The Key Elements of an Effective ASD Transition Program

Jennifer Fong

Pacific University

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The Key Elements of an Effective ASD Transition Program

Abstract

BACKGROUND: Young adults with Autism Spectrum Disorder (ASD) experience adversity upon exiting the school system and entering the workforce. Studies have shown individuals with ASD are less likely to obtain full-time jobs and earn competitive wages. Various transition programs, such as Peer Connections, have been developed to improve vocational outcomes for this population. OBJECTIVE: This paper reviews the evidence supporting the important elements of effective pre-employment training programs and evaluates the characteristics an individual transition program; the Peer Connections Program. METHODS: A review of the literature was conducted to determine the key elements of effective transition programs and then the Peer Connections Program was assessed to determine the level of integration of these elements, through the use of surveys of participants and staff and structured observations.

RESULTS: Four key elements for effective transition programs were identified in the literature; peer support, work experience in the community to practice skills, client-centered services, and initiation of transition services at a young age. Peer Connections demonstrated three of the four elements.

CONCLUSIONS: This evaluation identified the successful inclusion of four key elements into Peer Connections transition program to assist young adults with ASD in obtaining successful employment.

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Keywords
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1. Literature Review

The prevalence of individuals diagnosed with autism spectrum disorder (ASD) has grown substantially in the past 50 years. Christensen et al. (2016) found approximately 1 in 68 children were identified with ASD in 2012 compared to the 1 in 1000 estimate in 1960. This makes ASD one of the fastest growing developmental disabilities in the United States. The National Institute of Neurological Disorders (2015) describes ASD as a range of developmental disabilities including impaired communication and behaviors or interests that interfere with daily function. These characteristics also have an impact on the ability of a person with ASD to obtain and maintain a job.

Studies indicate young adults with ASD are less likely to become employed compared to individuals with other types of disabilities and those who are employed earn significantly lower wages and are less likely to work full-time (Christensen et al., 2016; Roux et al., 2013; Taylor & Seltzer, 2011). Difficulty understanding social cues, hyper-reactivity or hypo-reactivity to sensory input, and resistance to change are some of the characteristics that interfere with job acquisition and independent functioning for individuals with ASD (Hume, Boyd, Hamm, & Kucharczyk, 2014). Higgins, Koch, Boughfman, and Vierstra (2008) found individuals with ASD who exhibit high intellectual capabilities but also have communication difficulties face unique challenges in the work place. They state this population’s greatest barriers to job attainment, retention, and advancement derive from deficits in communication and social behaviors rather than the individual’s ability to complete assigned work tasks.

For many young adults, job acquisition is an important milestone towards adulthood and paid employment offers individuals the opportunity to become more independent, pursue
activities of interests, and make a contribution to society. Individuals with ASD who are employed are less likely to experience financial stress and social exclusion (Howlin, 2013). Taylor, Smith, and Mailick (2014) also suggest engagement in work activities correlate with fewer maladaptive behaviors, such as inattention or self-injury, and greater independence in activities of daily living.

Numerous programs focusing on social and work skill interventions have been developed in attempt to address the needs of this growing population (Carter, Moss, Hoffman, Chung, & Sisco, 2011; Laugeson, Ellingsen, Sanderson, Tucci, & Bates, 2014; Weiss & Rohland, 2015). These programs resulted in positive outcomes for higher rates of employment, increased social engagement, and better emotional regulation. The literature identifies four key elements recommended for inclusion in effective employment preparation programs; peer support, work experience in the community to practice skills, client-centered services, and initiation of transition services at a young age (Lee & Carter, 2012; Hendricks, 2010). The purpose of this paper is to investigate the implementation of these elements in a single transition program, the Peer Connections Program in Salt Lake City, Utah.

2. Peer Connections

Peer Connections: Explorations in Life Skills is a program designed and offered by the staff at Easter Seals Goodwill Northern Rocky Mountain. It was developed in 2010 to serve teens and young adults with social communication disorders. The primary goal of the program is to increase the participants’ social abilities for success in higher education and employment through evidence-based practices. The program partners with vocational rehabilitation counselors and non-profit organizations to provide specific dynamic and meaningful work experiences. Outcomes of participation in the Peer Connections Program include:
KEY ELEMENTS OF ASD TRANSITION PROGRAMS

- Decreased social anxiety
- Increased self-confidence and self-awareness
- Increased independence in performing activities of daily living
- More effective communication skills
- Increased problem-solving capabilities
- Increased self-advocacy
- Improved access to services
- Work experience

Participants aged 16-24 are recruited through local school districts, transition and education centers, the Utah Parent Center, charter schools, the Utah Office of Refugee Services, and local conferences. The majority of participants have an average to above average cognition but exhibit symptoms which interfere with initiating conversation, making friends, accepting feedback, and being flexible. All participants and their parents complete a four hour evaluation in the office and a four hour evaluation onsite before participating in the program. The primary purpose of this evaluation is to prioritize the participant’s and family’s goals, identify the participant’s strengths and weaknesses, and identify the participant’s social and environmental relationships. Participants are then observed during an onsite assessment where they are introduced to a site and have the opportunity to interact with current Peer Connection participants. The Peer Connections program utilizes site facilitators to help run the community sites. Each site facilitator is trained to use the coaching model. The coaching model emphasizes strong, positive support at the beginning of the program but provides less support as the participant begins to develop greater self-awareness and independence. The site facilitator works
to empower the participant to accurately reflect upon their work performance and set work-related goals for themselves.

Participants are assigned to a community site to practice work skills based on the results of their evaluation. During the nine week program, participants complete three to four volunteer hours a week at community sites that challenge them to work on job skills and support greater success in the participant’s future career choice. Each participant is assigned a site facilitator and neurotypical peer to provide support, feedback, and coaching throughout each session. The participant’s job performance is discussed at the end of each session with the site facilitator and peer. Participants are then encouraged to establish a goal to improve their work skills for the following week. Participant progress and goals are documented on weekly feedback forms that were developed by staff at Easter Seals Goodwill.

3. Program evaluation

This program evaluation of Peer Connections was conducted as a capstone project by an occupational therapy student of the course of a 16 week internship. The occupational therapy student collected data for the project as an evaluator, peer, and site facilitator. This paper articulates the findings of this program evaluation.

4. Methods

The occupational therapy student developed and conducted surveys to examine the qualities of the program from the perspective of participants and staff within the Peer Connections Program. Participants, site facilitators, and peers were selected for interview and observation through convenience sampling. Seven participants were selected to complete the surveys during their final week with the program. Participants were asked to rate how often they experienced specific qualities of the program such as; practicing work skills, reviewing their
KEY ELEMENTS OF ASD TRANSITION PROGRAMS

performance with site facilitators, and asking for help. They were also asked to rate the perceived helpfulness of the program qualities. Part two of the survey contains open-ended questions relating to the participant’s favorite and least favorite part of the program and suggestions for program improvement. The occupational therapy student conducted these surveys in person and provided clarification if the participant had questions. Six site facilitators and peers with at least nine weeks of experience in the program were selected to complete the staff surveys. Staff surveys contained similar questions regarding their opinion of the program’s qualities.

The occupational therapy student also conducted structured observations of the program. Observations of the program were conducted in 20 minute segments while the participant and their partner worked onsite. The occupational therapy student documented how often participants asked for help, talked with guests, or watched their partner model an activity during this time-frame. The breakdown of these observations is detailed in figure 1.

5.1 Peer Support

Weiss and Rohland (2015) identify the use of similar aged peers for college students with ASD as a key element of success of their communication program and Carter et al. (2011) investigated the use of peer-supported interventions for individuals with disabilities within a school setting. They found teaching the peers how to support and interact with students within the classroom resulted in an overall increase in social interactions for the students with disabilities.

The use of similar-aged peers is a core component of the Peer Connections program. Neurotypical peers are recruited from local high schools and colleges to act as a role model, friend, and to provide support when needed on the job. Each participant is assigned a peer to work with each shift for the nine week program and given a brief educational session about ASD.
and how to support individuals with this diagnosis. The peers are instructed to model good work habits, social skills, and to encourage their partner to practice these skills. At the end of each shift, the peers are asked to provide feedback on how the shift went and what skills need could be improved.

The occupational therapy student documented the frequency of peer and participant interactions while conducting structured observations. Peer partners modeled job skills, such as talking with guests or teaching an activity, an average of eight times during observation sessions. Participants attempted the same job skill after seeing their partner demonstrate the same task approximately 38% of the time. In addition, participants turned to their partner for help approximately three times during the 20 minute observation.

Surveys reviewed the frequency of peer interactions from student and staff perspective, see table 1a. Students and staff agreed peer interactions and modeling of work skills occurred during the 9 week rotation. Surveys also reviewed the effectiveness of these peer interactions, see table 1b. The survey results indicated that the 71% of participants surveyed found it very helpful to have a partner teach them work skills and to see their partner interact with guests before they tried. One participant within the Peer Connections program reported the benefits of having a similar-aged peer to work with each week, “My favorite part of this program was talking with my peer. She was really nice and helped me talk to other people” (personal communication, June 24, 2016). In addition 83% of surveyed staff members also felt it was very helpful for the peers to teach work skills to the participants and 50% reported they felt it was very helpful to model interacting with guests before the participant tried. One staff member stated working with a similar-aged peer made a huge difference (personal communication, June
30, 2016). She felt the participants benefited from having a partner to talk with and have as a support when they needed help.

5.2 Meaningful Work Experience in the Community

Laugeson et al. (2014) found teaching and allowing adolescents with ASD to practice social skills within a natural setting to be an effective intervention for improving skills. Higgins et al. (2008) state transition programs should place an emphasis on including opportunities for young adults to obtain work experience through part-time jobs or community-based work experience programs. Hendricks (2010) found job skill training within a natural work environment is advantageous because it allows individuals to practice skills such as following a schedule or communicating with a supervisor with natural consequences.

Volunteer sites for the Peer Connections Program include; community theaters, museums, community education organizations, and other non-profit organizations that utilize volunteers. These sites were selected because they allow the students to have responsibilities emphasizing customer service rather than specific or routine job tasks. Students are expected to interact with coworkers and guests, problem-solve non-routine events, and complete work tasks.

Observations of the program and participant surveys revealed that participants had regular opportunities to practice social and work skills such experiencing and attempting to solve non-routine problems, talking with guests, and teaching new activities, see table 2a. Survey results indicated that 71% of participants reported practicing problem solving and talking with guests and staff as very helpful, see table 2b. Participants reported the challenges of practicing work skills in a community setting. Two participants reported their site would get boring because they worked during shifts when few guests were around. In contrast, one participant expressed that busy days were difficult because working with many guests at once caused him to
experience anxiety. Students and staff also reported the benefits of practicing works skills in a community setting. One participant stated his favorite part about working with Peer Connections was developing the confidence that he could do and keep a job in a volunteer setting. He enjoyed being able to practice job skills in a low pressure environment. Four staff stated the opportunity to practice interacting with guests and making small talk with coworkers had the largest influence on the participant’s work skills. One stated, “Peer connections provided a real work setting that permitted [participants] to practice skills they have while identifying their weakness” (personal communication, July 7, 2016).

5.3 Client-Centered Services

Lee and Carter (2012) listed client-centered supports and services as a critical quality of ASD transition services. They suggest services which emphasize each individual’s interests and strengths promote more successful transitions into the workplace. In addition, Lee and Carter state transition programs must encourage individuals to take an active role in establishing and attaining desired employment outcomes. Higgins et al. (2008) identified supported employment through individualized training and job coaching as important elements of ASD transition programs. They state job coaches help individuals with ASD navigate unexpected work situations, identify and alter unusual social behaviors, and develop independent work practices.

Site facilitators at Peer Connections are trained to emphasize the participant’s strengths and provide extra support during the first few weeks of the program. Facilitators then slowly reduce the amount of support as the participants develop more confidence and become more proficient at their work duties. Participants are also encouraged to self-reflect on their work performance by completing weekly feedback forms at the end of each shift. These forms were designed to review their favorite part of their shift, how communication went with their partner,
and their anxiety levels. Site facilitators and peer partners also verbally review the shift with each participant to help them choose meaningful, work-related goals for the next week.

The occupational therapy student observed participants applying their weekly goal approximately two times per 20 minute observation. Approximately 57% of surveyed participants felt they established their weekly goal every week, see table 3a. Participants and staff agreed setting weekly goals was a helpful element of the program, see table 3b. One staff member stated the before and after feedback on work performance resulted in the greatest behavior changes (personal communication, June 29, 2016). Another staff member stated, “The discussion at the end of every week allowed participants to review their performance while receiving support from the team members”.

5.4 Age receiving transition services

Cimera, Burgess, and Wiley (2013) found that individuals who received services by the age of 14 were more likely to become employed and earn higher wages than those who began services at the age of 16. In addition, those who received services at a younger age required fewer services thus reducing the cost of services for families. Lee and Carter (2012) also identified early work exposure as an important factor impacting job attainment for young adults. They found that early work experiences and career exploration helped participants increase awareness of their work strengths, discover professional interests, and develop realistic career goals. Rusch, Hughes, Agran, Martin, and Johnson (2009) state individuals with ASD are more likely to have positive employment outcomes if they are active participants in their transition planning in middle school and develop a post-high school employment or education plan prior to graduation.
The Peer Connections program was designed to serve individuals between the ages of 16 and 24. The majority of participants in Peer Connections was 18 or older and had already exited the school system, see Fig. 2. One parent explained the benefit of having her adolescent start the program while he was still enrolled in high school, “Peer Connections increased his confidence and understanding of what life will look like after high school. He is less worried and more excited to take responsibility and have freedom after he graduates. He can picture himself as an employee now“ (personal communication, June 13, 2016). One staff member stated, “I think starting services at a younger age would be helpful for the participants. It is difficult to change habits they have developed for over 20 years” (personal communication, June 24, 2016).

6. Implications for the Peer Connections Program

Peer Connections featured three of the four elements based on the literature and feedback from participants and staff. Participants and staff agreed having a peer, gaining experience in a real work setting, and receiving client-centered feedback were positive aspects of the program. The literature supports one area of improvement for the Peer Connections Program; the age at which services are offered to participants. Evidence from the literature suggests initiating transition services at a younger age is more effective in helping individuals with ASD develop career interests and obtain jobs with higher wages (Cimera, Burgess, & Wiley 2013; Lee & Carter, 2012). Targeting services for a younger demographic could further improve the outcomes of participants in the program.

6. Conclusion

Young adults with ASD are at a high risk for unemployment upon exiting the school system but transition programs can help address this issue. Effective elements of transition programs included; similar-aged peers, work experience in the community, client-centered
services, and the delivery of transition services at a young age (Lee & Carter, 2012; Hendricks, 2010). This evaluation verifies the inclusion of three of the four key elements into this transition program to assist young adults with ASD in successful employment and recommends expansion of services to individuals of younger age to ensure greater evidence based implementation.
Structured Program Observations

- Modeled Job Skill
- Discussed Job Performance
- Attempted job skill after partner
- Independently attempted job skill
- Attempted to solve problem
- Asked partner for help
- Experienced problem
- Applied weekly goal

Fig. 1 Average occurrence per 20 minute observation
Figure 2

Student Demographics of Peer Connections
### Table 1a
**Frequency of Peer Partners**

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Sometimes</th>
<th>Every Week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant</strong>: How often did your partner teach you skills to work?</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Staff</strong>: How often did you teach work skills?</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Participant</strong>: How often did you see your partner interact with guests before you tried?</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Staff</strong>: How often did you model talking with guests before the student tried?</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 1b
**Effectiveness of Peer Partners**

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at All</th>
<th>Somewhat Helpful</th>
<th>Very Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant</strong>: Was it helpful to have your partner teach you skills to work?</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Staff</strong>: Was it helpful to teach your student work skills?</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Participant</strong>: Was it helpful to see your partner interact with guests before you tried?</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Staff</strong>: Was it helpful to model talking with guests before he/she tried?</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 2a
Frequency of Work Experience

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Sometimes</th>
<th>Every Week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant:</strong> How often did you practice problem solving?</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Participant:</strong> How often did you practice talking with guests and staff?</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2b
Effectiveness of Work Experience

<table>
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<th>Somewhat helpful</th>
<th>Very Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant:</strong> Was it helpful to practice problem solving?</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Participant:</strong> Was it helpful to practice talking with guests and staff?</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>
Table 3a
Frequency of Goal Setting

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Every Week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant:</strong></td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>How often did you make your weekly goals?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff:</strong></td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>How often did you help the student make their weekly goals?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3b
Effectiveness of Goal Setting

<table>
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<th>Very Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant:</strong></td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Was it helpful to make your own weekly goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff:</strong></td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Was it helpful for the student to make their weekly goals?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
References


