theory*. New York: McGraw-Hill.

Palmer, D. S., Fuller, K., Arora, T., and Nelson, M. (2001). Taking sides: parent views on inclusion for their children with severe disabilities. *Except. Child.* 67, 467–484. doi: 10.1177/001440290106700403

Paseka, A., and Schwab, S. (2020). Parents' attitudes towards inclusive education and their perceptions of inclusive teaching practices and resources. *Eur. J. Special Needs Educ.* 35, 254–272. doi: 10.1080/08856257.2019.1665232

Pijl, S. J., Frostad, P., and Flem, A. (2008). The social position of pupils with special needs in regular schools. *Scand. J. Educ. Res.* 52, 387–405. doi: 10.1080/00313830802184558

Pleck, J. H. (2010). "Paternal involvement: Revised conceptualization and theoretical linkages with child outcomes," in *The Role of the Father in Child Development*, 5th Edn, ed. M. E. Lamb (Hoboken, NJ: Wiley), 58–93.

Rafferty, Y., Boettcher, C., and Griffin, K. W. (2001). Benefits and risks of reverse inclusion for preschoolers with and without disabilities: parents'

perspectives. *J. Early Intervent.* 24, 266–286. doi: 10.1177/1053815101024004003

Round, P. N., Subban, P. K., and Sharma, U. (2016). 'I don't have time to be this busy' Exploring the concerns of secondary school teachers towards inclusive education. *Int. J. Inc. Educ.* 20, 185–198. doi: 10.1080/13603116.2015.1079271

Rowe, D. C., and Kandel, D. (1997). In the eye of the beholder? Parental ratings of externalizing and internalizing symptoms. *J. Abnorm. Child Psychol.* 25, 265–275. doi: 10.1023/a:1025756201689

Ruijs, N. M., and Peetsma, T. T. (2009). Effects of inclusion on students with and without special educational needs reviewed. *Educ. Res. Rev.* 4, 67–79.

Ryndak, D., Jackson, L. B., and White, J. M. (2013). Involvement and progress in the general curriculum for students with extensive support needs: K–12 inclusive-education research and implications for the future. *Inclusion* 1, 28–49. doi: 10.1352/2326-6988-1.1.028

Ryndak, D. L., Downing, J. E., Jacqueline, L. R., and Morrison, A. P. (1995). Parents' perceptions after inclusion of their children with moderate or severe disabilities. *J. Assoc. Persons Severe Handicaps* 20, 147–157.

Salend, S. J. (1998). *Effective Mainstreaming: Creating inclusive Classrooms*, 3rd Edn. Columbus, OH: Merrill/Prentice Hall.

Scheepstra, A. J., Nakken, H., and Pijl, S. J. (1999). Contacts with classmates: the social position of pupils with Down's syndrome in Dutch mainstream education. *Eur. J. Special Needs Educ.* 14, 212–220. doi: 10.1080/0885625990140303

Schwab, S., Sharma, U., and Loreman, T. (2018). Are we included? Secondary students' perception of inclusion climate in their schools. *Teach. Teach. Educ.* 75, 31–39. doi: 10.1016/j.tate.2018.05.016

Starr, E. M., and Foy, J. B. (2012). In parents' voices: the education of children with autism spectrum disorders. *Remed. Spec. Educ.* 33, 207–216. doi: 10.1177/0741932510383161

Stevens, J. P. (2012). *Applied Multivariate Statistics for the Social Sciences.* New York: Routledge.

Stevens, L., and Wurf, G. (2020). Perceptions of inclusive education: a mixed methods investigation of parental attitudes in three Australian primary schools. *Int. J. Inclusive Educ.* 24, 351–365. doi: 10.1080/13603116.2018.1464068

Stoiber, K. C., Gettinger, M., and Goetz, D. (1998). Exploring factors influencing parents' and early childhood practitioners' beliefs about inclusion. *Early Child. Res. Quart.* 13, 107–124. doi: 10.1016/S0885-2006(99)80028-3

Tabachnick, B. G., Fidell, L. S., and Ullman, J. B. (2007). *Using Multivariate Statistics.* Boston, MA: Pearson.

Thurstone, L. L. (1947). *Multiple-Factor Analysis: A Development and Expansion of The Vectors of Mind.* Chicago: University of Chicago Press.

Turnbull, A. A., Turnbull, H. R., Erwin, E. J., Soodak, L. C., and Shogren, K. A. (2015). *Families, Professionals, and Exceptionality: Positive Outcomes through Partnerships and Trust*, 7th Edn. Boston: Pearson.

United Nations Educational, Scientific and Cultural Organisation [UNESCO] (2009). *Policy Guidelines on Inclusion in Education.* Paris: UNESCO.

United Nations (2006). *Convention on the Rights of Persons with Disabilities.* New York: United Nations.

UN Committee on the Rights of Persons with Disabilities [CRPD] (2016). *General comment No. 4, Article 24: Right to inclusive education.* Available online at: CRPD/C/GC/4: https://www.refworld.org/docid/57c977e34.html

Voltz, D. L., Brazil, N., and Ford, A. (2001). What matters most in inclusive education: a practical guide for moving forward. *Intervent. School Clin.* 37, 23–30.

Wilhelmsen, T., and Sørensen, M. (2019). Physical education-related home–school collaboration: the experiences of parents of children with disabilities. *Eur. Phys. Educ. Rev.* 25, 830–846. doi: 10.1080/1356336X18777263

Wilhelmsen, T., Sørensen, M. S., Seippel, Ø, and Block, M. E. (2021). Parental satisfaction with inclusion in physical education. *Int. J. Inclusive Educ.* 25, 1061–1078. doi: 10.1080/13603116.2019.1597930

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