Kwantlen Psychology Student Journal
Issue 2, July 2020
Kwantlen Polytechnic University

Impact of Language on the Expectations of Individuals Working with Students on the Autism Spectrum

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Abstract

Although autism spectrum disorder (ASD) has increased in prevalence over the past sixty-years, the general treatment, understanding, and expectations associated with this designation remain rudimentary at times (Fombonne, 2018). This study investigated the perception of, and expectations placed on an individual with ASD by manipulating descriptive vocabulary. A sample of 220 participants were randomly assigned to either a clinical language (CL) or person-centered language (PCL) scenario involving a student on the autism spectrum and were asked to respond to a set of items about their attitudes and expectations of this individual. Results were analysed using *t*-test, chi-square, and ANOVA; they reflected support for our hypotheses, participants in the CL group would report more apprehension or nervousness regarding the student and presume lower intellect. Contrary to our hypotheses, participants in the CL group did not place academic success lower on the list of priorities, did not recommend the student maintain closer proximity to their support worker, or further proximity from their peers. These results have the potential to raise awareness regarding potential stigma when working with students with ASD.

Keywords: autism spectrum disorder, clinical language, person-centered language, expectations, stigma

[1] field.manda@gmail.com; This paper was not written for any class or lab, but was the result of genuine curiosity regarding the perception of Autism Spectrum Disorder.
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Impact of Language on the Expectations of Individuals Working with Students on the Autism Spectrum

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that is diagnostically characterized by atypical social skills, communication abnormalities, and repetitive behaviours (Torres et al., 2013). This condition is referred to as a spectrum, as each individual maintains different characteristics, strengths, and weaknesses. ASD rates have been escalating over the past sixty years due to increased prevalence in conjunction with more accurate designation processes (Fombonne, 2018). ASD is still not completely understood, however, neuroscience-based research reveals various atypicalities across the nervous system. Applications of this research suggest that sensory processing differences and planning, execution, and regulation of movement are drivers of atypical behaviour (Torres & Whyatt, 2017). Furthermore, the regulation and navigation of one's body in an environment may have more to do with ASD than intelligence or comprehension. Despite advances being made regarding the understanding and treatment of this condition, the general perception of ASD remains quite rudimentary. The assumption that ASD is synonymous with intellectual disability is incredibly common and incorrect (Thurm et al., 2019). It is this type of mischaracterization, and the stigma associated with diagnostic labels, that can lead to altered perceptions of an autistic person's ability. For students with this designation, records are often kept within schools to inform various service providers of their academic, social, emotional, and physical needs. These records typically contain a large amount of clinical and behavioural-focused language. This language, though used to inform, has the potential to inadvertently influence the expectations placed on these students by their service providers, and moreover, can result in lessened expectations, education, and success for a student with ASD (Corrigan, 2007).

Stigma and discrimination are prominent adverse side effects that are present with a wide variety of diagnoses (Corrigan, 2007). Corrigan (2007) noted that diagnostic labels, though used to aid in self-identification and understanding, can actually promote stigma and a negative perception of diagnosis. These diagnoses in conjunction with clinical vocabulary can cause individuals to display self-stigma and avoid their diagnostic label; this avoidance may lead to the refusal of treatment or support. Additionally, diagnosis may affect an individual's ability to pursue typical experiences, such as education, independent living, and work, as a result of external prejudice (Corrigan, 2007). These effects have the potential to be exacerbated

by the continuous use of clinical vocabulary to categorize an individual, maintaining a diagnosis throughout their lifespan.

Clinical language (CL) is the medical-based vocabulary used most often to describe individuals with a designation throughout diagnostic and educational settings. Conversely, person-centered language (PCL) is a manner of description that utilizes more accessible, non-clinical vocabulary, often placing the focus on the individual as opposed to their behaviours. This research could contribute to a shift in language around ASD, to be less about diagnosis and more about the individual. This shift in language could then influence expectations and the manner in which these students are supported. Thus, we aim to examine the effects that language can have on expectations and assumptions regarding an individual with ASD by comparing responses to a description of a student with ASD that used either CL or PCL.

We hypothesized that participants in the CL group would report more apprehension or nervousness regarding the student, presume lower intellect, place academic success lower on the list of priorities, recommend the student maintain closer proximity to their support worker, and further proximity from their peers, relative to the PCL group. In contrast, we hypothesized that participants in the PCL group would report more excitement and intrigue regarding the student, presume higher intellect, place academic success higher on the list of priorities, recommend the student maintain further proximity from their support worker, and closer proximity to their peers, relative to the CL group.

Method

Participants

A total of 220 participants were recruited for this study through the university's research pool. Participants were randomly assigned to either a clinical language group (n = 110) or a person-centered language group (n = 110). The CL group was primarily composed of participants aged 17-21 (53%) and 22-26 (34%) and were predominantly female (78%). Although programs of study included general studies, science, health care, and fine arts, psychology students represented the greatest proportion (64%) with participants largely within the first two years of their studies (58%). The PCL group was primarily composed of participants aged 17-21 (59%) and 22-26 (33%) and were also mostly female (81%). Again, participants consisted primarily of psychology students (57%) and were largely within the first two years of their studies (59%).

Materials

Participants were instructed to read a description of a student with ASD and answer a set of questions that had them reflect on their personal feelings towards the student, presumed competence of the student, and to make choices about how best to support that student in an educational setting. These descriptions were either CL or PCL based. The CL description implemented commonly-used vocabulary, such as "severely," "profoundly," "non-verbal," "low-functioning," "dysregulation," and "self-stimulate." Conversely, the PCL description avoided these words and focused on how to foster success with the student while addressing the same strengths and weaknesses as the CL description (see Appendix A and B for descriptions).

Following the review of one of the descriptions, the participants were asked seven questions. First, "Are you familiar with Autism Spectrum Disorder?", with response options of "definitely yes," "probably yes," "might or might not," "probably not," and "definitely not." Second, "If you were asked to help support Adam for the day, how would you feel?" reflected choices of "nervous," "scared," "intrigued," "excited," "none," or "other." Third, the question "Based on the information you were given, at what level do you think Adam is performing academically?" allotted options of "significantly higher than average grade level," "slightly higher than average grade level," "average grade level," "slightly lower than average grade level," and "significantly lower than average grade level." Fourth, "Rate your priorities for Adam from 1-5" asked participants to sequentially prioritize the options, with 1 being the most important and 5 being the least important. Fifth, "Where do you think the best place for Adam to complete his work would be?" was provided with options of varying proximity to peers, including "in the classroom with peers," "at a designated desk in a safe and separate area," "the sensory room (quiet room across the hall)," and "a separate class for students who also have autism spectrum disorder." Sixth, "How close would you recommend Support Workers stay to Adam within the school?" reflected options of varying support worker supervision, including "within arm's reach," "varied distance but between him and other students at all times," "close enough to see at all times and know where he is but not necessary to be with him at all times." Lastly, "How close would you recommend Support Workers stay to Adam outside of the school?" provided the same options as question number six.

Procedure

Data was collected anonymously online using a survey software named Qualtrics. After providing electronic consent, participants were directed to answer the demographic questions, followed by either the CL or PCL description, and finally, the survey items. Participants could receive bonus credit for an eligible psychology course for their participation. The entire duration of the survey lasted between five and ten minutes.

Results

Overall, the sample reported that they were familiar with autism spectrum disorder (M = 2.01; SD = 1.10), as measured by a 5-point scale, where 1 indicates a high level of familiarity. There were no differences in familiarity between the clinical and person-centered groups, $t(218) = 0.37$, $p = .714$, $d = 0.05$.

We next compared the CL and PCL groups on the six dependent variables. We conducted a chi-square analysis to compare the two groups on how they would feel if they had to support the target child for the day. The results of this analysis indicated a statistically significant and nearly medium-sized difference between the two groups, χ^2 (5, n = 220) = 15.00, p = .01, **V** = .26. As seen in Table 1, nearly 50% of participants in the CL group reported that they would feel scared, while 40% of participants in the PCL group reported they would feel scared. Participants in the PCL group were also more likely to report being intrigued or excited when compared to the CL group.

We then conducted a t-test to compare the two language groups on the level at which they believed the target child was performing academically. The results of this analysis indicated that the CL group (M = 4.00, SD = 0.75) thought the target child was performing at a lower level academically, compared to the PCL group (M = 3.67, SD = 0.84), $t(218) = 3.05$, p = .003, d = 0.41 with a medium-sized effect.

Next, we conducted a chi-square test to compare responses from the two groups on where the best place would be for the target child to complete his work. The results of this analysis indicated no statistically significant difference between the groups, χ^2 (3, n = 220) = 0.75, p = .861, **V** = .06. Overall, the participants felt the best place for the target child to work was in the classroom with peers (33%), followed by the sensory room (25%), a separate class for students with ASD (22%), then a segregated area (20%).

We also conducted chi-square analyses to compare the language groups on how close the support worker should stay with the target child within the school and outside of the school,

respectively. The results of these analyses indicated that there were no statistically significant differences between the groups, χ^2 (3, n = 220) = 2.82, p = .421, **V** = .11 and χ^2 (3, n = 220) = 5.82, p = .121, **V** = .16, respectively. Overall, the sample indicated that, within the school, the support worker should stay within arm's reach (54%), then close enough to see at all times (24%), then at a varied distance but between him and other students (15%), then not needing to be with him at all times (8%). Outside of the school, participants reported that the support worker should stay within arm's reach (35%), then at a varied distance but between him and other students (25%), then not needing to be with him at all times (23%), then close enough to see at all times (17%).

Finally, for the rank order data, in which participants had to rank the importance of five priority areas, we assigned a score of five to the first-place rank, a score of four to the second-place rank, and so on. We then analyzed the data using a mixed analysis of variance (ANOVA), with the language groups as a between groups variable and the priority area as a within groups variable. We used the Greenhouse-Geisser correction because of a violation of the sphericity assumption. Table 2 presents the descriptive statistics for these priority areas by language group. As seen in Table 3, there was a large and statistically significant main effect for priority area. Follow-up pairwise comparisons using a Bonferonni correction, indicated that all areas were statistically different from one another (p < .001). The level of prioritization in an educational setting given to the areas, in order from most prioritized to least was physical safety, communication, life skills, peer interaction, and academic success. Contrary to the hypotheses, there was no statistically significant main effect for the language groups nor an interaction between language and priority area.

Discussion

This study investigated the influence of language on the expectations placed on individuals with ASD. We first hypothesized that participants who received a description written in clinical language would report more apprehension or nervousness regarding the student, and in contrast, that participants who read a description with person-centered language would report more excitement and intrigue regarding the student. This hypothesis was supported by our data. The clinical terms used throughout the CL student description, such as "low-functioning" and "profoundly non-verbal," represent common language used in diagnostic or educational reports. These terms are effective at separating the individual from

their behaviours, resulting in a relatively dehumanized account. The clinical language caused our participants to react in a way that assumes less of the student, and is, perhaps, not dissimilar to how a professional reading the same description would feel. In a professional or educational setting, these feelings and apprehensions are carried into scenarios where hands-on work occurs and professional recommendations are made. Though ASD is commonly associated with a lack of emotional perception, this is not correct for all individuals. In fact, some research suggests that individuals with ASD are as accurate or more so, at perceiving emotion via body language, when compared to neurotypical peers (Peterson et al., 2015). In conjunction with the heightened anxiety and sensory dysregulation associated with ASD, the presence of simple apprehension and anxiety regarding a student with ASD could cause adverse effects.

Our second hypothesis, that the CL group would presume lower intellect compared to the PCL group was additionally supported by our data with a medium-sized effect. The language used in the CL student description, such as "low-functioning", maintains a perception of intellectual disability; however, as noted earlier, ASD is not synonymous with intellectual disability. The term "low-functioning" is often used as a synonym for non-verbal, and thus, not intellectually able. Behaviours such as limited or absent speech, atypical movement, lack of interactive ability, or even aggression are often perceived as signs of intellectual deficiency. In contrast, research suggests that these behaviours may manifest as a result of physiological factors, such as motor and sensory atypicality, as opposed to psychological factors, such as intelligence (Torres & Whyatt, 2017).

Our third hypothesis, that the CL group would place academic success lower on the list of priorities as compared to the PCL group was not supported. Though these results do not reflect statistically significant differences, they do reflect on the education of students with ASD. Despite the PCL group reporting a higher level of intelligence in response to the student description, both the PCL and CL groups placed academic success as the least important feature of the student's education. Despite education being a human right, academic success was consistently regarded as less important than life skills for this individual with ASD.

Finally, our hypothesis that the CL group would recommend the student maintain closer proximity to their support worker and further proximity from their peers, and the opposite results from that of the PCL group, were not supported by the data. This may reflect a varied perception of the appropriate level of support for an individual with ASD. Both PCL and CL

groups maintained similar recommendations within the class, within the school, and outside of the school. This could be due to an overall societal lack of understanding or insufficient descriptive information to accurately make these decisions.

Diagnosis and stigma are unfortunately tied together within the field of ASD. As previously noted, diagnostic labels, though used to support the success of an individual, can promote stigma and a negative perception of diagnosis (Corrigan, 2007). These results were obtained from an educated population of participants, primarily in psychology programs that would likely promote education of autism spectrum disorder. Despite this, results maintained observable differentiated perceptions of an individual on the autism spectrum based on differences in descriptive vocabulary.

Limitations and Future Applications

Some limitations of this study need to be mentioned. First, this study employed self-developed descriptions and questions; thus, there are potential concerns regarding their validity. Moreover, vocabulary differences between groups display aspects of content dichotomy, such as the presence of the word “aggression” in the CL group that is not present in the PCL group. This could alter response options on several questions, including how the participant would feel when working with this individual on the spectrum. Second, although we had a large sample, the participants in this study were from a participant pool of university students who were primarily female, this raises concerns regarding the generalizability of these results to support workers that work with students with ASD. These support workers assist the academic, physical, emotional, and social needs of students with various designations and ages, within primary and secondary educational settings and have training to work with these students. This experience and relevant education could result in these professionals being less susceptible to differences in descriptive language than the sample from this study. Finally, the data was collected via self-report and has the limitations associated with such data.

This study would be most beneficially applied to professional and educational settings that are concerned with the support and education of students on the autism spectrum. Within these settings, the results could instigate both individual and systemic reflection and change.

Conclusion

This study sought to examine the effects of language and its influence on the perception of individuals with ASD. Public perception, in conjunction with clinical language, limits the

expectations placed on individuals with ASD by neurotypical individuals. These results and similar research may be used as a tool for the successful education of students with ASD. Stigma can occur in the presence of diagnoses; however, it is the job of professionals and educators to be aware of the effects of their own attitudes and expectations on an individual with ASD. Although these results provide some insight into both the misconceptions and effects of language used to describe autism spectrum disorder, further research is needed to acquire a more comprehensive understanding of the relationships between language, external expectations, and the success of an individual on the autism spectrum.

Tables

Table 1

Expected Emotions Reported by Participants in Working with a Student with ASD

	Clinical		Person-centered	
Emotion	*n*	%	*n*	%
Nervous	6	5.5	1	0.9
Scared	53	48.2	35	40.0
Intrigued	26	23.6	38	29.1
Excited	16	15.5	30	20.9
Nothing	4	3.6	4	3.6
Other	5	4.5	2	3.2

Table 2

Means and Standard Deviations for the Five Priority Areas by Clinical and Person-Centered Language Groups

	Clinical		Person-Centered	
Priority Area	*M*	*SD*	*M*	*SD*
Physical safety	4.59	0.81	4.45	1.03
Peer interaction	2.18	0.82	2.14	0.95
Academic success	1.36	0.66	1.69	0.94
Life skills	3.28	0.89	3.01	1.03
Communication	3.57	1.06	3.67	1.06

Note. Rankings were rescored so that the highest priority item was given a score of 5 and the lowest priority item was given a score of 1.

Table 3

Results of Analysis of Variance for the Five Priority Areas and Language Group

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
Between groups						
Language group (L)	1.00	0.00	0.00	0.15	.697	.00
Error 1	193.00	1.37	0.01			
Within groups						
Priority area (P)	3.66	1092.36	298.56	252.11	.001	.57
L x P	3.66	10.33	2.82	2.39	.055	.01
Error 2	706.13	836.23	1.18			

References

Corrigan, P. (2007). How clinical diagnosis might exacerbate the stigma of mental illness. *Social Work, 52*(1), 31-39. https://doi.org/10.1093/sw/52.1.31

Fombonne, E. (2018). Editorial: The rising prevalence of autism. *Journal of Child Psychology and Psychiatry, 59*, 717-720. https://doi.org10.1111/jcpp.12941

Peterson, C., Slaughter, V., & Brownell, C. (2015). Children with autism spectrum disorder are skilled at reading emotion body language. *Journal of Experimental Child Psychology, 139*, 35-50. https://doi.org/10.1016/j.jecp.2015.04.012

Thurm, A., Farmer, C., Salzman, E., Lord, C., & Bishop, S. (2019). State of the field: Differentiating intellectual disability from autism spectrum disorder. *Frontiers in Psychiatry, 10*, 526. https://doi.org/10.3389/fpsyt.2019.00526

Torres, E., Bricker, M., Isenhower, R., Yanovich, P., Stigler, K., Nurnberger, J., Mextexas, D., & Jose, J. (2013). Autism: The micro-movement perspective. *Frontiers in Integrative Neuroscience,* 7(32), 1-26. https://doi.org10.3389/fnint.2013.00032

Torres, E. & Whyatt, C. (Eds.). (2017). *Autism: The movement-sensing perspective*. CRC Press. https://doi.org/10.1201/9781315372518

Appendix A

Clinical Language Description

The following is a description of a Severely Autistic and Profoundly Non-Verbal student:

Adam is a low-functioning eight-year-old Autistic boy, meaning he is not able to talk. Instead, Adam expresses himself by pointing at laminated pictures on a Communication Board. Adam experiences frequent dysregulation within his body and often self-stimulates by jumping and flapping his arms. If this behaviour becomes disruptive, he can be brought to the sensory room, a quiet room equipped with many calming activities. Adam requires a Support Worker with him throughout the entire day, as he has the potential to leave the school grounds and be aggressive when overwhelmed. He has a lot of energy and requires an active Support Worker.

Appendix B

Person-Centered Language Description

The following is a description of a student with Autism Spectrum Disorder:

Adam is an eight-year-old boy on the Autism Spectrum. Instead of talking, Adam communicates by pointing to pictures to indicate wants, needs and emotions. Adam is sometimes overwhelmed and will engage in soothing activities to calm his body, such as: jumping of flapping his arms. Additionally, he can be brought to the quiet room across the hall, called the sensory room, where you can guide him through his calming routine. Adam requires a Support Worker to provide academic, emotional and physical support to reach his goals and successfully navigate school. He has a lot of personality and requires a Support Worker who understands how to support him successfully.