A descriptive examination of the types of relationships formed between children with developmental disability and their closest peers in inclusive school settings

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A descriptive examination of the types of relationships formed between children with developmental disability and their closest peers in inclusive school settings

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Abstract

Background One of the most commonly cited rationales for inclusive education is to enable the development of quality relationships with typically developing peers. Relatively few researchers have examined the features of the range of relationships that children with developmental disability form in inclusive school settings.

Method Interviews were conducted with 25 children with developmental disability, aged 5 and 12 years, their 3 closest peers, and parents and teachers to examine 6 types of relationships.

Results Behaviours associated with general friendship and acquaintance were the most commonly reported. Few dyads reported high rates of behaviour associated with special treatment, helping, ignoring, or intimate best friend relationships.

Conclusions The relationships of the majority of dyads were characterised by friendship or acceptance, but evidence of more intimate relationships was limited. An important direction for future research is the examination of ways to encourage more intimate relationships.

Keywords: *relationships, children, developmental disability, peers*

Over the past two decades, researchers and parents (Strully & Strully, 1985; Turnbull, Pereira, & Blue-Banning, 1999, 2000) have increasingly argued that children with even the most severe disability have the right to attend schools alongside their typically developing peers, to participate in the social networks of the school, and thereby lay the foundation for participation in adult society. In addition, it is argued that by including children with disability in regular education environments, these children will have opportunities to regularly interact with and develop relationships with their peers (TASH, 1999). Parents have stated that they felt the formation of friendships was a more important goal for their child with a disability than academic outcomes (Hamre-Nietupski, 1993).

According to Haring (1991), a social network involves a continuum of relationships from casual acquaintances to intimate friendships. Haring also suggests that all relationships need to be examined, rather than just friendship. Bukowski and Hoza (1989) reiterate that researchers need to consider the effects of having an extensive network of friends and need to depart from the practice of collecting information about only one of a child's friendships. Some researchers have argued that different types of relationships may have different functions (Rubenstein, 1984), meeting a diversity of emotional and practical needs (McVilly, Stancliffe, Parmenter, & Burton-Smith, 2006), and may all have value if they have benefits for the individuals involved (Grenot-Scheyer, Harry, Park, Schwartz, & Meyer, 1998).

Social relationships have been extensively examined in the research on typically developing children (Cleary, Ray, LoBello, & Zachar, 2002; Furman & Buhrmester, 1985; Ray & Cohen, 1996; Rubin, 1980). Researchers have examined the different types of relationships that children participate in at home and school (Furman & Buhrmester, 1985), the differences in relationships depending on a child's peer acceptance status at school (Brendgen, Little, & Krappmann, 2000), and the various types of support that children derive from different relationships (Turnbull, Blue-Banning, & Pereira, 2000).

Friendship has been addressed in children with developmental disability (Buysse, Goldman, & Skinner, 2002; Freeman & Kasari, 2002; Morrison & Burgman, 2009). For example, Webster and Carter (2010b) examined several specific features of friendship, such as companionship and validation and caring, in the relationships of children with developmental disability and peers in inclusive settings. Similarly, Morrison and Burgman (2009) interviewed 10 children with developmental disability to explore their friendship experiences in home, community, and school settings and found that these experiences were extremely varied and included both stories of reciprocal relationships and experiences of social isolation. Nevertheless, there has been a very limited examination of the broader types of relationships, either positive or negative, which children with disability form with peers in inclusive school settings. This is important given that some researchers have found that opportunities to interact and school placement had a strong influence on the formation of relationships between children with developmental disability and peers (Kalymon, Gettinger, & Hanley-Maxwell, 2010; Siperstein, Parker, Bardon, & Widaman, 2007). Some of the most valuable information on types of relationships formed between children with disability and peers has been provided in a series of qualitative studies. For example, in an early study, Murray-Seegert (1989) classified the interactions between adolescents with developmental disability and peers into five categories based on the primary type of contact between the two parties.

More recently, a series of case studies (Evans & Meyer, 2001; Meyer et al., 1998; Richardson & Schwartz, 1998; Salisbury & Palombaro, 1998) have provided information and qualitative descriptions of six types of social relationships of children with and without developmental disability in inclusive settings. Meyer et al. (1998) and Evans and Meyer (2001) defined six "frames" that characterised the social relationships of students with disability in terms of their social interactions. Three of these frames (Best Friend, Regular

Friend, Just Another Child) were seen as similar to the relationships of Friendship or Acquaintance relationships commonly found between typically developing children. The remaining three types of relationships (I'll Help, Inclusion Child, and Ghost/Guest) were considered by the researchers to be specific to the relationships between children with disability and peers without disability, and involved some type of imbalance or inequity in interactions between the members of the dyad. These three relationships were typically characterised by one member of the dyad viewing the other as different and in need of special consideration or help. Richardson and Schwartz (1998) also used this framework of relationships to examine five similar types of relationships found between children with disability and peers in preschool settings.

There have been few quantitative attempts to examine characteristics of relationships in children with developmental disability. Research on the relationships of typically developing children conducted by Kerns (2000) provides one example of the description and characterisation of relationships between typically developing children, although this study was limited to typically developing preschool children. The application of similar systematic research to the relationships of children with disability in inclusive settings is very limited, although some preliminary insights have been offered in qualitative studies over the past decade. Since a goal of social integration is to assist children with disability to become vital members of social networks within their school community (Haring, 1991), research focusing on the different varieties of relationships of children with developmental disability in inclusive settings is important to determine the extent to which such social integration is occurring.

While important information on the characteristics of relationships of children with developmental disability have been offered in qualitative studies, it has been acknowledged that these insights are preliminary, providing only snapshots of dyads' relationships and that

further research is needed (Meyer, et al., 1998). In particular, there is a lack of research on the behavioural characteristics associated with a range of relationships of children with developmental disability in inclusive settings. This approach would assist in providing a more complete picture of the relationships that children with disability are forming with typically developing peers. More importantly, further investigation of the full range of relationships suggested by Meyer et al. (1998) would present a comprehensive picture of whether children with disability are forming relationships that are consistent with those commonly found between typically developing children or are predominately forming atypical relationships.

The study reported in this article was part of a larger research project that examined relationships between children with developmental disability and peers in inclusive settings. Specifically, the study was conducted in order to provide a descriptive examination of the behaviours associated with various types of relationships formed in inclusive settings with regard to the frames of reference developed by Meyer and colleagues (1998).

Methodology

This study is part of a larger research project, which included data from a study reported in Webster and carter (2010b). As both of these studies were part of a larger research project, the setting, selection of target students, and nomination of peers will be very similar to that reported in Webster and Carter (2010b, pp. 64-66).

Setting

The research was conducted in Alice Springs, in the Northern Territory, Australia. Alice Springs has a population of approximately 27,000 people, which includes an estimated 5,000 Australian Aboriginals. Due to various employment and lifestyle opportunities, Alice Springs also has a highly diverse population with immigrants from many countries and cultures. It is located at the centre of Australia and is 1,300 km from any city with a larger population.

Selection of target students

A letter was sent to all area primary schools detailing the basic parameters of the study and outlining the criteria for selection of the target students. Schools were asked to identify any student who (a) had been identified as having a developmental disability, which was defined as a significant delay in adaptive behaviour and at least one other area of functional impairment such as cognitive or communication skills (Centre for Developmental Disability Studies, 2001; Developmental Disabilities Assistance and Bill of Rights Act, 2000); (b) had a high level of educational need in that he or she had been identified by the Northern Territory Department of Education as in need of individual assistance in order to access the curriculum; (c) had a record of regular attendance and/or would be present in school for the entire school year; and (d) had not been identified as a child whose primary disability was a sensory impairment (i.e., impairments in hearing, vision), a physical disability, or behaviour problems. It should be noted that a sensory impairment or behaviour problem may have existed as a secondary issue to the developmental disability. Children were excluded from the study if the primary diagnosis was a learning disability with average intellectual ability, low achievement, and no corresponding significant delays in other areas or in adaptive behaviour.

All 10 area public and private primary schools agreed to participate in the study, but three private schools (two with very small enrolments) reported that they did not have any students who met the specified criteria. Parental consent was obtained for the participation of 25 students. These children represented 83% of children with developmental disability in inclusive schools in Alice Springs. Verbal consent was also obtained from all students and peers at the beginning of the interview sessions and ethical approval was obtained from both Macquarie University, Sydney, Australia, and the Northern Territory Department of Education.

Target students

Six of the selected students were in preschool (mean age = 5 years 4 months; range: 4 years 9 months–6 years 1 month), 12 were in the lower primary grades of transition through Grade 3 (mean age = 7 years 2 months; range: 5 years 1 month–9 years 4 months), and seven were in upper primary Grades 4 through 6 (mean age = 10 years 9 months; range: 10 years 0 months–12 years 1 month). Target students were predominately male with four girls and 21 boys. Eight children were identified as being of Aboriginal descent. Two of these students spoke a language other than English at home. Based on diagnostic reports of the 25 target students with a developmental disability, 13 students had a primary diagnosis of an intellectual disability (eight mild, four moderate, and one severe) with compounding disabilities in communication and motor skills. Six students had a primary diagnosis of an autistic spectrum disorder, one student had cerebral palsy, two students had severe communication disorders with compounding social-emotional and learning delays, and three students had unspecified developmental delays with deficits in multiple areas.

The Vineland Adaptive Behavior Interview (Sparrow, Balla, & Cicchetti, 1985) and the Social Skills Rating System (Gresham & Elliott, 1990) were completed for each student using the teacher as an informant. The mean score for the Vineland Adaptive Behavior Composite was 64.6 (range 42–78). This score falls in the "low" range as the mean standard score is 100. In addition, 19 students (76%) had a composite score that was less than 70, while four students (16%) had scores that were below 60. Assessment on the Social Skills Rating System (Gresham & Elliott, 1990) produced a group mean standard score of 77.7 (range 54–97) on the Social Skills subtest. This is in the "low" range and reflects fewer social skills than would be expected for students in either the preschool or primary school age groups. A group mean standard score of 113 (range 88–137) was found across the 25 target students on the Problem Behavior subtest. This score falls at the high end of the average range. Higher scores indicate a *higher number* of problematic behaviours that may interfere

with learning. For students in the primary age group, a mean standard score of 80.3 (range 70–106) was found for the academic measure. This score falls within the "below average" range when compared to the norm.

Nomination of peers

A combination of teacher and target student nomination was utilised. Older (Grades 1 through 6, $n = 15$) and more verbal students were asked to identify their three closest friends. In these instances, each student's choices were verified by his or her teacher. For the remaining younger (preschool through Grade 2, $n = 10$) and nonverbal target students, teachers were asked to nominate three friends or, if three friends could not be identified, children with whom the target student most frequently interacted. Target students were then asked if the three peers chosen by their teacher were their friends, along with an additional three students selected randomly from their class as distractors. If the target student said the peers identified by the teacher were not his or her friends, the teacher was asked to identify another peer. This alternative selection was subsequently confirmed by asking the target student whether the nominated peer was a friend. The target student was again asked about the nominated peer, as well as a randomly selected peer who served as a distractor. All target students confirmed teachers' selections of peers, with the exception of five who were nonverbal. All nominated peers participated in an interview concerning their relationship with the target student.

Seventy-four peers were selected for the 25 target students as one nominated peer moved during the initial phase of the study. This resulted in the formation of 74 dyads. The term *dyad* is used in this research to identify a pair consisting of a nominated peer and target child. Twenty-two peers were female and 52 were male.

Development of interview questionnaire

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The findings reported here derived from a larger study of relationships of children with developmental disability in inclusive settings (Webster & Carter, 2010a, 2010b, 2010c). The interview questionnaire used in the larger research contained 77 questions, but 46 of these were not pertinent to research discussed in this article.

The six types of relationships described by Meyer et al. (1998) were examined to identify the core features of the relationships, as well as the behavioural characteristics associated with each. Thus, questions were included that directly reflected the descriptions provided by Meyer et al. A set of 31 questions was developed relevant to the types of relationships. Eleven of these questions were derived from questionnaires designed to study the friendships of typically developing children (Parker & Asher, 1993). A further 20 questions were specifically created to reflect particular aspects and behaviours associated with the broader relationships under examination. Regardless of whether they were taken from the previous instrument or specifically created for this study, all questions directly reflected the behavioural descriptions of Meyer et al. to represent each type of relationship. The relationship types and interview questions for each question are presented in Table 1 and will now be overviewed. A more detailed description of the relationship types and individual questions related to each type can be obtained from the authors.

<Please insert Table 1 about here>

A 3-point scale (*always*, *sometimes* and *never*) was used for all respondents. Further, if the respondent initially answered "yes," they were then asked if they engaged in the behaviour "some of the time" or "all of the time." A "don't know" response option was provided, as it was considered inappropriate to force responses where a participant (such as a parent or teacher) might not have knowledge of the information.

Procedural adaptations

It was anticipated that obtaining information from children with developmental disability, including communication problems, over a considerable age range, would present a challenge, and several strategies were employed to assist in obtaining the most complete dataset possible. It was also anticipated that a number of the participants would not be able to complete the interview due to cognitive and/or communication problems. Thus, in order to present the most complete and accurate picture of the relationships, interviews regarding the relationship between each dyad were conducted with target students, nominated peers, classroom teachers (general education), and parents of target students. While not all of the children could complete the interview, a large number could provide some information on their perspective of the relationships and this information was considered important.

Based on recommendations from teachers and parents, target students ($n = 9$) and peers ($n = 26$) in preschool and transition (pre-primary) classes were not given the full interview relevant to this study as it was considered that the length of the interview would pose too great a demand. In these cases, interviews still proceeded with teachers and parents. Further, the interview was not conducted with an additional two target students whose parents considered their child would be unable to respond to the questions. Again, in these cases, interviews still proceeded with peers, teachers, and parents.

In addition, several sample questions were given to students and the different responses were explained and demonstrated at the beginning of the interview. It was considered important to assess the level of reliability of child respondents. Thus, in the full survey of 77 questions, 3 of the first 10 questions were repeated for child respondents to assess reliability. Two of these three reliability questions were used in the present study. Photographs of students were available if necessary to remind the target child of whom they were discussing. Adults and all children who could read were given a written copy of the

interview format to follow as the interviewer asked the questions. The option was also available to break the interview into multiple sessions if a child was becoming distracted.

Interviews

Interviews were conducted at schools for all participants except for some parents, where they were conducted at community locations. Target students, parents, and teachers were asked each question three times in succession for each of the nominated peers. Parents and teachers were asked questions from the standpoint of the target student.

Interview reliability

Reliability of child respondents was very high, and only one target student and one nominated peer were rejected because they did not meet the reliability criteria (100% agreement) across three repeated questions.

Data analysis

Prior to analysis, responses were converted into numerical scores with 3 for *always*, 2 for *sometimes*, and 1 for *never*. Responses to individual questions for each dyad were categorised as *high* when there was a consensus across available respondents that the described behaviour occurred always (i.e., the median score was 3). Responses were categorised as *low* when there was a consensus across available respondents that the described behaviour occurred never (i.e., the median score was 1). Responses were categorised as *medium* when the median score across available respondents was between these values. If an interviewee failed to respond or responded "I don't know" to a relevant question, their data were excluded. Thus, the median interview score for each question was based on between 1 and 4 respondent scores, depending on the responses of the individual respondents.

In order to evaluate the consistency of respondent scores for each dyad, an average deviation was calculated across the respondents for each question. A mean average deviation of 0.34 (SD = 0.09, range 0.15–0.46) was calculated across all dyads, respondents and

questions and questions indicating a generally high degree of agreement among respondents. The average deviation only exceeded 0.40 for four questions. Two of these questions (Questions 4 and 6) were associated with helping behaviours. The variation appeared to be largely between adult and child respondents. The other two questions (Questions 2 and 3) dealt with whether the peer treated the target child the same or differently than he or she treated other peers. Again, the variation on these questions was primarily between the adults and child respondents. An interesting finding was that at interview it appeared that adults interpreted differential treatment as negative, whereas the child respondents appeared to view differential treatment as a positive feature of the relationship (i.e., friends are treated different from other peers).

The individual interview questions were then initially sorted according to the number of dyads with high responses. Where high responses were equal, the questions were further sorted by the number of dyads with medium responses. Similarly, when the number of medium responses were equal, questions were sorted by the number of low responses. Questions were then ranked according to this sort. It should be noted that the I'll Help descriptions were treated in a different manner than the other types of relationships, given that lack of reciprocity is the key feature. In order to identify the balance in helping, questions were assigned to either the target student or nominated peer depending on whether the question most reflected the amount that the target student helped the peer or the peer helped the target student. That is, behaviours associated with the I'll Help relationship were ranked separately for both the target child and peer. The mean ranking for the target student was compared to that of the peer to see if they were similar, or if there was a marked degree of difference in questions associated with the peer helping the target student, as opposed to those questions associated with the target student helping the peer.

Interview completion rate and data sets

Forty percent of target students (*n* = 10), 61% of peers (*n* = 46), and 100% of teachers (*N* = 25) and parents (*N* = 25) completed the complete set of interview questions relevant to this study. Although some target students and peers were unable to complete the interview, data were still obtained for all dyads from parents and teachers. Specific information on the number of dyads for which no data were available for individual questions is provided in the final column of Table 1. Data were provided for all 74 dyads for 19 of the 31 questions.

Results

Interview data were examined to determine trends in behaviours associated with the different types of relationships. The ranked number of dyads that had high, medium, and low scores for each question are presented in Table 1. The type of relationship that each question is associated with, according to the research of Meyer et al. (1998), is also provided. For example, the question "Does [Peer] say hello to you when you see each other?" is shown in the first row. This question was ranked number one as it had the largest number of high-ranked responses (34). Thirty-three dyads also provided a medium-ranked response to this question and six dyads provided a low-ranked response. One dyad had no data for this question, and the question was associated in the research of Meyer et al. (1998) with the Just Another Child type of relationship.

　　　Thirty-one questions were ranked based on the number of dyads who had the greatest number of high responses. These questions described behaviours that dyads frequently or rarely engaged in as a part of their relationship. Over 30% of dyads reported that they always said hello to each other, treated the target student like everyone else, and did not treat the target student differently to everyone else. They also said that the target student and the peer would help each other when needed. Behaviours of shared interaction, such as doing fun things together and playing together at lunch and recess, were also ranked fairly highly by a number of dyads. Similarly, almost no dyads reported that the peer treated the target student

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like a "little kid." Other behaviours rarely reported by dyads included behaviours involving sharing of information, such as sitting around and talking, and talking about their problems. Finally, over 67% of dyads stated that they never went to each other's house outside of school hours.

Types of relationships

It was of interest to gain insight into how the questions that were associated with particular types of relationships as defined by Meyer et al. (1998) were ranked. Thus, the average rank was calculated for the question associated with each type of relationship. The questions associated with the Just Another Child relationship type had a mean ranking of 5, Regular Friend a mean ranking of 12.2, Ghost/Guest a mean ranking of 16.6, Best Friend a mean ranking of and 18, and Inclusion Child a mean ranking of 22.3.

Discussion

It was the aim of the current study to provide a descriptive examination of the behavioural characteristics of relationships formed between children with developmental disability and peers in inclusive settings. Overall dyads provided information for a large proportion of the questions. The majority of questions had missing data for 5 dyads or fewer.

Top-ranked questions tended to describe behaviour patterns commonly associated with interactions between children involved in reciprocal and positively viewed relationships, such as might be found in acquaintances or friends. For example, over 40% of dyads had high scores for three questions associated with the Just Another Child relationship type. "Does [Peer] say hello to you when you see him/her?" was the question with the highest number of high scores across all dyads. "Wanting to spend time together," "Doing fun things together," and "Playing together at recess and lunch" were behaviours that were rated high by 34%, 26%, and 15% of dyads, respectively. All three behaviours are associated with descriptions of the Regular Friend type of relationship as defined by Meyer et al. (1998). In comparison,

bottom-ranked questions were related to interactions of differential treatment of target

students by peers such as might be associated with relationships not commonly found

between typically developing children as described by Meyer et al. (1998). In addition,

bottom-ranked behaviours often reflected patterns of interaction between dyads that did not

include more specifically planned and intimate interactions, which is indicated by finding that

the greatest number of dyads had a low ranking for the question, "Do you go to each other's

house after school or on weekends?"

Behavioural descriptions associated with each type of relationship were ranked, and

mean rankings were then examined. The mean ranking for behavioural descriptions

associated with the Just Another Child type of relationship was higher (mean rank = 5) than

for the other types of relationships. This suggests that dyads reported that relationships

between target students and peers were most frequently associated with behaviours of equal

treatment and sociability, similar to behaviours often described in relationships commonly

classified as an acquaintance relationship. In addition, this type of relationship, described by

Meyer et al. (1998) as the Just Another Child type of relationship, is often linked with

feelings of belonging and acceptance between participants in the dyad. The prevalence of the

behavioural descriptors associated with the Just Another Child relationship in the present

study is consistent with the findings of Hall and McGregor (2000) that children with

disability may be accepted by typically developing peers in inclusive settings, but that this

acceptance does not necessarily equate to a close relationship.

Questions associated with the Regular Friend type of relationship had the next highest

mean ranking with 3 of the questions clustered together with individual rankings of 5, 7, and

8. This indicates that respondents for many dyads reported that high levels of behaviours such

as playing together at school, doing fun things together, and spending time together typified

their relationships. An interesting finding was that Question 9, which directly asked dyads if

the peer called the target student his or her friend, was ranked lower with an individual

ranking of 18. More important, the lowest ranked behaviour associated with the Regular

Friend relationship asked dyads if the target student and peer sat around talking about things.

This would suggest that although dyads may have frequently played together and enjoyed

similar activities, they did not share information to the same extent. It is possible that such

sharing of information may assist in setting the platform for promoting the relationship to one

involving a more intimate type of bond. Question 29, which asked dyads if they went to each

other's houses, had one of the lowest individual rankings of all the questions. According to

Meyer et al. (1998), this behaviour is very important in distinguishing between a general

friendship and the more intimate Best Friend relationship. In addition, going to each other's

houses may be a forum for dyads to develop shared communication.

In their discussion on "frames of friendship," Meyer et al. (1998) suggested that in

addition to the types of relationships commonly found between typically developing children,

three additional types of relationships were unique to the relationships between children with

disability and peers, particularly those in inclusive settings. The chief feature of these three

types of relationships was the differential and/or negative treatment of the child with a

disability by the peer. In the current study, some behaviours associated with these atypical

relationships were ranked high for some dyads. Ghost/Guest had the highest mean ranking of

these three atypical relationships, indicating behaviours associated with ignoring of the target

student by peers were moderately common. As mentioned previously, this result might not be

surprising if the selection of dyads was based on a random sampling of peers. Peers were

selected, however, on the basis that they were considered by target students and teachers to

have the closest relationships to target students. Thus, the fact that some dyads reported they

did not want to spend time together suggests that some target students may have had very

poor relationships with any peer. This supports the research of Siperstein et al. (2007) that a

large sample of middle school students indicated they did not want to interact socially with peers with intellectual disability, particularly outside of school.

Questions associated with the Inclusion Child type of relationship had the lowest mean ranking of all the relationship types identified by Meyer et al. (1998). Low rankings for questions associated with the Inclusion Child type of relationship indicate that few dyads reported that the peer treated the target student as "special" or "different." A few but small group of dyads, however, did have high rankings for these behaviours, particularly the questions that asked if peers treated the target student the same or different from everyone else. These questions were originally intended to reflect negative treatment of the target child (i.e., treated differently because they had a disability), but target students and peers often appeared in interview to interpret these questions as reflecting a positive aspect of friendship, in that they would treat their friends differently from the way they would an acquaintance. Thus, some degree of caution is warranted in interpreting results regarding this type of relationship. Nevertheless, overall these findings corroborate those of previous researchers (Cutts & Sigafoos, 2001; Meyer et al., 1998; Richardson & Schwartz, 1998; Staub, 1998) in that, although very positive relationships are found between many children with disability and peers in inclusive settings, some children are ignored or differentially treated by their peers.

The mean rankings for the target student analysis of I'll Help and the peer analysis of I'll Help were fairly similar at 18.4 and 21.3, respectively, indicating that peers helped target students only slightly more than target students helped peers. Since Meyer et al. (1998) describe the I'll Help relationship as characterised by inequitable degrees of helping between target students and peers, these data would suggest that helping was fairly equal and therefore dyads did not engage in behaviours associated with the I'll Help type of relationship. While helping was reported as being fairly common, it was usually equally balanced between target

students and nominated peers. These findings are promising in light of previous research with typically developing children (Bukowski, Hoza, & Boivin, 1994; Parker & Asher, 1993) where helping has been found to be both common and a potentially positive feature in relationships, as long as it is balanced between both members of the dyad.

Limitations and future directions

A number of limitations of the present study should be acknowledged. While information was collected from multiple sources (target students, peers, teachers, and parents), the data presented here was exclusively based on interviews. The present research was part of a larger study that included an observational component, but while observational data did provide information on dyads' interactions, observational data were insufficient to allow meaningful judgements regarding the type of relationships existing between dyads (Webster & Carter, 2010c). Additionally, the research was conducted in Alice Springs, which is an urban community with its own unique characteristics. Further research should be conducted to check whether the results generalise to other settings. The present study is preliminary and provides only a cross-sectional snapshot of relationships. The nature of relationships would be expected to fluctuate (Cutts & Sigafoos, 2001; Meyer et al., 1998; Richardson & Schwartz, 1998; Staub, 1998), change, and evolve over time, and an important focus for future research should be to examine these longitudinal changes.

Two other directions for future research might be considered. First, it would seem valuable to examine a wider and more representative range of relationships, beyond the closest peers. Second, it would be appropriate to replicate this research in other communities. The current sample was gathered in a large remote town with a culturally diverse population, which contrasts with the relatively monocultural samples examined in some other studies (e.g., Bauminger & Kasari, 2000; Cutts & Sigafoos, 2001; Freeman & Kasari, 2002).

Nevertheless, Alice Springs, like many towns, is a somewhat idiosyncratic community and it cannot be assumed automatically that the results can be generalised to other populations.

Conclusion

This exploratory study examined the nature of relationships between 25 children with disability and their closest peers in inclusive school settings. The majority of the 74 dyads, who were all attending inclusive schools, appeared to be involved in relationships characterised by mutual acceptance, play, and shared interests. Respondents reported, however, much less frequent engagement in behaviours such as sharing of intimate information and going to each other's house, which are most frequently associated with Best Friend relationships. In addition, there was some report that peers engaged in negative differential treatment or lack of acknowledgement of target students in a minority of dyads. In summary, it appeared that the majority of children were socially accepted by their peers and had developed Regular Friendships. In addition, a few target children had progressed to more intimate relationships. Several directions for future research have been proposed, including expanding the research to a wider range of peers and relationships and to replicate the research in other communities.

Author note

This paper was completed in association with a wider research project as a part of the requirements of a PhD by the first author and under the supervision of the second author. We certify that this project did not receive any external funding and no restrictions have been imposed on free access to, or publication of, the research data. The authors have no financial or nonfinancial conflicts of interest with respect to this manuscript.

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Table 1. Ranked questions and associated relationship type questions

Question rank and number	Question	Relationship type	High	Medium	Low	No Data
1.	Does [Peer] say hello to you when you see each other? *Do you say hello to* [Target Student] *when you see him/her?*[d]	JAC	34	33	6	1
2.	Does [Peer] treat you like everyone else? *Do you treat* [Target Student] *like everyone else?*[d]	JAC	31	35	7	1
3.	(Negative) Does [Peer] treat you different than everyone else? *Do you treat* [Target Student] *different than everyone else?*[d]	JAC	29	39	5	1
4.	Would [Peer] help you if you needed it? *Would you help* [Target Student] *if he/she needed it?*[b]	IH-TS	27	42	5	0
5.	Do you want to spend time with [Peer]?[d]	RF	25	39	7	3
6.	Would you help [Peer] if he/she needed it? *Would* [Target Student] *help you if he/she needed it?*[c]	IH-P	23	43	8	0
7.	Do you and [Peer] do fun things together?[a]	RF	19	48	3	4
8.	Do you and [Peer] play together at recess and lunch?[a]	RF	11	56	7	0
9.	(Negative) Does [Peer] call you his/her friend? *Do you call* [Target Student] *your friend?*[d]	JAC	10	29	35	
10.	Do you see [Peer] playing close to you on the playground?[d]	JAC	8	57	7	
11.	Do you and [Peer] like the same things?[a]	BF	7	57	8	
12.	Do you and [Peer] spend your free time together?[a]	BF	7	52	15	
13.	(Negative) Do you want to spend time with [Peer]?[d]	GG	7	39	25	
14.	(Negative) Does [Peer] treat you like everyone else?[d]	IC	7	35	31	
15.	(Negative) Does [Peer] say hello to you when you see each other? *Do you say hello to* [Target Student] *when you see him/her?*[d]	GG	6	34	33	
16.	Does [Peer] help you with things so you can get done quicker?[a, f]	IH-TS	6	30	33	5
17.	Do you and [Peer] tell each other secrets?[a]	BF	6	28	32	

18.	Does [Peer] call you his/her friend. *Do you call* [Target Student] *your friend.*[d]	RF	5	29	10	
19.	Does [Peer] treat you different than everyone else?[d]	IC	4	39	29	
20.	Does [Peer] teach you things at school or home?[d, f]	IH-TS	4	34	27	9
21.	Does [Peer] help you do things? *Do you help (Target Student) do things?*[d]	IH-TS	3	58	11	2
22.	(Negative) Does [Peer] talk to you when he sees you on the playground or in class. *Do you talk to* [Target Student] *when you see him on the playground or in class.*[d]	GG	3	43	28	
23.	Do you and [Peer] just sit around and talk about things like school, sports, and things we like.[b]	RF	3	39	30	
24.	Does [Peer] help you with things so you can get done quicker?[d, e]	IH-P	3	15	27	29
25.	Do you and [Peer] tell each other about your problems.[a]	BF	2	31	38	
26.	Does [Peer] treat you like a little kid (baby).[d]	IC	2	24	46	
27.	Does [Peer] teach you things at school or home?[d, e]	IH-P	2	14	26	32
28.	Do you help [Peer] do things? *Does* [Target Student] *help you do things?*[d]	IH-P	1	42	29	2
29.	Do you and [Peer] go to each other's house after school and on weekends.[1]	BF	1	23	50	
30.	Does [Peer] tell you that you are "special"?[d]	IC	1	19	51	
31.	Does [Peer] do things for you that can do for yourself? *Do you do things for* [Target Student] *that he/she can doe for himself/herself?*[d]	IH-TS	0	33	39	2

Note. JAC = Just Another Child; RF = Regular Friend; BF = Best Friend; IC = Inclusion Child; GG = Ghost/Guest; IH-P = I'll Help Peer; IH-TS = I'll Help Target Student.
[a]Indicates item taken from the Friendship Quality Questionnaire (Parker & Asher, 1993). [b]Indicates item taken from the Friendship Quality Scale (Bukowski, Hoza, & Boivin, 1994). [c]Indicates items scored in a reverse direction. [d]Indicates items that were derived from descriptions of behaviours by Meyer et al. (1998). [e]Question was only asked of the peer. [f]Question was only asked of target student, parent, and teacher.

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