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Promoting Social Interaction Skills to Influence the Transition to Employment
For Youth with Autism Spectrum Disorders

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Abstract

Autism Spectrum Disorders (ASD) affect one in 68 children in the United States and are characterized by deficits in social interaction. Decreased social interaction skills limit youth with ASDs' ability to obtain and maintain a job. Acquisition of needed social interaction skills must occur during high school years as part of youths' transition program. Therefore, the purpose of this qualitative study was to consider ways to facilitate social interaction to influence the transition to employment. The specific aims of the study were to explore strategies currently used to facilitate social skills, identify social skills currently targeted, and identify other supports needed to enhance youths' social interaction skills. This study contributes data from the perspectives of parents, special education teachers, teachers, vocational transition counselors, and paraprofessionals. Through a phenomenological approach and data analysis, my data yielded four main themes. Adult supports have a common vision for the youth with ASDs' transition, and use attempted strategies of cueing, matching the person and the context, and reflecting. However, there are definitely still deficits of social interaction that affect employment. Therefore, additional needed interventions of increasing supports and training and providing natural contexts for the youth were suggested. Interestingly, specific social interaction skills targeted could not be identified by the adult supports. This research provides the information needed for occupational therapists to create a more effective transition plan, so that youth with ASD can have meaning and success as they move into adulthood and seek employment.

Background

Autism Spectrum Disorders (ASD) affect one in 68 children in the United States and are the fastest growing developmental disability (Centers for Disease Control and Prevention, 2015). ASD is characterized by persistent deficits in social communication, social interaction, and restricted, repetitive patterns of behaviors, interests, or activities. These symptoms limit and impair everyday function (American Psychiatric Association, 2013).

Difficulty in social interaction characterized by ASD consists of deficits in social-emotional reciprocity, including atypical social approach, failure of normal back and forth conversation, reduced sharing of interests and emotions, and poor social imitation (American Psychiatric Association, 2013). Individuals with ASD also may have deficits in nonverbal communicative behaviors used for social interaction such as impairment in social use of eye contact, body language, facial expressions, and gestures (American Psychiatric Association, 2013). These deficits also lead to difficulties in developing and maintaining relationships in all contexts due to an inability to take another person's perspective and understand their emotions, difficulties adjusting behavior to social contexts, and an absence of interest in others (American Psychiatric Association, 2013). Social interaction is a crucial part of life and supports participation in education, play/leisure activities, employment, and living with others. The lack of social interaction skills can have negative affects on relationships and overall quality of life. Early intervention and Individualized Education Programs (IEPs), in a school setting, include many strategies and supports for youth with ASD. However, as youth prepare for transition out of school and enter into multiple contexts of community living and employment, intervention strategies

are needed that allow for opportunity to promote practice in these diverse contexts (Duncan & Klinger, 2010).

An important role for all youth as they enter adulthood is that of employee. Due to the deficits in social interaction skills, youth with ASD have a harder time getting and maintaining employment. According to a study by Lee and Carter (2012), eight years after graduating only 63.2 percent of people with ASD had worked at any point. Additionally, 37.2 percent were currently unemployed at the time of the survey (Lee & Carter, 2012). Workers with ASD who are employed are given fewer hours and decreased pay and benefits. On average adults with ASD who do have jobs only work for 24.1 hours a week, and they only make nine dollars and twenty cents an hour (Lee & Carter, 2012). Furthermore, only 52.8 percent of these people were given any type of benefits (Lee & Carter, 2012). Eaves and Ho (2008) reported that many jobs of youth with ASD include delivering papers, providing Meals on Wheels, or sorting recycling with another person. In their study, only two people worked independently, and only one earned enough to support himself. Browning, Osborne, & Reed (2009) argued that unfair employment practices and decreased opportunities lead to mental health problems, such as anxiety and depression, and lower quality of life.

Once a person with ASD obtains a job they are challenged to keep that job. Chadsey and Beyer (2001) claimed that issues in social interaction abilities are an important factor leading to job loss for people with disabilities. Lack of cooperation, social awareness, and poor inter-personal skills are main factors in job loss (Chadsey & Beyer, 2001). Some specific social challenges include getting along with people at work by not following directions, not getting upset, not taking turns, and not having a sense of

humor (Sperry & Mesibov, 2005). The lack of social interaction skills makes working with others challenging, resulting in difficulty keeping a job.

According to Chadsey and Beyer (2001), there are two types of social interactions in work settings: work-related and non-work related. Work-related interactions are important for getting job tasks accomplished, such as problem solving and collaborating around a task. Non-work related interactions are important for establishing relationships, often discovering common interests, and sharing personal information (Chadsey & Beyer, 2001). Furthermore, interactions among co-workers lead to three types of relationships: work acquaintances, work friends, and social friends. Individuals with ASD tend to have more work acquaintances, engaging in task-oriented relationships at the workplace, and work friends, working closely with coworkers and sharing some personal information while at work. However, they do not have social friends, resulting in getting together with coworkers outside of work (Chadsey & Beyer, 2001). Chadsey and Beyer further found that co-workers of persons with disabilities also classify their co-workers with disabilities as work acquaintances or work friends but not social friends. The limited social relationships among workers can create a problem as it has been shown that when friends support employees they have greater work productivity and outcomes (Chadsey & Beyer, 2001).

While social interaction skills are challenging for individuals with ASD, they definitely have strengths to support their employability. Many individuals with ASD have high abilities in math and computer skills, and have memory skills that are beneficial. Also honesty, reliability, and persistence are desirable factors they possess (Capo, 2000). Furthermore, the limited need for social interaction can be positive as they are less likely to

engage in unproductive conversations, taking away from job performance. Individuals with ASD are clearly capable of maintaining competitive employment (Capo, 2000).

Occupational therapists have a very important role in helping youth at the age of transition consider jobs that are compatible with their strengths and interests (Capo, 2000). Occupational therapists can also address needs around social interaction skills that limit a person's employability. However, there needs to be more research to determine intervention to enhance social interaction skills necessary for employment. Having greater understanding of individuals who provide natural supports to youth with ASD, regarding social interaction challenges and opportunities for promoting social interaction, could guide intervention to support their transition to adult living, especially employment.

Research Goals

Consequently, my overall research goal was to contribute to the understanding of social interaction for youth with ASD from different perspectives and consider ways to facilitate social interaction to influence future employability. Specifically, I aimed to understand what strategies adult supports of youth with ASD use to facilitate social interaction skills. I wanted to identify social interaction skills currently targeted by the adult supports to help prepare the youth for transition and obtain a job. Also, my goal was to identify what additional supports are needed by the adult supports in order to help the youth have more successful transitions.

Methods

My research goals led me to use a qualitative methodology. Specifically, I used a phenomenological approach (Creswell, 2007) to better understand the perceived need for social interaction to support employment, and how the acquisition of social interaction

skills for employment is currently facilitated for youth with ASD. After obtaining approval from the Institutional Review Board, IRB, at the University of New Hampshire, participants were recruited. My mentor, Dr. Lou Ann Griswold, her colleagues, and I facilitated the recruitment of the participants, adult supports of youth with ASD (including parents, special education teachers, paraprofessionals, teachers, and vocational transition counselors), by using professional and personal contacts. I sent out emails and letters to adult supports in the northeast region informing them about the research project and inviting them to participate. Sixteen adult supports volunteered to participate in my study. They signed consent forms to show their agreement to participate and have their data be recorded.

Data was gathered by holding multiple focus groups and interviews of the participants. Specifically, two teacher focus groups, one parent focus group, one parent interview, two special educator interviews, two paraprofessional interviews, and two vocational transition counselor interviews were held. I utilized a semi-structured interview guide to facilitate discussion. The interview questions allowed me to gather information about the social interaction challenges they see for youth with ASD, how they support the acquisition of social interaction skills to support employment, and the need for additional strategies that might help them in their work with youth with ASD to prepare the youth for transition to employment. Some questions varied based on the type of adult support. For example, questions asked to the parents varied from questions asked to vocational transition counselors, as they have different roles, support the youth with ASD in different ways, and see the youth with ASD in different settings. Specific examples of common questions include “What are the challenges that youth with ASD have in obtaining and

maintain a job”?, “What strategies have been effective to help the youth with ASD interact with peers and adults?”, and “In an ideal world, what would you recommend to support the students with ASD to help them transition into adulthood successfully?”. During the focus groups and interviews, I audiotaped the discussion using two recorders to ensure that I captured the discussion. I then transcribed the discussions verbatim. Additionally, after each focus group and interview I documented my reflections about the discussion to inform the subsequent focus group meetings or interviews.

I then analyzed the data using strategies described by Creswell (2007): identifying patterns and themes in the data to address each of my specific research questions. I used a qualitative software program, HyperRESEARCH, to help me organize the data as I coded it. I looked at my original research questions in order to focus my coding and stay aligned with my research goals. I first coded my data by group of participant. For example, I found themes within parent participants before comparing their themes to the themes of the other groups of supports. I initially found eight to fifteen themes per group. I then compared and contrasted the themes between the five participant groups. After continuously analyzing my data, and finding similarities and differences between my five groups, I was able to consolidate my themes into four main overarching themes, with five sub themes. These themes were supported by the data of all of my participant groups. Dr. Lou Ann Griswold assisted me in using HyperRESEARCH and crosschecking the analysis.

Participants

My participants were recruited in the northeast region, primarily the seacoast region of New Hampshire. I had a total of 16 participants, who volunteered to participate and signed the written consent form. My participants specifically included four parents, two

special education teachers, two paraprofessionals, six teachers, and two vocational transition counselors. They were all knowledgeable about this subject and were involved with and supported youth with ASD.

Results

My data presented four main themes, supported by all of the groups of participants. These four themes are a common vision within the adult supports for the youth with ASD, deficits of social interaction, attempted strategies, which include three subthemes of matching the person and context, cueing, and reflecting, and needed intervention, which includes increasing supports and training and creating natural contexts.

Common Vision

All of the adult supports had the same overall vision for the youths' transition out of high school. They all wanted the youth to have successful transitions. Therefore, they supported and focused on the youths' activities of daily living, life skills, transportation, education, and job shadows. Some of the activities of daily living included doing household chores or organizing their backpack. Life skills would include activities such as grocery shopping and money management. Transportation included learning to use public transportation. Education was a more obvious focus as the students are currently in high school. However, these supports recognized the importance of obtaining a job after high school, and therefore, utilized job shadows and internships while the youth with ASD were at the high school level. These adult supports had a holistic view for the youth with ASD in their transition. Teachers even felt that "life skills are more important than any of the classroom content we can teach them" (Teacher, personal communication, 2014). Special education teachers recognized the importance to "not only have a career available to them

but also to have those life skills” (Special ed. teacher, personal communication, 2014). Therefore, the high schools where my participants worked, typically had life skills rooms, and supported the youth with ASD in learning the skills such as money management, navigating a grocery store, and cooking. Although social skills were not specifically mentioned, they were recognized by the adult supports to be embedded in each of these areas within their common vision. These supports valued and had a vision of a holistic transition for the youth with ASD.

Deficits of Social Interaction

My data supported other research, as I found that deficits of social interaction do affect employment. My participants, especially the vocational transition coordinators, stressed the effects that social interaction skills have on obtaining and maintaining employment. One participant truly recognized that “the whole social interaction piece is challenging for them” (Voc. transition counselor, personal communication, 2015). The youth with ASD want jobs, including jobs that are social. It is much more beneficial if they obtain a job while in high school that they can maintain when they graduate, as obtaining a job after high school is much more difficult. My participants verified that youth with ASD have difficulties with interviews because of their social skills. They are unsure of how to respond to employers, and when or how to disclose their diagnosis, even though they are not required to. If youth with ASD have a job, their social skills commonly interfere and result in them being unhappy in the workplace or losing their job. The youth with ASD typically are not able to communicate well with their coworkers or employers. For example, some youth with ASD do not understand when their coworkers are joking. Due to these circumstances vocational transition counselors have found “that’s typically why

they will come back to use because things have happened” (Voc. transition counselor, personal communication, 2015). Therefore, the adult supports attempt to use strategies in order to address the youth’s social skills, so that the youth’s employment is not limited. The adult supports recognize that social skills are crucial in order for youth with ASD to obtain and maintain employment.

Attempted Strategies

The adult supports all used strategies in order to target and improve the social interaction skills and transition of the youth with ASD. However, since there are still deficits in social interaction seen, perhaps these strategies are not the most effective. The adult supports used the strategies in different contexts and different ways, however, three main attempted strategies emerged.

Matching person and context. Youth with ASD are very individualized and tend to have very specific interests and strengths. Therefore, the adult supports found it imperative to truly understand the individual, including understanding their strengths, interests, and triggers. Even parents “have to see where your kid fits because they’re all so different” (Parent, personal communication, 2015). The adult supports try to understand what the student is capable of and why they may act the way they do. They also try to use patience and give the youth with ASD comfort, so they feel comfortable and can practice their social interaction skills.

Understanding the youths’ strengths and interests is crucial when finding a job placement. The adult supports would place the student in a job shadow where they think the youth with ASD will be most successful. They utilize evaluation surveys to determine where the student may fit best based on their strengths. Also, matching the student with a

supportive context plays a large role. It's important to find a context that will fit their needs. Also, an environment with understanding coworkers and employers will create a more successful transition outcome. Vocational transition counselors see that "for employment it takes that one placement that people are accepting" (Voc. transition counselor, personal communication, 2015). Having acceptance is a crucial piece to giving the youth with ASD a feeling of support and social inclusion.

Cueing. Adult supports commonly use social cues in a variety of contexts in order to help the youth with ASD with social interaction. Cues can be verbal or non-verbal prompts to help the youth with ASD navigate social situations. For example, a paraprofessional uses cues with her student and "brings his attention to the fact that other people are being social with him" (Paraprofessional, personal communication, 2015). These adult supports use cueing to allow the youth to recognize someone is engaging in a social situation with them and how to respond. Teachers also give cues on when it is appropriate for the student to speak or not to speak. The youth with ASD can then learn what times are appropriate to interject and which times aren't. This strategy is also seen in employment, with the use of job coaches. Job coaches work one on one with the individual with ASD while they are in an employment setting. The job coach gives cues so that the student is aware of social situations and when it's appropriate to speak in the work environment.

Adult supports also mentioned that while using cues, it's important to give positive feedback and cues to the youth with ASD. The youth need to be encouraged and supported in a positive way, so they feel accomplished when they contribute to the social situation. Furthermore, the most successful cueing, is when it appears to others as if the adult support

giving the cues is not even there. This can be described as “aid and fade”, or giving support and then fading into the background and allowing the child to attempt to navigate the social situation. This applies to the work environment as well as “good job coaches, people don’t even know they are there” (Voc. transition counselor, personal communication, 2015). The adult support should discretely give cues, so they are not overbearing as the youth with ASD interacts socially.

Reflecting. The adult supports typically have the youth with ASD reflect about social situations that they have been in. The youth with ASD reflect upon what occurred during the activity. The youth can then recognize what they think went well, what didn’t go well, what challenges they faced, how they could improve the next time, and what they wish for in the future regarding social interaction. A paraprofessional uses reflections as a way of “bringing that recognition of this is what’s socially acceptable, this is what’s not” (Paraprofessional, personal communication 2015). Reflecting can help the youth with ASD recognize what actions or behaviors are socially acceptable and which ones aren’t, as well as what is right versus wrong. The reflection process can occur in multiple ways such as journaling or just talking through social situations and discussing how to address them in the future. This strategy is carried over into the work place environment as well. For example, one vocational transition coordinator had the youth with ASD he was working with “recognize whether it was [professional] or not” (Voc. transition counselor, personal communication, 2015). In this scenario they reflected upon workplace interactions and applied the word professional. The youth with ASD was able to reflect and decide if his actions, words, and behaviors would have been viewed by his employer and coworkers as professional or not.

Needed Intervention

The adult supports were able to identify additional supports that would allow them to better facilitate social interaction skills and the transition to employment for the youth with ASD. While they currently use attempted strategies, there still seems to be deficits as the youth with ASD are still have a difficult time obtaining and maintain jobs. Therefore, more actions need to be taken and there is a need for further intervention. The two main needs identified by the adult supports were increasing supports and training and providing natural contexts for the youth with ASD.

Increased supports and training. Increasing supports and training was a theme that includes increasing time, planning, paraprofessional training, and employer education. Increasing the amount of time and planning behind interventions for youth with ASD will be more beneficial. Interventions or programs for these youth get thrown together without the time, effort, or follow through that they require. They end up falling apart and not being nearly as beneficial as they were intended to be or had the potential to be. Furthermore, having a large base for a support staff would be beneficial. A participant recognized that “with more people I think you can take an advantage of an opportunity” (Special ed. teacher, personal communication, 2014). A large support staff would be able to provide more time, planning, and individualized time truly getting to understand the youth with ASD that they are supporting.

Paraprofessionals are typically one on one with youth with ASD, and spend the most time with these students. They are with them throughout the school day, everyday, and are the most “hands on” with these youth. However, paraprofessionals are not involved in meetings regarding the youths’ Individualized Education Plan (IEP). They

also typically do not receive any training regarding how to understand and provide interventions for youth with ASD. My adult support participants recognized that this is a problem. One mother stressed her concern that there “needs to be support staff that’s trained specifically” (Parent, personal communication, 2015). A paraprofessional even admitted about other paraprofessionals that “some people just don’t have the right skills to support the kids” (Paraprofessional, personal communication, 2015). The adult supports, especially paraprofessionals, need to be trained in order to support these youth with ASD to the best of their ability and have more successful outcomes.

Increasing support also includes increasing the support and education of employers. Employers need to be better informed and educated on the diagnosis of ASD. They should also be more willing to hire students with disabilities in general. Employers need to understand the benefits of hiring youth with ASD. One vocational transition counselor recognized that there needs to be “more willingness for employers to carve out specific positions” (Voc. transition counselor, personal communication, 2015). Perhaps if the employers realize the true value of these employees they will be more willing to carve out jobs for the youth with ASD, and accept them in their workplace environment despite their differences in social interaction skills.

Natural contexts. The adult supports stressed the importance of natural contexts for the youth with ASD to practice their social interaction skills. The youth with ASD need natural settings with their peers where they can perform a common activity and engage in natural social scenarios. A parent stated “that is where they’ll generalize everything they’ve learned to a more natural setting” (Parent, personal communication, 2015). The students need to be able to practice the skills they’ve been taught with their

peers in a trusted and safe environment. A teacher recognized that “the kids who are successful are never successful in a vacuum” (Teacher, personal communication, 2014). The youth with ASD need to interact with their peers, instead of only with the adult supports. They also need feedback from their peers instead of always from adults. When their peers hold them accountable, and the youth with ASD are treated as if they’re in the real world, they are able to practice and improve their social interaction skills. Having these youth with ASD involved in groups will help create social opportunities for them during down times, and help create friendships. Youth with ASD are most happy and successful with social interactions when they have a group or a niche to be apart of. Some examples of successful niches that facilitate social interactions are drama club, band, Best Buddies, unified sports, or other community activity programs. It is much easier for the youth to create conversation with their peers about common interests or activities. Creating these natural contexts will help increase the youth with ASD’s quality of life and social interaction.

Social Skills Targeted

One of my main research goals was to identify specific social skills currently targeted by adult supports. However, my participants could not seem to identify specific social interaction skills. When I asked about specific skills, their answers were vague. Therefore, it seems that there needs to be a greater awareness of a need for social interaction. These adult supports need to be better educated and trained on what specific skills they should be targeting. A greater specificity of social skills truly needs to be identified.

Discussion

Although adult supports of youth with ASD have a common vision for the youth and want them to have a successful transition, there are still deficits of social interaction for the youth with ASD in employment. Despite using strategies of matching the person and context, cueing, and reflecting, the youth are having difficulties obtaining and maintaining employment. This deficit needs to be addressed, as ASD is the fastest growing developmental disability. The adult supports suggest valuable additional needed interventions of increasing supports and training and providing natural contexts for the youth with ASD. It is also crucial for these adult supports to be able to understand, identify, and target specific social interaction skills, as they were not able to when interviewed for this study. These are areas that need to be addressed, especially by occupational therapists who can help create a more effective transition plan.

Implications for Occupational Therapists

Occupational therapists have a great opportunity to help youth with ASD transition to employment. Occupational therapists have the standardized assessments that can be used to evaluate social interaction skills. With these assessments, specific social skills will be identified and their order of importance can be considered. Then, these specific skills could be addressed and progress could be evaluated. Furthermore, occupational therapists could provide training for adult supports, including paraprofessionals and employers. Occupational therapists can advocate and educate these professions on their need for increased knowledge and training. In addition, occupational therapists could help these adult supports increase their client-centered practice, understand the individual, and match the person to their context. Lastly, occupational therapists can create natural opportunities

for the youth to practice their social interaction skills. Obviously, there are deficits in social interaction for youth with ASD that effect employment and there are several needed interventions. Occupational therapists have the tools and skills to help fill this gap and address the needs to create a more successful transition to employment.

Study Limitations

My study presented several limitations. The participants were self-selected and chose to participate in my study. This means that the individuals who chose to participate had done so for a reason. They may have had more knowledge about the topic, were more passionate about it, or felt more comfortable with youth with ASD than others. Therefore, these participants may not represent the general opinions on this topic. Furthermore, I utilized a limited geographic area. Ideas and opinions may vary in other areas. Expanding the geographic area and increasing the randomization of participants would be more beneficial for future studies on this topic.

Conclusion

Previous literature states that youth with ASD have deficits in social interaction skills that affect their ability to obtain and maintain employment. This research study supported that claim. From interviewing adult supports of youth with ASD, it was found that they have a common vision for the youth for their transition to employment; however, these deficits still exist. The adult supports use several strategies in an attempt to improve the social interaction skills, including matching the person to their context, cueing, and reflecting. However, adult supports do recognize that there are additional needed interventions in order to make this transition more successful. These needed interventions include increasing supports and training, and creating natural contexts. Furthermore,

specific social interaction skills could not be identified by these adult supports, which needs to be addressed for more successful interventions and outcomes. Occupational therapists should step in as they have the tools and skills necessary to improve social interaction skills and the transition to employment for these youth with ASD. ASD is extremely prevalent and is the fastest growing disability, so this is a problem that needs to be addressed.

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