PERCEPTIONS OF STUDENTS WITH MULTIPLE DISABILITIES AND TYPICALLY DEVELOPING PEERS

**Alanna C. Bebech, Tyler D. Oliver,
Alexandra M. Limperos, Benjamin P. Schade, Karen H. Larwin**[i]
Youngstown State University, Youngstown, Ohio, United States of America

Abstract:

The purpose of this study was to investigate if students with multiple disabilities perceived a lower level of feeling cared about, more difficulty in school, and decreased mental health status, when compared to their typically developing peers. Data from 244 participants were extracted from the National Survey of Adolescent Health. Of this sample, 36 participants were identified as having multiple disabilities. Independent samples t-tests and multivariate analyses of variance were used to analyze the sample data. No significant results were found, indicating that there are no differences between the perceptions of students with multiple disabilities and their typically developing peers.

Keywords: multiple disabilities, mental health status, intellectual disability

Introduction

Multiple Disabilities (MD) refers to the presence of two or more impairments that significantly influence an individual's ability to learn and function without adaptations. As cited by Mastropieri and Scruggs (2014), MD is specifically defined as:

> *"Concomitant [simultaneous] impairments (such as intellectual disability-blindness, intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness."*

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[i] Correspondent author: email khlarwin@ysu.edu

The prevalence of individuals with MD is about 0.20% of school-age population and about 2.2% of students served by special education services. Individuals with moderate, severe, and profound disabilities represent about 15% of all individuals with intellectual disability, 0.12% of the school-age population and 1.3 % of students served by special education services (Mastropieri & Scruggs, 2014).

Characteristically, MD is a combination of various disabilities: speech and language impairment, physical mobility, learning, intellectual disability, visual impairment, hearing impairment, and/or traumatic brain injury. Children with MD will typically share deficits in five distinct areas of development: intellectual functioning, adaptive skills, motor skills, sensory functioning, and communication skills. These deficits will adversely impact the individuals' ability to learn (Mastropieri & Scruggs, 2014).

A diagnosis of MD has not been clearly defined in most research articles due to the diverse combinations of potential impairments. Thus, there is an exceptional need for a universally accepted definition of this diagnosis. According to Nakken and Vlaskamp (2007), the definition that is most commonly used in international research is:

> …*multiple disability is attributed to every individual with more than one discernable disability in executing functions. This can be an individual with a mild intellectual disability and a severe psychiatric or behavioral problem, as well as an individual with a profound intellectual disability and epilepsy."*
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> *(p. 84)*

This definition of MD provides a basis for current and future research, which may help to decrease the negative stigma attached to disabilities in general (Sheehy & Nind, 2005). Placements in educational settings and programs are usually determined by the case conference team and dependent on the priorities for the student, their strengths, and needs. Inclusion for students with and without disabilities can be beneficial for both groups. Kurth, Morningstar, and Kozleski (2014) noted that students with severe disabilities have been—and continue to be—served incommensurate with restrictive educational placements, and that there have been no current efforts to reduce these persisting deficits in restrictive placements for students with severe disabilities.

Kurth and colleagues (2014) noted that despite having evidence to support inclusive programming to enhance student outcomes, restrictive learning environments often endure for students with severe disabilities. However, to begin the inclusion process it may be best to focus on students with less severe disabilities, as well as students who are not at the beginning or end of their educational programming (Lakhan, 2013). Creating unique experiences for students with and without disabilities to work together increases

positive attitudes as well as provides each student with differing experiences (Tomasik, 2007). A study conducted by Christani, Revetti, Young, and Larwin (2015) discovered that grades of students receiving special education services were not related to attendance history; this finding suggests that a higher level of support may exist for students with disabilities, regardless of being present or absent at school.

There are multiple perceptions on whether inclusion is academically beneficial to typically developing students and students with MD from the perspectives of teachers and children. In many countries, the inclusion of students with MD into general education classrooms has been a common practice and in others, it's a relatively new concept still being tested (Mukhopadhyay, 2014). Bennett and Gallagher (2013) have reported that educators from Canada generally hold positive attitudes towards the idea of inclusive classroom settings. Contrarily, Mukhopadhay (2014) discussed how educators from Botswana generally hold negative attitudes of including students with MD in general education classrooms. Lelgemann, Singer, Walter-Klose, and Lubbeke (2012) noted that while inclusion may be ideal for some students with MD, it may not be beneficial to all students, depending on the severity of the disabilities served. In some instances, a lack of the desire to provide inclusive programming may not exist, but rather a lack of knowledge regarding implementation strategies and how to appropriately address varying students' needs may exist, especially for engaging and communicating with this student population (de Bortoli, Arthur-Kelly, Mathisen, Foreman, & Balandin, 2010).

Papaioanno and Evaggelinou (2014) conducted a study in which typically developing children were exposed to an experience involving disability sports and a leisure summer camp. The researchers noted that it is a natural behavior of children to want to share in success (i.e., winning a game). It was observed that exposure to inclusive activities results in a positive attitudinal shift for children; such perceptions are vitally important to acknowledge and consider when determining if there is a difference between children's perceptions of the benefits to including students with MD with their typically developing peers (Papaioanno & Evaggelinou). This finding has been supported by other researchers (King et al., 2014; Nijs, Penne, Vlaskamp, & Maes, 2016), who have noted that children with MD appear to enjoy interacting with each other during group social activities. Further, Biastro, Frank, and Larwin (2015), suggested that students with disabilities (in their study, orthopedic impairments) rated themselves as being as happy as their nondisabled peers when engaging in social events. However, a study conducted by Darling and Circo (2015) provided further clarification to the Biastro et al. (2015): "*presenting preferred items and activities increased the indices of happiness compared to baseline rates*" (p. 117). Thus, consistent with other research, it appears that engaging in events that are perceived as pleasurable may have the greatest impact on students' happiness and

self-perceptions (Ceci & Kuman, 2016). King and colleagues (2014) noted that allowing students with severe disabilities to make choices during their leisure activities may also be an important predictor of the students' social-emotional outcomes.

Although typically developing children have higher levels of interaction within the family unit than their peers with disabilities (Axelsson, Granlund, & Wilder, 2013), inclusion can be a way to facilitate increased social engagement and level of feeling cared for (Arthur-Kelly, Foreman, Bennett, & Pascoe, 2008). A later study conducted by Axelsson, Imms, and Wilder (2014) suggests that because parents and families are within the proximal environment of their children with MD, "*the parent's evolving knowledge about the child is imperative*" (p. 2175) to encourage appropriate social interaction and behavioral regulation. Further, Kamstra, van der Putten, and Vlaskamp (2015) noted that social networking and interaction with informal social contacts is rare for children with MD, and as they age, parental interaction is less common and interaction with clinicians and service providers becomes more common. This finding suggests that social withdrawal and social isolation may result as individuals with MD age. Similar findings of few social contacts and opportunities for interaction were also reported by Wilder and Granlund (2015), who noted that these individuals' lives were primarily centered on those providing care for them. Providing opportunities for students with severe disabilities to participate in social clubs or school organizations may be an appropriate alternative to establishing peer relationships and interactions (Pence & Dymond, 2016) where the students' support staff may be present or available to assist with the students' varying needs.

Positive attitudes were exhibited by children who participated in a 10-week inclusive educational program in Greece (Papageorgiou, Andreou, & Soulis, 2008). In a similar study conducted by Chmiliar (2009), teachers, parents, and students with a disability who participated in an inclusive classroom were interviewed on their feeling towards an inclusive classroom. All parents participating in the study indicated that the inclusive classroom was the best placement for their child. Notably, there were observed differences between initial perceptions of interactions compared to final perceptions of interaction, indicating that students felt more included and cared for as the study progressed (Chmiliar, 2009). A recent evaluation of inclusive educational programming found drastic improvements in peer socialization and academic performance when compared to homologous programming provided by adult-only support staff (Carter et al., 2016).

In regards to students' self-perceptions, Brown and Cohen (1996) suggest that students may develop learned helpfulness based on obstacles to complete academic or behavioral tasks. A lack of successful independent experiences or activities can lead to a pattern of dependency for a child with MD. Poor perceptions emerging from these

students could have a negative impact permeating all aspects of their lives, including educational performance. Similar evidence found by Varsamis and Agaliotis (2011) has concluded that students with MD "*set low-level goals, presented low-level performance, and evaluated themselves accordingly*" (p. 1553). This finding suggests that while students with MD generally have positive self-perceptions, they have inversely demonstrated low performance. This over-estimation could, indeed, lead to feelings of learned helplessness or over-dependence on other individuals for task completion.

The purpose of the current study was to address the paucity of research involving students with MD; specifically, the study aimed to investigate if students with MD—compared to their typically developing peers—perceived a lower level of feeling cared for, more difficulty in school, and decreased mental health status. As future practitioners and educators, it is important to understand how students with disabilities perceive themselves to be able to understand how that will affect their educational performance. The study of MD—as a low incidence disability category (Mastropieri & Scruggs, 2014)—may be complex due to small sample sizes and low reporting rates. Inclusion is one strategy that past research indicates is a way to facilitate positive perceptions from students with multiple disabilities (Arthur-Kelly et al., 2008). We expected that the data will produce results to indicate that students with MD had lower levels of feeling cared for, had increased trouble in school, and had increased episodes of mental health issues.

Method

Participants

A sample of n = 244 participants were included in the current investigation. Thirty-six participants within the sample were identified as having multiple disabilities. Within the sample there were n = 71 females and n = 63 males, the remaining n = 110 did not provide a response regarding their gender.

Instrumentation and Procedures

The data was extracted from the National Survey of Adolescent Health. Participants were asked to respond to a survey. The study information can be located at http://www.cpc.unc.edu/projects/addhealth. Participants were asked to answer a number of questions regarding physical limitations and disabilities. This information was used to create the Multiple Disabilities factor using response to 64 variables from the data set. These variables included items from the parent survey, child specific section, items C39, C50-C55, and C60_1-C62_11. Additionally, in this factor were items from the student survey, section 6: Physical/Functional Limitations, items S6Q1-S6Q20, S6Q22-S6Q23,

S6Q25 and, S6Q30- S6Q38. A categorical variable was then created based scores of the MD factor. Researchers concluded that a score of 20 and above in the MD factor qualified a participant as being identified as having MD. A secondary categorical variable was created and indicated group membership where the participants MDC item was coded as 0 for not having multiple disabilities and 1 for having multiple disabilities.

Three factors were then created based on the research questions. The first factor, Trouble in School, was created using items S5Q15-S5Q18. The second factor, Feelings, was created using S10Q4-S10Q6, S10Q9, S10Q14, and S10Q17. S10Q4 was recoded as the adverse of its quantities to align with the other items in the factor. The final factor, Caring, was created with S35Q1, S35Q2, and S35Q4.

Results

The current investigation examined students' reported level of having trouble in school, feeling, and sense of caring. The investigation hypothesis was that students with MD—compared to typically developing students—perceive a lower level of feeling cared about, more difficulty in school, and decreased mental health status. Basic descriptive analyses revealed that the students ($n = 244$) yielded an average score of 11.05 on having Multiple Disabilities ($M = 11.05$, $SD = 8.84$). Additionally, descriptive analyses reveal that the students ($n = 244$) yielded an average score on having Multiple Disabilities category of 0.15 ($M = 0.15$, $SD = 0.36$). Basic descriptive analyses reveal that the students ($n = 232$) yielded an average score on having Trouble in School of 5.35 ($M = 5.35$, $SD = 3.52$). Basic descriptive analyses reveal that the students ($n = 240$) yielded an average score on having Feeling of 5.08 ($M = 5.08$, $SD = 2.83$). Basic descriptive analyses reveal that the students ($n = 239$) yielded an average score on having Caring of 11.97 ($M = 11.97$, $SD = 2.05$).

The Independent Samples t-test was used to assess if differences existed across the two groups (MD and not MD) on the three constructed factors. The analyses revealed that there are no differences between Trouble in School and the MD category, $t(230) = 1.21$, $p = .54$, CI_{95} [-.50, 2.10], that there are no differences between Feeling and the MD category, $t(238) = -1.50$, $p = .18$, CI_{95} [-1.83, .25], and that there are no differences between Caring and the MD category, $t(237) = -.72$, $p = .41$, CI_{95} [-1.05, .49]. Further examination of the zero-order correlation between the factors reveals moderate significant relationships between the factors. These results are presented in Table 1.

Table 1: Zero-Order Correlations between Factors

Variable	Trouble In School	Feeling	Caring
Trouble In School	-	.413**	-.301**
Feeling		-	-.320**
Caring			-

** Correlation is significant at the 0.01 level (2-tailed).

Since the results in Table 1 reveal a substantial overlap in all three factors, a multivariate analysis of variance was conducted using the MDC categorical variable across the three constructed factors. Results reveal no significant results from the multivariate analysis, *p* <.05.

Discussion

Based on the analyses performed, there are no significant differences between the perceptions of those with MD compared to typically developing peers regarding feeling cared about, having difficulty in school, and having a decreased mental health status. These non-significant results were found based on Independent Samples t-tests and MANOVA results. No differences were found among groups using either test.

While there were no significant differences, the result is a favorable when looking at societal views. Overall, there appears to be a negative stigma attached to having a disability. Based on the results of this study, there is not a difference between children with MD and their typically developing peers regarding having trouble in school, feeling cared about, and mental health status. It is hypothesized that inclusive initiatives in schools have decreased the stigma that is attached to special education and students with disabilities. Additionally, educational programs that include students with disabilities potentially increased time spent together between students with MD and their typically developing peers. Finally, there are no differences between groups because of who was included in the sample; a different sample of 36 children with MD may have yielded differing results.

The results of the current investigation may be limited by the data as well as the procedures used to analyze the data. The first potential problem is that researchers created a cutoff score to generate the MD factor. This cutoff score was arbitrarily created to classify the students as having MD or having typical development. Lastly, the survey was a self-report. Self-reports may lead to false reporting errors, including lying or bias of the participant. However, the computed MD and MDC factors used information from multiple sources of responses (i.e., parents and students)

Other potential explanations for the results yielded in this study were considered. One consideration includes previous exposure to students with multiple disabilities, including family members or friends. The students with MD who participated in the study may have higher self-esteem, which could contribute to their perceptions of their feelings and if others cared about them. An additional explanation is that the students with MD in the current investigation have differing experiences and perceptions about the examined factors. There is no way to decipher if this sample can be generalized to the entire population of people with MD; however, it is likely that the data represent the full range of levels of disabilities experienced by adolescents.

The researchers have multiple future questions and recommendations to help expand this area of research. The first suggestion is to know what type of inclusion program, if any, exists at the school. This is an important facet of information when disseminating the results and understanding the differences between typically developing peers and the students with MD. The next suggestion is to know the familiarity of the typically developing peers to the students with MD (i.e., how long they have been going to school together, have been in classes together, have had personal relationships with a student with MD, etc.). There is a persistent lacuna in the research regarding the perceptions of MD from those with the diagnosis and those around the person with MD. Creating new research in the area of students' perception will infuse the gap in current research. In general, there is a need for continued expansion of research on students with MD in the schools and educational-based settings.

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