

RELATIONSHIPS AND DATING: EDUCATING THOSE WITH DEVELOPMENTAL  
DISABILITIES ABOUT INTIMATE RELATIONSHIPS

A Thesis submitted to the faculty at Stanbridge University in partial fulfillment of the  
requirements for the degree of Master of Science in Occupational Therapy

by

Sakiko Arai, Alexys Contemprato, Keely Kline, and Mikayla Winkler

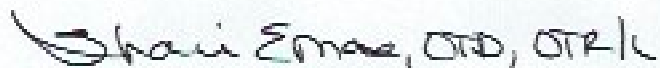
Thesis advisor: Shari Emas, OTD, OTR/L

May 2020



## Certification of Approval

I certify that I have read *Relationships and Dating: Educating on Intimate Relationships for those with Developmental Disabilities* by Sakiko Arai, Alexys Contemprato, Keely Kline, and Mikayla Winkler, and in my opinion, this work meets the criteria for approving a thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Occupational Therapy at Stanbridge University.



---

Dr. Shari Emas, OTD, OTR/L

Instructor of Occupational Therapy

ACCEPTED



---

Dr. Vikas Sharma, OTD, OTR/L

Program Director, Master of Science in Occupational Therapy

Dedication

To my brother Davis, you are the driving force behind my biggest passion.

– Keely Kline

## Acknowledgments

We would first like to express our sincere gratitude to the program staff, students, parents, and Phil Prickett, the director of Life College, for allowing us the opportunity to implement our Relationships and Dating workshops.

To our thesis advisor, Dr. Shari Emas for her continuous support, encouragement, and guidance throughout the course of developing and implementing this thesis project.

To Dinesh Payroda, campus staff, for his flexibility and kindness in coordinating rooms for us to conduct workshops.

To Dr. Alexander Moran and LRC staff for providing us with assistance and support in completing this project.

To our thesis group members, for the constant support, flexibility, open-mindedness, positivity, and amazing teamwork throughout this entire experience.

## Abstract

Studies have revealed that those with developmental disabilities (DD), including autism spectrum disorder (ASD), intellectual disabilities (ID), and attention-deficit/hyperactivity disorder (ADHD) are interested in dating, but have difficulties discriminating between friends and significant others, as well as what hinders and helps a relationship (Roth & Gillis, 2015; Fulford & Cobigo, 2018). Those with ASD are still seeking avenues for dating, such as online dating, but are putting themselves at risk due to difficulty determining safe and unsafe behaviors (Roth & Gillis, 2015). In order to address such risks of individuals with ASD, it is important for educators and healthcare practitioners to provide formal education on what is appropriate and inappropriate when engaging in sexual and romantic relationships (Pecora et al., 2016). Because sexuality, dating, and forming romantic relationships involve participation in social interactions, occupational therapists (OTs) can play an essential role in addressing these concerns with individuals with DD to enhance occupational performance.

This project aimed to address sexuality with young adults with DD to help improve social participation by guiding participants on how to form healthy, intimate relationships. The intervention was implemented over the course of three weeks with a total of three one-hour workshops. At each workshop, participants were given a pre- and post-test on the material presented for the day. Four facilitators delivered a 30-minute presentation on topics regarding how to approach others, appropriate touch, stalking behaviors, consent, and online safety. Participants were then given scenarios to read

aloud and were to determine whether these scenarios were appropriate or inappropriate dating behaviors. A pre- and post-survey was given to all participants to measure differences before and after the intervention.

In this convenience sample pilot study, young adults over the age of 18 with DD participated in workshops. Results of the study did not show a significant increase in participants' knowledge and comfort level on relationships and dating. However, participants and parents provided positive feedback about their perceptions of the workshops and ways to best improve upon it. This intervention program can be a useful base for therapists, educators, and caregivers working with young adults with DD to improve social skills necessary to establish intimate relationships, and increase overall quality of life for participants by better understanding and interacting with peers.

## Table of Contents

List of Tables.....	x
Introduction.....	1
Statement of the Problem.....	1
Purpose of the Research and Anticipated Outcomes.....	3
Literature Review.....	4
Social Impairment.....	4
Lack of Education.....	6
Unsafe Dating Behaviors.....	7
Current Interventions.....	9
Theoretical Framework.....	14
Methodology.....	16
Participants and Setting.....	16
Intervention Procedure.....	19
Ethical and Legal Considerations .....	24
Results.....	26
Discussion.....	28
Future Implications for Occupational Therapy.....	30
Limitations.....	32
Conclusion.....	35
References.....	37
Appendix A: Thesis Site Proposal.....	42
Appendix B: Parent/Guardian Consent Form.....	45



Appendix C: Participant Assent Form.....	47
Appendix D: Pre- and Post-Workshop Survey.....	49
Appendix E: Workshop 1 Pre- and Post-Test Questions.....	50
Appendix F: Workshop 2 Pre- and Post-Test Questions.....	52
Appendix G: Workshop 3 Pre- and Post-Test Questions.....	54

List of Tables

Table 1: Pre-Workshop Survey Results.....	26
Table 2: Post-Workshop Survey Results.....	27
Table 3: Percent Change of Pre- and Post-Workshop Survey Results.....	27
Table 4: Knowledge-Based Pretest and Posttest Results.....	28

## Relationships and Dating: Educating those with Developmental Disabilities about Intimate Relationships

Sexuality is a multidimensional concept that refers to the way an individual experiences and expresses themselves sexually. It can define a person's identity, how a person relates to others, and how people establish relationships (MacRae, 2013).

Sexuality can also involve an individual's sexual feelings, the individual's sexual expression, and his or her ability to be intimate with another person. The Occupational Therapy Practice Framework (OTPF): Domain and Process (American Occupational Therapy Association [AOTA], 2014) categorizes sexual activity as an activity of daily living (ADL). Sexuality is typically thought of as the formation of intimacy in a dyadic relationship. The formation of a romantic relationship requires social participation between the individuals involved, a process which is classified as an occupation by the OTPF (AOTA, 2014). Given the field's client-centered approach to service, occupational therapists (OT) have the ability to address sexuality through interventions that are designed to improve a client's performance in meaningful occupations.

### **Statement of the Problem**

Individuals with developmental disabilities (DD) face increased challenges when engaging in dating behaviors and may be unaware of unsafe situations related to dating. Strunz et al. (2017) found that the lack of contact with peers and limited experiences with building friendships inhibit the abilities of individuals with autism spectrum disorder (ASD) to learn essential relationship skills. Furthermore, the perception that contact with others is exhausting, fear of not being able to fulfill a romantic partner's expectations, and lack of knowledge on how to behave in a romantic relationship all impede the desire

of individuals with ASD to establish a romantic relationship (Strunz et al., 2017). Although it has been documented that individuals with DD wish to be in a relationship, one study found that fewer participants with ASD were in a relationship (50%) compared to their typically developing peers (70%) (Dewinter, DeGraaf, & Begeer, 2017). Close attention to the experiences and needs of individuals with ASD is advised when providing appropriate opportunities for those who seek to engage in romantic relationships (Dewinter et al., 2017). The field of occupational therapy (OT) emphasizes client-centered practice in which practitioners can provide appropriate modifications and adaptations to educate individuals with DD on such topics.

Although the scope of OT practice allows practitioners to address sexuality, there are few studies that document this role (Krantz, Tolan, Pontarelli, & Cahill, 2016). The few studies that are available mainly focus on rehabilitation with adult populations, such as those with spinal cord injury (Lichtenberg, 2014). Currently, there is a lack of research available to demonstrate what the role OT can play in addressing sexuality with young adults with DD. For instance, a systematic review by Beddows and Brooks (2015) found that the majority of studies have had small sample sizes, involving only observation of information obtained from caregivers rather than individuals with ASD.

Individuals with DD may also struggle with building romantic relationships because of the lack of educational programs that demonstrate socially appropriate interactions (Krantz et al., 2016). Currently, there is little research on the sexual health curriculum that is provided in schools for individuals with DD (Hénault, 2005). Compared with neurotypical peers, 50% of adolescents with ASD have not received education on sexuality (Beddows & Brooks, 2015). Education on appropriate behaviors

act as a protective and preventive measure for individuals with ASD who are more susceptible to sexual abuse when interacting with others (Beddows & Brooks, 2015). Brown-Lavoie, Vecili, and Weiss (2014) found that individuals with ASD obtain less of their sexual knowledge from social sources and more from non-social sources, have less perceived and actual sexual knowledge, and experience more sexual victimization than individuals without ASD. This increased risk of victimization is partially determined by their level of actual sexual knowledge (Brown-Lavoie et al., 2014). Despite this deficit in education, educators that work with individuals with DD recognize the need for a formal program to address sexuality, especially in regard to safety and appropriate public behavior (Krantz et al., 2016). Therefore, OTs may have the opportunity to play a valuable role in providing educational programs to young adults with DD in order to help them engage in safe dating practices.

### **Purpose of the Research and Anticipated Outcomes**

The purpose of this study was to provide educational workshops on socially accepted romantic interactions for young adults who were enrolled in an adult transitional program. Individuals with DD have just as much of a right to engage in romantic relationships compared to typically developing peers; however, to ensure safety, sexual education may be a proactive measure to teach individuals with DD how to maintain safe relationships. We predicted that after three one-hour-long sessions utilizing role-playing romantic relationship interactions and an informational lecture section using PowerPoint, those with developmental disabilities over the age of 18 would have increased knowledge and comfort with appropriate romantic interactions.

### **Literature Review**

The Center for Disease Control and Prevention (2018) defines developmental disabilities as impairments in physical, learning, language, or behavior areas. Out of the many challenges that affect daily functioning, social participation is one that affects the entire spectrum of those with developmental disabilities, including disabilities such as ASD, intellectual disabilities (ID), and attention-deficit/hyperactivity disorder (ADHD). As stated in the OTPF (AOTA, 2014), social participation is an occupation and it is the interweaving of occupations that support desired engagement in community and family activities as well as those involving peers and friends. This being said, social participation is a crucial area in the domain for OTs to address with individuals with DD.

### **Social Impairment**

Studies have shown the value of interpersonal relationships and demonstrated a strong connection between physical health, mental health, and the quality of an individual's social network (Ward, Atkinson, Smith, & Windsor, 2013). Impairments in client factors—such as mental functions and sensory functions—as well as impairments in performance skills and performance patterns, hinder one's ability to successfully engage in social interactions. For example, individuals with ASD are characterized by marked social impairment due to difficulty in peer interactions, lack of recognition of social cues, an egocentric personality, and a frequent display of socially and emotionally inappropriate behavior (Stokes, Newton, & Kaur, 2007). Not only does this affect the ability to successfully form relationships with family members and peers, but it also plays a large role in one's ability to form romantic relationships as well.

Although individuals with ASD have normative adolescent development when compared to neurotypical peers, Pecora, Mesibov, and Stokes (2016) found that emotional and social insight did not follow the development of sexual interest. This lack of insight often leads to significant issues with initiation of successful relationships and appropriate expression of sexuality (Corona, Fox, Christodulu, & Worlock, 2016). Research has also found that individuals with ASD are motivated to date, but the social impairments associated with ASD are impairing their ability to form and maintain romantic relationships (Roth & Gillis, 2015). When Stokes et al. (2007) compared the social and romantic functioning of adolescents and adults with ASD to those without ASD, they found that social functioning is a significant influence on the level of romantic functioning (Stokes et al., 2007). Because this population has not developed an appropriate level of social functioning, individuals with ASD lack the foundation required in acquiring the skills or experience necessary for more complex intimate and romantic relationships (Stokes et al., 2007).

For example, interpersonal distance is a factor in social communication which can either inhibit or promote a social interaction (Asada et al., 2016). There is an unspoken, agreed-upon acceptable distance for people to maintain when conversing with one another (Asada et al., 2016). Researchers studied what distance both those with ASD and those who are typically developing felt uncomfortable (Asada et al., 2016). It was found that those in the study with ASD had a shorter interpersonal distance at which they were comfortable than those who are typically developing (Asada et al., 2016). This example, as well as other social impairments, suggests that individuals with DD (i.e., ASD) may

need additional support to enhance their occupational performance and be successful in forming romantic relationships.

### **Lack of Education**

While sexual education courses are typically embedded within the high school curriculum for general education populations, people with DD have identified that there is a lack of access to sexual education provided for them (Wilkinson, Theodore, & Raczka, 2015). A systematic qualitative review of 18 articles explored the views of those with a developmental disability on friendship and dating (Fulford & Cobigo, 2018). The articles reviewed showed that participants wanted to know how to distinguish between friends and significant others as well as what hinders and helps relationships (Fulford & Cobigo, 2018). This study shows that there are people struggling to make the distinction between friendships and romantic relationships and are searching for answers on how to establish relationships. Another study found that individuals with ID had difficulties defining what a lasting relationship and marriage entails; however, they were interested in classes that focus on practical ways to develop relationships (Swango-Wilson, 2011).

Even educators recognize the need for a formal program to teach students with DD about sexuality, especially in regard to safety and appropriate public behavior (Krantz & Tolan, 2016). Interventions to educate young adolescents and adults with ASD about issues related to sexuality may help reduce inappropriate sexual behaviors and prevent those behaviors from becoming a habit (Beddows & Brooks, 2015). Other important topics to discuss with these individuals regarding romantic relationships include understanding puberty (Beddows & Brooks, 2015), how to initiate interactions (Stokes et al., 2007; Roth & Gillis, 2015; Corona et al., 2016), appropriate space and



touch (Asada et al., 2016), and online safety (Roth & Gillis, 2015). This lack of formal education on the subject puts this population at risk for engaging in unsafe dating behaviors which could lead to devastating consequences.

### **Unsafe Dating Behaviors**

It has been well documented that people with DD are victims of interpersonal violence at higher rates than peers without disabilities (Ward et al., 2013). Like typically developing individuals, romantic relationships are just as important to those with DD; however, these relationships are likely to result in high incidences of interpersonal violence (Ward et al., 2013). Individuals with developmental disabilities may be more susceptible to victimization due to a lack of sexual knowledge, a lack of social insight, and poor judgement (Pecora et al., 2016). For example, individuals with ASD may have difficulty determining what are “safe” and “unsafe” behaviors, social contexts, and sexual experiences; understanding others’ negative intentions; and asserting their own will and wishes with respect to sexual interactions (Brown-Lavoie et al., 2014). To address this issue, Ward et al. (2013) evaluated the Friendships and Dating Program (FDP) in its success in teaching the social skills needed to develop healthy, meaningful relationships as well as its success in preventing violence in dating and partnered relationships (Ward et al., 2013). Results from this study show that safety training alone is not enough to prevent interpersonal violence, and that adults with DD also need opportunities to acquire and practice skills necessary to engage in meaningful relationships (Ward et al. 2013).

Not only do individuals with DD need some form of sexual education to prevent victimization, this population is at risk for coming into contact with the criminal justice system as well (Pecora et al., 2016). Stoke et al. (2007) found that while the typically

developing adolescents and adults engaged in appropriate behaviors directed towards a specific person of social or romantic interest, those with ASD did not. That being said, those with ASD are also at an increased risk of victimizing others (Roth & Gillis, 2015). A study found that individuals with ASD were more likely to touch a person of social or romantic interest inappropriately, believe that the target must reciprocate their feelings, show obsessional interest, make inappropriate comments, monitor the person's activities, follow them, pursue them in a threatening manner, make threats against the person, and threaten self-harm (Stokes et al., 2007). Another study found behaviors such as lack of empathy, revealing private parts, and inappropriate courtship behaviors such as stalking may contribute to increased victimization of others by those with ASD (Roth & Gillis, 2015). The results indicate that adolescents and adults with ASD do not know how to discriminate between appropriate and inappropriate behaviors, or to be discerning in their choice of target.

Beddows and Brooks (2015) sought to describe the inappropriate behaviors that present in individuals with ASD and explain why these behaviors occur. From their study, they found that sexual behaviors in these individuals that occur are hypermasturbation, public masturbation, inappropriate romantic gestures, and inappropriate arousal and exhibitionism (Beddows & Brooks, 2016). Beddows and Brooks (2016) came to the conclusion that such behaviors are thought to be caused due to lack of understanding of puberty, the absence of appropriate sex education, and the severity of the ASD. They suggested that individualized, repetitive education should be started from an early age. As mentioned before, there is currently a lack of education available to this population; therefore, there is a need for professionals like OTs to

educate individuals with DD on topics relating to sexuality, including safe and unsafe dating behaviors.

Because of the social deficits that individuals with ASD often exhibit, success with traditional, face-to-face dating may force these individuals to look for alternative methods. One way individuals with ASD are seeking avenues for dating is through online services; however, there is an increased risk due to decreased discrimination between safe and unsafe behaviors. Roth and Gillis (2015) looked at the strengths and weaknesses of online dating for a sample of individuals with ASD over the age of 19. The researchers sent out surveys to identify participants' online dating preferences (Roth & Gillis, 2015). They found that 38% of active daters have used online dating, 64% reported that there are aspects of online dating that they find easy such as having control over self-presentation, and 81% indicated that they had safety concerns (Roth & Gillis, 2015). Considering online dating is of interest to many individuals with DD, it is important that online dating, including safety concerns associated with the topic, are addressed.

### **Current Interventions**

When addressing skill deficits in individuals with ASD, there are various intervention techniques that can be used, each having its own strengths and weaknesses. One study looked at which methods were most effective in addressing social participation, play, leisure, restricted behaviors and repetitive behaviors for those with ASD (Tanner, Hand, O'Toole, & Lane, 2015). The researchers conducted a systematic review of 66 articles and found that social skills groups, parent-mediated intervention, the use of picture exchange communication systems, and joint attention interventions were effective intervention methods to address these concerns (Tanner et al., 2015).

Social skills training (SST) is a common intervention approach to address the deficits in social functioning in individuals with developmental disabilities such as ASD (Deckers, Muris, Roelofs, & Arntz, 2016), intellectual disability (Bundock & Hewitt, 2017), and attention deficit hyperactivity disorder (Willis, Sicheloff, Morse, Neger, & Flory, 2019). When implementing SST to individuals with developmental disabilities, various interventions can be used to promote skill acquisition such as role-playing. Researchers studied the effectiveness of motor-based role-play on increasing social skills for adolescents with high functioning ASD (Gutman, Raphael-Greenfield, & Rao, 2012). The participants were those with high functioning ASD between the ages of 15 and 21 (Gutman et al., 2012). The researchers defined high functioning ASD as those who scored average or above average on a high school aptitude test (Gutman et al., 2012). The intervention used a manual with seven modules that covered various topics related to social skills such as social skills in the community and exploring dating (Gutman et al., 2012). The results showed that the participants improved both their verbal and nonverbal behavior after completing the role-playing program (Gutman et al., 2012). Therefore, role-playing may be a useful intervention strategy to help individuals with DD generalize information by applying the concepts learned to a simulated interaction.

Another study found that the utilization of discrimination training can be effective for teaching students with ASD social skills (Leaf et al., 2016). In this procedure, the teacher demonstrated a behavior in a manner that is either appropriate or inappropriate (Leaf et al., 2016). The child then had to decide if the demonstration was appropriate or inappropriate (also known as discrimination training), and the teacher provided either reinforcement for a correct response, or corrective feedback for an incorrect response

(Leaf et al., 2016). Finally, the student was tasked with role-playing an appropriate behavior in the given situation (Leaf et al., 2016). This combination of discrimination training and role-playing procedure may be a viable method for clinicians to teach social communication and social behavior to individuals with ASD (Leaf et al., 2016).

In fact, a comprehensive social skills program may promote skill acquisition in a group setting because individual learning styles vary from person to person. Hetzroni and Banin (2016) delivered a demonstration in the form of video modelling to show different social behaviors. The researchers used discrimination training to have participants determine whether the behaviors were “appropriate” or “inappropriate.” Then, group discussions relating to the behaviors shown provided participants with the opportunity to use social problem solving by explaining the situation, identifying possible consequences to the behavior, and offering possible appropriate behaviors relating to the situation (Hetzroni & Banin, 2016). Finally, participants worked in pairs to role-play and act upon the social skills discussed in front of the group. The comprehensive intervention procedure proved to be effective in that participants were able to modify their behavior, increase the appearance of social behaviors, transfer new skills to various settings, and provide the appropriate actions when needed in a natural manner (Hetzroni & Banin, 2016). Embedding multiple SST strategies, such as role-playing and discrimination training, can create an open, interactive learning environment for individuals with DD that will help them understand appropriate interpersonal behaviors and healthy relationships.

It has been found that restricting appropriate sexual and social interactions results in individuals with disabilities being more vulnerable to inappropriate sexual

relationships and exploitation (Ward et al., 2013). Therefore, individuals with developmental disabilities could benefit from education on appropriate strategies required for developing dating skills. In a study by Ward et al. (2013), a Friendships and Dating Program (FDP) had high success rates in teaching social interaction skills necessary for adults with developmental disabilities to develop meaningful and healthy relationships. The FDP focused on aspects of dating such as types of relationships, personal boundaries, communication, meeting people, planning social activities, and the dating process. The study proved that the participants benefited from opportunities to apply social interaction skills taught in the classroom through practicing and acquiring skills in the community with real-life situations (Ward et al., 2013). Therefore, embedding multiple SST strategies, such as role-playing and discrimination training, can create an interactive learning environment for individuals with DD that will help them understand appropriate interpersonal behaviors and healthy relationships.

Corona et al. (2015) studied the importance of parental involvement in educating adolescents with developmental disorders on sexuality and relationships. In their study, they included both adolescents with ASD and their parents in six two-hour education programs over the course of three months. Topics covered in these programs were sexuality, puberty, personal hygiene, types of interpersonal relationships, appropriate dating behavior, and safety issues related to sexuality and relationships (Corona et al., 2015). Results from this study show that the inclusion of parents in a sexuality and relationship program for adolescents with ASD is beneficial because it increases the communication about the topics between the parent and adolescent (Corona et al. 2015). Parents included in this study also reported enjoying the group format because it provided

opportunities to share experiences with other parents, as well as providing their children with social opportunities (Corona et al. 2015).

Parent mediated interventions have been found to be effective, but one study found such interventions can be improved when a therapist works alongside the parents. The study randomly assigned families to either use self-directed parent mediated interventions or therapist-assisted parent mediated interventions (Ingersoll, Wainer, Berger, Pickard, & Bonter, 2016). All families had children who had been diagnosed with ASD and were between 19 and 73 months of age (Ingersoll et al., 2016). The study found that those who had therapist-assisted interventions improved the most in their use of the intervention and had an increase in their positive perceptions of their children (Ingersoll et al., 2016). Furthermore, children of those who had received therapist-assisted intervention had a greater increase in social skills (Ingersoll et al., 2016). It is true that parent mediated interventions are successful, but this study by Ingersoll et al. (2016) has shown they have increased benefit when combined with the use of a therapist.

One randomized control trial studied the use of a psychosexual training program for people ages 12 to 18 with ASD (Visser et al., 2017). The researchers conducted this study in order to gain insight into participants' cognitive outcomes, such as psychosexual knowledge, interpersonal boundaries, and behavioral outcomes which include the skills involved with dating and inappropriate sexual behavior (Visser et al., 2017). The researchers used self-reported and parent-reported questionnaires to measure improvement and weekly reports were sent home to the parents containing information about the topics (Visser et al., 2017). The researchers involved parents to encourage communication about psychosexual topics and encourage learning in different contexts

(Visser et al., 2017). After the intervention, participants were found to have improvements in the cognitive outcomes when compared to the control group that did not receive any intervention (Visser et al., 2017). Therefore, parent and caregiver education is an important aspect to consider when working with individuals with DD.

Because there is a negative impact of victimization on an individuals' mental health and well-being, sexual education may be a proactive measure to teach individuals with DD how to maintain safe relationships. In addition to providing information on sexuality in our program, group SST will be an effective way to educate this population on the importance of initiating and maintaining healthy romantic relationships (Deckers et al., 2016; Bundock & Hewitt, 2017; Willis et al., 2019). Group interventions can create an environment for open communication and shared experiences for participants (Corona et al. 2015). Role-playing and discrimination training activities in a group setting may also help solidify our participants' knowledge gained from the program (Gutman et al., 2012; Leaf et al., 2016). Furthermore, parent involvement in participants' education will promote communication and generalization of learned skills into the home and other natural environments (Corona et al. 2015).

### **Theoretical Framework**

OTs use an array of theoretical models to guide their practice and to provide a client-centered approach to intervention. The Person-Environment-Occupation-Performance (PEOP) model was developed in 1985 by Charles Christiansen and Carolyn Baum. This model recognizes that there is a transactional relationship between four components—the person, environment, occupation, and performance—that are interdependent on one another (Cole & Tufano, 2008). Performance components or client



factors (AOTA, 2014) of an individual has a significant influence on his or her success in the engagement of occupations (Law, 2013). The environment also contributes to the transactional relationship in that there are cultural, institutional, physical, and social factors that influence an individual's ability to complete occupations in different contexts. The results of these components interacting with one another can either hinder or enable an individual's occupational performance.

According to the PEOP model, dysfunction arises when there is a lack of fit between the person, environment, and occupation which leads to deficits in occupational performance (Cole & Tufano, 2008). For example, occupations can place affective, cognitive, and physical demands on an individual, preventing them from performing roles to a level of personal or social satisfaction. Deficits in a person's ability can be attributed to health conditions, restrictive barriers, and lack of resources within the environment (Cole & Tufano, 2008). It is important for the occupational therapist to analyze these factors and determine why there is a lack of fit between the person's skills, requirements of the occupation, environmental demands, and the person's performance in occupations.

Critical changes occur during the transition from adolescence to adulthood, which may be why some individuals face limitations while engaging in occupational performance around this time. As young people mature and take on more responsibilities as young adults, it is necessary for these individuals to learn and develop personal factors to manage these new roles (Law, 2013). When the individual is unable to manage these adult roles, there is a disruption in the transactional relationship between the person, environment, occupation, and performance. This disruption can lead to disability, preventing the individual from carrying out occupational performance.

In adolescence, children explore their environments to develop independence and a sense of self. Erik Erikson proposed that during this stage of development, adolescents undergo an “identity crisis” in which individuals try to figure out what social roles they want to assume in later adult years (Cole & Tufano, 2008). These roles may pertain to things such as occupation, relationships, and family. It is only when the individual develops a true sense of self that he or she is able to progress to the next stage. In young adulthood, an individual experiences a desire for intimacy and a fear of isolation. During this stage, Erikson believed that the individual develops the ability to give and receive love, form long-term relationships, and form close friendships (Cole & Tufano, 2008).

It is important to note that these developmental stages are sequential: An individual’s behaviors are primarily influenced by the extent to which an individual has mastered and progressed through previous stages. In order for us to address the concerns of our participants, we must help them develop a sense of self. We can do so by helping them identify social roles they want to assume as an adult (e.g., boyfriend, girlfriend, husband, wife, etc.) and the key constructs required to fulfill these roles. In doing so, we can guide the individual in the progression from adolescence to the next stage of intimacy in Erikson’s developmental theory.

### **Methodology**

The goal of this program was to evaluate the satisfaction and the knowledge gained from workshops on safe dating behaviors by participants of Life College.

### **Participants and Setting**

The original approved protocol was to recruit participants over the age of 18 enrolled in a transition program through Tustin Unified School District (TUSD) in

Orange County. However, we were not able to obtain approval from TUSD to implement our program. Therefore, we modified our setting, with approval, and recruited male and female participants over the age of 18 enrolled in a transition program through Life College in Irvine, California. The transition program at Life College focuses on developing and improving life and vocational skills. Life College was developed by OTs at Stanbridge University with the goal of assisting young adults with developmental disabilities achieve independence and employment. Those that take part in the Life College transition program participate in classroom learning that includes interpersonal and living skills, group social outings in the community, and internships. Although Life College focuses on most skills necessary to achieve independence in daily living, Life College does not focus on relationships and dating, making Life College a great candidate for our workshops.

Inclusion criteria for our study included participants over the age of 18 with a developmental disability and enrolled in a transitional program. All members of Life College's transition program fit our inclusion criteria of being at least 18 years of age and diagnosed with a developmental disability. According to the Centers for Disease Control and Prevention (2018), ASD, attention deficit hyperactivity disorder, cerebral palsy, fetal alcohol syndrome disorders, fragile X, hearing loss, intellectual disability, kernicterus, language and speech disorders, learning disorders, muscular dystrophy, Tourette syndrome, and vision impairment are classified as developmental disabilities. Participants were also able to verbally communicate and engage in a question/answer relationship per parent or self-report.

Individuals that were not affiliated with Life College were excluded from this study. Students of Life College that were under the age of 18 were also excluded from this study. Individuals affiliated with Life College that were unable to verbally communicate and engage in a question/answer relationship per parent or self-report also met exclusion criteria as well.

To recruit participants, we contacted Life College, explained our program, and obtained consent from the program coordinator to inquire about student participation in our program at this location. Emails were sent to parents/guardians about the program and the parents/guardians talked to their children to determine interest in the program. One participant was a middle-aged adult who lived on her own and did not require a parent/guardian to sign the consent form. The email contained details about the program, what topics will be covered during the workshops, and consent and assent forms (see Appendix B and C). The PowerPoint slides from the first and second workshops were also sent to participants and parent or guardian prior to the signing of consent and assent forms to ensure they were comfortable with the topics that were discussed. Consent forms were signed by the participant's parent or guardian and assent forms were signed by the participant and the participant's parent or guardian. Forms were returned via email and collected at the beginning of Workshop One.

Consent forms, assent forms, participant contact information, pre-tests, post-tests, and all other documents relating to the research were stored securely with researchers to ensure confidentiality. Only the four students conducting this research project and their faculty advisor had access to the documents. After analysis of the data collected in research, all documents and participant information were safely destroyed.

**Intervention Procedure**

There was a total of three workshops discussing topics related to dating and relationships, which took place on October 3rd, 4th, and 10th, 2019. These dates were mutually agreed upon between Life College and us due to the convenience of Life College's designated classroom time. We also wanted the workshop dates to be close together to influence the probability of retention. The first two workshops addressed the following topics: how to approach people, appropriate touch, social interactions with dating, dating behaviors, stalking behaviors, consent, and online dating safety. The third workshop was a review of the information the participants had learned and contained material from the first and second workshop.

Participants were given a pre-test questionnaire on the level of confidence they felt in the daily workshop topic (see Appendix E, F, and G). The questionnaire also included scenario-based questions that asked participants what they thought was the best way to respond in specific situations. The workshops were an hour each, with a lecture to introduce the topic followed by role playing games that had the participants practice socially appropriate behaviors. There was time for a group discussion that allowed participants to ask additional questions regarding each topic. A post-test questionnaire was given to all participants at the end of the workshop to measure differences before and after the intervention (see Appendix E, F, and G).

The first two workshops were conducted in the same week on consecutive days, and the third workshop was conducted the following week. On the first day of the workshops, we made sure each student and their parents had completed both consent and assent forms (see Appendix B and C). In addition, we reviewed the assent form using

PowerPoint slides and obtained verbal consent from all participants. The first two workshops consisted of an ice breaker activity, a pre-test to measure prior knowledge on the topic, a PowerPoint lecture that covered the topics of that day, educational videos to help aid in understanding concepts, role-playing activities, time for participants to ask and discuss any questions, and a post-test to measure what the participants had learned from the workshop. The third workshop began with an ice breaker activity, then a review of the first and second workshops using various activities were used so that participants could apply their knowledge through interactive instruction. These activities included categorizing relationship descriptions written on a piece of paper and answering questions relating to the workshop content while passing a volleyball in a circle. A pre-survey was given at the beginning of the first workshop and a post-survey at the end of the third workshop asking about the participant's comfort level on certain topics regarding relationships and dating, using a "Yes," "No," or "I don't know," scale to measure differences in the participants' comfort level on each topic (see Appendix D).

The first workshop covered how to approach people including characteristics of a healthy and unhealthy relationship; what to do and what not to do when talking to someone; tips on starting a conversation; how to know if someone is interested or not interested in a conversation; what to do if someone does something you do not like; and definitions of a friend, dating, romantic relationships, romantic partner, and consent. A video explaining consent was shown to help participants better understand how consent can be used to develop and maintain appropriate relationships with others. For the role-playing activity, four scenarios were given based on the topics of the day to allow students to apply the concepts learned to real-life situations. The first two scenarios were

acted out by two facilitators and the last two scenarios were acted out by student volunteers. During the role-play, a pre-written scenario was read by facilitators demonstrating an appropriate or inappropriate interaction related to the topic discussed. When prompted, all participants raised a “don’t” card if they believed the interaction was not appropriate and a “do” card if they believed the interaction was appropriate. For appropriate interactions, the participants were asked why they thought it was appropriate, using the information was taught in the workshop. For inappropriate interactions, the participants worked in pairs to brainstorm and role-play possible corrections to make the interaction appropriate.

The second workshop covered dating and online dating safety, including the four different types of dating violence (emotional, physical, sexual, and stalking), a review of healthy and unhealthy relationships, what to do when you experience dating violence, definitions of what stalking and cyberstalking are and why they are bad, how online dating can be dangerous, how to protect yourself from dangers on the Internet, what to do when meeting online friends in the real world, and how to handle rejection. One video was shown to help demonstrate and explain various features of a healthy relationship and an unhealthy relationship so that participants can recognize the importance of maintaining healthy relationships with both their romantic partners and their peers. Then, participants were given four scenarios and asked to distinguish what type of dating violence is being explained in the scenario and explain why.

During the second workshop, a video was shown to participants to demonstrate the repercussions of cyberstalking and the fear experienced by victims of cyberstalking. Another video was also shown to help participants understand how to handle rejection.

For the role-playing activity, two pre-written scenarios were given based on the topics of the day to allow students to apply the concepts learned to real-life situations. The first scenario was acted out by two participants and the last scenario was read aloud. Both scenarios were identified as inappropriate by participants and were asked to explain why. Since the first scenario was acted out by two participants, they were asked to role-play a more appropriate way to handle the scenario.

The third workshop was a review of the first and second workshop so that participants could acquire and maintain previous knowledge through repetition. During the third workshop, various class activities were used to present the learned information to participants in a new way. In the beginning of the workshop, the facilitators reviewed four questions that were commonly missed on the posttests for the previous workshops. Then, participants were asked to participate in a class activity and were given strips of paper with descriptions written on them. First, participants were asked to determine if the strip was describing a healthy relationship or an unhealthy relationship. Then, participants were asked to place the strip on a piece of paper on the wall labeled “healthy” or “unhealthy” depending on the description. After participants were finished placing strips on the wall, the facilitators reviewed the results with the participants and explained why the answer was correct or incorrect. Next, participants were asked to determine if the strip was describing something they would do when approaching someone to start a conversation or something they would not do and place their strip of paper on the correct wall. Finally, participants were asked to determine if the strip was describing a behavior that would demonstrate if the person you are talking to is interested or not interested in you, and then place their strip of paper on the correct wall. For both of



these activities, facilitators reviewed the results with the participants and explained why the answer was correct or incorrect.

During the third workshop, facilitators reviewed how to determine whether a person is a romantic partner because this was a question that was commonly missed on the first workshop post-test. Facilitators emphasized that both partners must talk to each other about it and agree that they are romantically involved. Participants were then divided into pairs and picked from a list of scenarios that included sitting next to someone you do not know, approaching someone to start a conversation, asking for a hug, recognizing when someone is not interested in you, telling someone that they are doing something that you do not like, and determining whether someone is a romantic partner. Participants were asked to pick a scenario they felt comfortable with and role-play how to handle the situation appropriately while facilitators monitored each pair.

Next, participants were given strips of paper with a description of different types of dating violence. Similar to the previous activities, participants were asked to determine if the strip was describing physical, emotional, sexual, or stalking violence, and then place their strip of paper on the correct wall. Facilitators reviewed the results with the participants and explained why the answer was correct or incorrect. For the next class activities, participants and facilitators were asked to stand in a circle and pass a beach ball while music was playing. Once the music stopped, the person holding the ball was asked to pick a question and answer the question as an individual or the answer was discussed as a group. The questions went over material from the first two workshops that the facilitators did not discuss during the third workshop to help increase knowledge through repetition. Finally, three pre-written scenarios were given based on the topics of the day

to allow students to apply the concepts learned to real-life situations. The first scenario and third scenario were determined as appropriately handled situations. The second scenario was determined as an inappropriately handled situation and facilitators discussed with participants the reason why.

Participants were provided with a take-home folder that included a review sheet for each workshop along with a worksheet to help facilitate conversation on the topics with their parents and to answer the questions together. For each workshop the participants were instructed to get initials as well as written comments and feedback from their parent or caregiver on the review handout and worksheet to encourage communication and ensure that participants discussed the daily topics with their parent or caregiver. Also, by providing a take-home folder for the participant and the parent or caregiver to facilitate a conversation with one another, we hoped to increase continuity and reinforcement of the information taught in the workshops in the home.

### **Ethical and Legal Considerations**

We conducted the proper ethical and legal protocol before implementing our program to ensure our study upheld the principles of beneficence and nonmaleficence. First, we submitted a proposed plan to the Institutional Review Board, which required a full board approval due to the vulnerability of our participant population. When the plan was approved, we started our process of obtaining consent. We obtained consent by submitting a proposal to Life College which described the purpose of our research and the requirements for participation (see Appendix A). Once the proposal was approved and we were able to establish a partnership with the organization, we recruited participants from Life College who met the inclusion criteria for our research.

We ensured that the participants and their caregivers were informed of the intentions of this research in order to uphold the ethical principle of veracity. We made sure each participant understood the implications of taking part in the research, that participation was voluntary, and that they could withdraw from the research at any time. Although participants were over the age of 18 and had reached the legal age of consent, we were working with a vulnerable population (young adults with DD). Therefore, we obtained written informed assent from all participants as well as informed written consent from all participants' caregivers (see Appendix B and C). Participants were instructed to submit these forms to a Stanbridge University email that was used exclusively for this research project. The Stanbridge University email was used with a secured and encrypted email network and only the research students and their thesis faculty advisor had the password to access the information shared. We also wanted to make sure that we respected the ethical principle of autonomy by ensuring the participants wanted to be part of our program. In addition to written informed consent, we provided a verbal explanation before the start of the first workshop explaining the risks, benefits, and the structure of the program. After explaining what the program entailed, we obtained verbal consent from all participants of the study.

There was one conflict of interest which may have made the site feel obligated to allow researchers conduct their study at the site. One researcher was employed through Life College at the time of the project; however, we made sure to inform the site that their decision should be an unbiased one. A list of potential risks and benefits of our project was provided for them to reference to make their informed decision.

## Results

The questions asked on the pre- and post-workshop survey included: *1. I feel comfortable asking my parents about dating, 2. I feel comfortable with the idea of dating, but I am not sure how, 3. I feel comfortable talking to people online, even if I have never met them in real life, 4. I feel comfortable starting a conversation with someone I like, 5. I feel comfortable saying no when someone does something I don't like, 6. I feel comfortable asking for permission before I touch someone (hugging, holding hands, or kissing)* (see Appendix D). Out of the six participants, one student felt comfortable with all six items on the pre-workshop survey, two students felt comfortable with five items, one student felt comfortable with four items, two students felt comfortable with three items, and one student felt comfortable with one item. On average, participants felt comfortable with 4.2 of the items listed on the pre-workshop survey, felt uncomfortable with 1.2 items, and did not know how to rate their comfort level about 0.6 of the items. On the post-workshop survey, two students felt comfortable with five of the items, three students felt comfortable with three of the items, and one student felt comfortable with one of the items. On average, participants felt comfortable with 3.5 of the items listed on the post-workshop survey, felt uncomfortable with 1.5 items, and did not know how to rate their comfort level about 1 of the items. Therefore, participants report an overall 16.66% decrease in what items they felt comfortable discussing that were listed on the workshop surveys.

Participant	Yes	No	I don't know
1	4, 5	3, 6	1, 2
2	1, 2, 4, 5, 6	3	
3	1, 2, 3, 4, 5, 6		
4	1, 2, 4, 5, 6	3	
5	1, 4, 5	3	2, 6
6	1, 2, 4, 6	3, 5	

Table 1: Pre-Workshop Survey Results. *The table displays the results from pre-workshop survey on comfort level of dating concepts. Numbers under “Yes,” “No,” and “I don’t know” columns reflect survey item number to which they responded.*

Participant	Yes	No	I don't know
1	1, 4	2, 3	5, 6
2	1, 2, 4	3, 5, 6	
3	1, 4, 6	3	2, 5
4	1, 3, 4, 5, 6	2	
5	1, 2, 4, 5, 6	3	
6	1, 5, 6	3	2

Table 2: Post-Workshop Survey Results. *The table displays the results from post-workshop survey on comfort level of dating concepts. Numbers under “Yes,” “No,” and “I don’t know” columns reflect survey item number to which they responded.*

Workshop	Yes	No	I Don't Know
1	25	7	4
3	21	9	5
Percent Change	-16.00%	+28.57%	+25.00%

Table 3: Percent Change of Pre- and Post-Workshop Survey Results. *The table displays the results from pre- and post-workshop survey administered during the first and third workshop. Percent change from pre- and post-workshop survey are listed in the last row.*

Scores from the knowledge-based quizzes at the end of the first and second workshop show slight improvements in the post-test scores when compared to the pretest scores. The class average pretest score for the first was 8.67 correct and the class average posttest score was 9.33 correct. The class average pretest score for the second workshop was 8.50 correct and the class average posttest score was 9.00 correct.

Workshop	Pretest Class Average	Posttest Class Average	Percent Change
1	8.67	9.33	+7.07%
2	8.50	9.00	+5.56%

Table 4: Knowledge-Based Pretest and Posttest Results. *The table displays the results from knowledge-based pretest and posttest administered during the first and second workshop. Percent change from pre and posttest scores are listed in the last column.*

### Discussion

According to the pre- and post-workshop surveys, participants reported an overall decrease in comfort level with the topics. After analysis of the pre-workshop survey, the researchers noticed 83% of participants felt uncomfortable talking to people online, even if they have never met them in real life. To try to increase comfort of participants with this topic, the researchers tried to expand on this topic during the third workshop to increase participants' comfort with online dating. However, according to the post-workshop surveys, 83% of participants still reported that they feel uncomfortable with the idea of online dating. Although there were slight improvements in the post-test scores when compared to the pre-test scores, the improvement is not significant.

In the data collected from the pre- and post-workshop surveys, there was a 16% decrease of “Yes” responses, 28.57% increase of “No” responses, and 25% increase of “I don’t know” responses from participants overall. We hoped that our workshop would increase each participant’s comfort level with the various topics of dating; however, the results do not reflect this. Instead, participants reporting an overall decrease in comfort level on the post-workshop survey may reflect that our program increased participants’ awareness of the legal and safety issues that can arise while dating. For example, one participant verbally expressed that after attending our workshop, she realized that someone may have been engaging in cyberstalking behaviors towards her, to which her father was made aware of. She explained that she was able to gain more knowledge from our workshops and wish that our program would continue because it was very beneficial for her and her safety.

Furthermore, there may be other participants that have experienced dating violence, stalking, and cyberstalking behaviors in the past. Similarly, participants themselves may have even been engaging in these behaviors without their knowledge. Since our workshops were designed to be implemented as a short-term program, participants may require more information on these new issues for them to feel confident in handling adverse dating situations. Due to a lack of formal education on these topics, it is important to discuss the consequences of these behaviors with young adults, especially those with ASD, so that these individuals can get the help they need or avoid the possibility of legal repercussions.

For our program, we were unsure of what our participants' reading level would be, so we simplified the pre- and post-tests for our workshop. To avoid overwhelming our

participants, we originally included only three answer choices for our pre- and post- tests. After the first workshop, we realized that many of the participants got a lot of the answers right on the pre-test so there was not much room for improvement on the post-test. To increase the difficulty of our tests for the second and third workshop, we decided to add a fourth answer choice for the pre- and post-tests. Again, there was only a slight increase of change between the pre- and post-test scores, which may indicate that the tests were too easy for our participants. Since this was meant to be an introductory course and we were unfamiliar with each participant's level of knowledge beforehand, it may have been more beneficial to conduct a needs assessment to better identify focus topics that will benefit the students at Life College for future program implementation.

Furthermore, the researchers realized that one of the statements on the pre- and post-workshop survey was a bit confusing which may have skewed results. The second item on the post-workshop survey states, "I feel comfortable with the idea of dating, but I am not sure how." Rather than include two different statements, we could have simplified it by only including the first statement, "I feel comfortable with the idea of dating" to decrease confusion among participants. Some participants may have only read the first part of the statement ("I feel comfortable with the idea of dating"), while others may have focused on the last part of the statement ("I'm not sure how"). We have revised this statement on the pre- and post-workshop surveys in our R.A.D. Program manual for Life College.

### **Future Implications for Occupational Therapy**

It has been documented that there is a lack of formal education being provided to young adults with DD to address sexuality and appropriate dating behaviors. While



sexuality courses are often embedded in the general education curriculum, individuals with DD do not have access to the same opportunities, resulting in occupational deprivation. For example, an individual with DD with limited knowledge on safe and appropriate dating practices may have difficulties acquiring a relationship or become a victim of sexual abuse. Additionally, occupational deprivation in conjunction with the social deficits often exhibited by individuals DD can further result in occupational alienation. Occupational alienation occurs when individuals experience isolation or a sense of meaninglessness resulting from a lack of resources or opportunities to engage in occupations, such as dating. As OT professionals, it is our role to advocate for occupational justice within the community to prevent things like occupational deprivation and occupational alienation while simultaneously encouraging health promotion amongst all community members. By providing individuals with DD with an educational program on sexuality, OTs can provide these individuals with the tools necessary to form meaningful relationships which can ultimately lead to a sense of empowerment and better health outcomes.

As mentioned, sexuality consists of an individual's sexual feelings, the individual's sexual expression, and his or her ability to be intimate with another person. These behaviors can be categorized as occupations under the OTPF, therefore, OTs scope of practice allows practitioners to address concerns relating to relationships and dating. Since there is a lack of formal education on these topics being provided to young adults with DD, OTs can look into creating community-based programs to help this population engage in safe dating behaviors. Because sexuality is a sensitive topic, our program sought to cover the basics before diving into more complex concepts. We wanted our

program to focus on emphasizing healthy relationships, recognizing signs of dating violence, practicing safe online dating behaviors, and avoiding legal consequences. Overall, the feedback from participants' parents was positive, and they expressed the need for a program addressing such issues. Practitioners may also benefit from conducting a needs assessment and including stakeholders in the program planning process to determine what concerns should be addressed in order to best serve the members of the community.

### **Limitations**

There were some limitations identified before and during our workshops. First, the sampling used was a convenience sampling which limits the generalizability of the intervention. We recruited from only one facility in Irvine, California. Due to the limited sampling there may be extraneous variables that we were unaware of. For example, online dating may not be used in a different city so the results would be different. Furthermore, our sample size was small which further limits generalizability. The results may also have been skewed by participants waiting to see what others answered during the role-playing activity.

The reading level of participants was another aspect to consider. Our workshop was developed off the assumption that our participants were able to read, but it was hard to define what level of reading was required. There were participants who could not read as well as others which may have affected their test scores. Also, some participants may have been able to read but were not able to comprehend the content which would have skewed our results. One participant stated she was going to "just guess" on the pre- and post-test. The participant got every question wrong on the first workshop pre-test and got

one question right on the post-test. We struggled to determine if the content was too hard for her, she could not read it, or she did not want to take the time to complete it. One researcher went through the test one question at a time with her one-on-one and she got nearly every question right so we determined she did not want to answer the questions but did understand the content and could read it. We reviewed the assent forms at the beginning of Workshop One verbally with the class to minimize misunderstanding. We also read the pre-test questions and answers out loud with the class to ensure they knew what the questions were. We tried to explain the question to the best of our ability without giving the correct answer away.

Furthermore, due to the variability in the understanding levels of the participants, some felt the program was too easy. These participants scored high on the pre-test so there was little to no change on the post-test. We felt the test was too easy and would recommend making it harder in the future. One participant put his head down during the presentation which could indicate boredom. Some participants in the back row seemed less engaged than participants in the front row. After the first workshop, we added more activities to make the workshop more engaging for the participants. We also tried to encourage the participants in the back row to move to the front row during Workshop Two to increase their participation. In the future, it may be better to have separate workshops depending on the participants' prior knowledge of the subject, reading level, and understanding level, as well as move seats every workshop.

The participants did well when answering whether they would do or not do a scenario, but we observed some participants looking at what others answered before answering. This could show that they did not really understand the content but still

wanted to get the question right. Performing an anonymous poll in class would have provided a better understanding of how many people understood the appropriate action to take during scenarios.

It is also important to note how the participants reacted to the workshops. Some participants felt uncomfortable discussing romantic relationships or may have been hesitant to answer questions due to fear of answering incorrectly. There were only two participants that were willing to role-play in front of the class. In the third workshop, we had the participants role-play in partners so they could practice without being in front of the class. Similarly, those that did answer could have felt embarrassed or incompetent if the answer was incorrect. We tried to encourage participation and explain this was a learning process. We did not phrase answers as correct or incorrect, but rather as appropriate and inappropriate.

Another limitation was that our impact was dependent on continued interactions between the caregiver and the participant, but continued discussion was not ensured. To help increase the chance of continued communication, we sent binders home with materials from the workshops that required a signature from a caregiver on a topic review handout. Requiring a signature, however, did not mean that the caregiver read or discussed the topic presented that day. Furthermore, some students did not bring their folders back, so we did not know if the topic was discussed with those students and their caregivers. While attendance was not mandatory for all workshops but encouraged, some participants did not attend all three workshops, which also posed limitations on our study.

### **Conclusion**

This project was created to educate individuals with DD on the importance of maintaining safe and healthy relationships with their romantic partners. Due to the negative impact of sexual victimization, education can be a proactive measure to teach individuals how to maintain safe relationships. Currently, there is a lack of formal education to address sexuality, especially in regard to safety and appropriate public behavior (Krantz et al., 2016). However, considering sexual activity is considered as an ADL, OTs can play a valuable role in addressing dating and relationships with clients.

The purpose of this study was to provide an educational platform on socially accepted romantic interactions for young adults who were enrolled in Life College, which is an adult transitional program located in Irvine, California. We predicted that after three one-hour-long sessions utilizing role-playing romantic relationship interactions and informational lecture, individuals with DD in this transitional program would have increased knowledge and comfort with appropriate romantic interactions. Overall, participants showed a decrease in overall level of comfort with the items listed on the survey. Although there were slight improvements in the post-test scores when compared to the pre-test scores, the improvement is not significant. We hoped that our workshop would increase participant's comfort level with the various topics of dating; however, the results from the pre- and post-workshop surveys actually reflect a decrease in overall comfort level possibly due to the nature of the topics causing discomfort. Although our results were not the same as our hypothesis, we unexpectedly found that there was a significant increase in awareness of safety issues by the third workshop compared to the first and second workshops. This increase awareness may have also led to participants

feeling uncomfortable with dating, because they may still have unanswered questions regarding the topic. We believe this shows a need for an educational program that spans over a longer period of time.

The need for education on romantic relationships for those with DD is clear, and studies have shown it can be beneficial. Few educational programs or workshops currently exist however on the topic of dating. We believe that more research is needed in combination with advocacy and publication in order to address this deficit in education. The biggest benefit we foresee is increased safety. Someone with DD may not be aware of what is appropriate or what to do when they are in a situation with a stranger, they want to escape which can cause a dangerous situation. Those with DD can gain increased insight into the impact of their actions and awareness into the possible actions of others in order to be vigilante of unsafe situations.

## References

- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy*, 68(Suppl. 1), S1–S48. doi:10.5014/ajot.2014.682006
- Asada, K., Tojo, Y., Osanai, H., Saito, A., Hasegawa, T., & Kumagaya, S. (2016). Reduced personal space in individuals with autism spectrum disorder. *PLoS ONE*, 11(1). doi: 10.1371/journal.pone.0146306
- Beddows, N., & Brooks, R. (2015). Inappropriate sexual behaviour in adolescents with autism spectrum disorder: What education is recommended and why. *Early Intervention Psychiatry*, 10, 282–289. doi:10.1111/eip.12265
- Brown-Lavoie, S. M., Viecili, M. A., & Weiss, J. A. (2014). Sexual knowledge and victimization in adults with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 44(9), 2185–2196. doi:10.1007/s10803-014-2093-y
- Bundock, K. E. & Hewitt, O. (2017) A review of social skills interventions for adults with autism and intellectual disability. *Tizard Learning Disability Review* 22(3), 148–158. doi:10.1108/TLDR-05-2016-0015
- Center for Disease Control and Prevention. (2018). Specific types developmental disabilities. Retrieved from <https://www.cdc.gov/ncbddd/developmentaldisabilities/specificconditions.html>
- Cole, M. B. & Tufano, R. (2008). *Applied theories in occupational therapy*. Thorofare, NJ: SLACK Incorporated.

- Corona, L., Fox, S., Christodulu, K., & Worlock, J. (2016). Providing education on sexuality and relationships to adolescents with autism spectrum disorder and their parents. *Sexuality & Disability, 34*(2), 199–214. doi:10.1007/s11195-015-9424-6
- Deckers, A., Muris, P., Roelofs, J., & Arntz, A. (2016). A group-administered social skills training for 8- to 12-year-old, high-functioning children with autism spectrum disorders: An evaluation of its effectiveness in a naturalistic outpatient treatment setting. *Journal of Autism & Developmental Disorders, 46*(11), 3493–3504. doi:10.1007/s10803-016-2887-1
- Dewinter, J., De Grant, H., & Begeer, S. (2017). Sexual orientation, gender identity, and romantic relationships in adolescents and adults with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 47*(9), 2927–2934. doi:10.1007/s10803-017-3199-9.
- Fulford, C., & Cobigo, V. (2018). Friendships and intimate relationships among people with intellectual disabilities: A thematic synthesis. *Journal of Applied Research in Intellectual Disabilities, 31*(1), e18–e35. doi:10.1111/jar.12312
- Gutman, S. A., Raphael-Greenfield, E. I., & Rao, A. K. (2012). Effect of a motor-based role-play intervention on the social behaviors of adolescents with high-functioning autism: Multiple-baseline single-subject design. *American Journal of Occupational Therapy, 66*(5), 529–537. doi:10.5014/ajot.2012.003756
- Hénault, I. (2005). *Asperger's syndrome and sexuality: From adolescence through adulthood*. London: Jessica Kingsley Publishers.
- Hetzroni, O. E., & Banin, I. (2017). The effect of educational software, video modelling and group discussion on social-skill acquisition among students with mild



intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 30(4), 757–773. doi:10.1111/jar.12271

Ingersoll, B., Wainer, A. L., Berger, N. I., Pickard, K. E., & Bonter, N. (2016).

Comparison of a self-directed and therapist-assisted telehealth parent-mediated intervention for children with ASD: A pilot RCT. *Journal of Autism and Developmental Disorders*, 46(7), 2275–2284. doi:10.1007/s10803-016-2755-z

Krantz, G., Tolan, V., Pontarelli, K., & Cahill, S. M. (2016). What do adolescents with developmental disabilities learn about sexuality and dating? A potential role for occupational therapy. *Open Journal of Occupational Therapy*, 4(2), 1–15. doi:10.15453/2168-6408.1208

Law, M. (2013). The McMaster lens for occupational therapists: Linking theory to practice. In D. Stewart (Ed.) *Transition to adulthood for youth with disabilities through an occupational therapy lens* (pp. 27–46). Thorofare, NJ: SLACK Incorporated.

Leaf, J. B., Taubman, M., Milne, C., Dale, S., Leaf, J., Townley-Cochran,

D.,...McEachin, J. (2016). Teaching social communication skills using a cool versus not cool procedure plus role-playing and a social skills taxonomy. *Education and Treatment of Children*, 39(1), 44–63. doi:10.1007/s40617-016-0112-5

Lichtenberg, P. A. (2014). Sexuality and physical intimacy in long-term care.

*Occupational Therapy in Health Care*, 28(1), 42–50.

doi:10.3109/07380577.2013.865858

MacRae, N. (2013). Sexuality and the role of occupational therapy. Retrieved from

<https://www.aota.org/About-Occupational->

[Therapy/Professionals/RDP/Sexuality.aspx](https://www.aota.org/About-Occupational-Therapy/Professionals/RDP/Sexuality.aspx)

Pecora, L. A., Mesibov, G. B., & Stokes, M. A. (2016). Sexuality in high-functioning

autism: A systematic review and meta-analysis. *Journal of Autism and*

*Developmental Disorders* 46, 3519–3556. doi:10.1007/s10803-016-2892-4

Roth, M. E., & Gillis, J. M. (2015). “Convenience with the click of a mouse”: A survey

of adults with Autism Spectrum Disorder on online dating. *Sexuality and*

*Disability*, 33(1), 133–150. doi:10.1007/s11195-014-9392-2

Stokes, M., Newton, N., & Kaur, A. (2007). Stalking, and social and romantic

functioning among adolescents and adults with autism spectrum disorder. *Journal*

*of Autism and Developmental Disorders*, 37(10), 1969–1986.

doi:10.1007/s10803-006-0344-2

Strunz, S., Schermuck, C., Ballerstein, S., Ahlers, C. J., Dziobek, I., & Roepke, S. (2017).

Romantic relationships and relationship satisfaction among adults with Asperger

syndrome and high-functioning autism. *Journal of Clinical Psychology*, 73(1),

113–125. doi:10.1002/jclp.22319

Swango-Wilson, A. (2011). Meaningful sex education programs for individuals with

intellectual/developmental disabilities. *Sexuality & Disability*, 29(2), 113–118.

doi:10.1007/s11195-010-9168-2

Tanner, K., Hand, B. N., O’Toole, G., & Lane, A. E. (2015). Effectiveness of

interventions to improve social participation, play, leisure, and restricted and

repetitive behaviors in people with autism spectrum disorder: A systematic

review. *American Journal of Occupational Therapy*, 69(5), 1–12.

doi:10.5014/ajot.2015.017806

Visser, K., Greaves, L. K., Tick, N. T., Verhulst, F. C., Maras, A., & van der Vegt, E. J.

M. (2017). A randomized controlled trial to examine the effects of the Tackling Teenage psychosexual training program for adolescents with autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, 58(7), 840–850.

doi:10.1111/jcpp.12709

Ward, K. M., Atkinson, J. P., Smith, C. A., & Windsor, R. (2013). A friendships and

dating program for adults with intellectual and developmental disabilities: A formative evaluation. *Intellectual and Developmental Disabilities*, 51, 22–32.

doi:10.1352/1934-9556-51.01.022

Willis, D., Sicheloff, E. R., Morse, M., Neger, E., & Flory, K. (2019). Stand-alone social

skills training for youth with ADHD: A systematic review. *Clinical Children and Family Psychology Review*, 1–19. doi:10.1007/s10567-019-00291-3

Wilkinson, V. J., Theodore, K., & Raczka, R. (2015). ‘As normal as possible’: Sexual

identity development in people with intellectual disabilities transitioning to

adulthood. *Sexuality & Disability*, 33, 93–105. doi:10.1007/s11195-014-9356-6

## Appendix A

## Thesis Site Proposal

Dear Life College,

We are students at Stanbridge University who are currently enrolled in the Masters of Science in Occupational Therapy Program. Like most Masters programs, we are required to develop a thesis, and have the option between a research-based or project-based thesis. For our thesis, we decided to take the project-based route. We are so excited and eager to begin this project, and are confident that it will be extremely beneficial to those who choose to participate.

For our project, we are targeting adolescents and adults with developmental disabilities who are interested in romantic relationships and dating. Our goal is to conduct three, one-hour long, weekly workshops where we will teach participants about romantic relationships and dating. During our workshops we will discuss a variety of topics that are important for this population, and we aim to give those who participate a better understanding of what is appropriate versus inappropriate in regard to these topics. The first two workshops will cover topics such as how to approach people of interest, what touch is appropriate, and dating behaviors (including online dating, stalking, and consent). The last workshop will summarize what has been learned, as well as go over any last questions.

We understand that these topics may be sensitive for some, and we will make it clear to those who participate that participation is optional throughout the course of the workshops; however, we feel that our workshops can be very beneficial and we hope to make a difference in the lives of our targeted population!

We were wondering if we could conduct our workshops with Life College participants? We hope that we may be able to use their class time to do this to maximize participation and minimize travel time for caregivers. We know that not all students will be participating, so we will arrange for a separate classroom for the relationships and dating workshops. If we can not use class time, then we are planning on conducting workshops on the weekend if approved.

**Risks and Benefits:**

There is a risk that participants may find some of the topics covered offensive or inappropriate, as well as the risk of feeling uncomfortable about talking about certain topics covered throughout the workshops.

Benefits from these workshops include increased knowledge and confidence regarding sexuality and romantic relationships. Also, participants will be learning and practicing safe techniques. Furthermore, conversation starters will be sent home to include the family and encourage discussion of the topics between the participants and the caregivers.

We ask to partner with your organization in order to recruit participants. We would recruit by sending flyers home to make parents aware of our workshop. Parents may then contact us through email so we may provide further information, answer any questions, and proceed with further consent procedures with them.

If you will allow us to recruit from your facility please sign below and check if we can use your facility or not. Thank you for your time and I hope you have a great day.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Can Use Facility: Yes No

Thesis Advisor Signature: \_\_\_\_\_

## Appendix B

Parent/Guardian Consent Form  
Romantic Relationships and Dating Workshops

Participants are being asked to take part in a research study on how education on romantic relationships and dating impacts the confidence and knowledge of young adults with developmental disabilities. We are asking you to take part because you expressed an interest in this study. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

**What the study is about:** The purpose of this study is to learn how workshops on romantic relationships and dating will impact students' knowledge of the topic and their confidence in applying the concepts that are discussed.

**What we will ask the participants to do:** If your child agrees to be in this study, they will be asked to participate in three, one-hour long workshops over the course of one month. The workshops will cover various topics relating to romantic relationships and dating. The first workshop will cover how to approach people, appropriate touch and social interactions with dating. The second workshop will cover dating behaviors, including stalking behaviors, consent, and online dating. The third workshop will be a review of everything covered during the first two workshops. Included in each workshop will be a pre-test, lecture on the topic, role-playing scenarios, and a post-test to test the knowledge learned throughout the workshop.

**Risks and benefits:** One possible risk to this study is that your child may find some of the topics covered offensive or inappropriate, as well as the risk of feeling uncomfortable about talking about certain topics covered throughout the workshops. Benefits from these workshops include increased knowledge and confidence regarding sexuality and romantic relationships.

**Compensation:** Participants will not be compensated for attending these workshops.

**Your answers will be confidential.** The records of this study will be kept private. In any sort of report we make public we will not include any information that will make it possible to identify you. Research records will be kept secure and only the researchers will have access to the records.

**Taking part is voluntary:** Taking part in this study is completely voluntary. Participants may skip any questions that they do not want to answer. Choosing not to take part or skipping some of the questions will not affect current or future relationships with Stanbridge University. Even after choosing to take part in the study, participants are free to withdraw at any time.

**If you have questions:** The researchers conducting this study are students and faculty at Stanbridge University's Master of Science in Occupational Therapy program: Sakiko Arai, Alexys Contemprato, Keely Kline, Mikayla Winkler, and Dr. Shari Emas. If you have any questions, you may contact us at rad@stanbridge.edu.

You will be given a copy of this form to keep for your records.

**Statement of Consent:** I have read the above information, and have received answers to any questions I asked. I give consent for my child to take part in the study.

Your Signature \_\_\_\_\_

Date \_\_\_\_\_

Your Name (printed) \_\_\_\_\_

Signature of person obtaining consent \_\_\_\_\_

Date \_\_\_\_\_

Printed name of person obtaining consent \_\_\_\_\_

*This consent form will be kept by the researcher for at least three years beyond the end of the study.*



## Appendix C

Participant Assent Form  
Romantic Relationships and Dating Workshops**1. What will happen to me in this study?**

You will be taking classes about dating and how you feel about dating. There will be three, one-hour long classes. First, we want to see what you know already. Then we will teach you about dating and you will take part in activities where you act out scenes. Lastly, we want to see how much you have learned from our classes.

These are the topics of the classes:

Class #1 = How to talk to people and act around people when dating

Class #2 = Dating and safety

Class #3 = Review of the first two classes

**2. Can anything bad happen to me?**

You may feel embarrassed or feel weird when talking about some of the topics in the classes.

**3. Can anything good happen to me?**

Yes! After going to this class we hope you will feel more open to talking to others and talking about dating.

**4. Do I have any choices during this study?**

At any time during the classes, you can choose to stop going to classes.

**5. Will anyone know that I am in this study?**

Nobody but the leaders, your family, and other students in the class will know you are taking this class.

**6. What if I get hurt, or don't feel right?**

If at any time you do not feel good or do not feel comfortable during the classes, we will get your teacher and do our best to help you feel better.

**7. Who do I ask about the study?**

You can contact us if you have any more questions.

Email - [rad@stanbridge.edu](mailto:rad@stanbridge.edu)

If you agree to be in this study, please sign here:

Name of the participant \_\_\_\_\_

Signature of participant \_\_\_\_\_

Date \_\_\_\_\_

## Appendix D

## Pre- and Post-Workshop Survey

Check the box that best describes you.

Questions:	YES	NO	I DON'T KNOW
1. I feel comfortable asking my parents about dating			
2. I feel comfortable with the idea of dating, but I am not sure how			
3. I feel comfortable talking to people online, even if I have never met them in real life.			
4. I feel comfortable starting a conversation with someone I like			
5. I feel comfortable saying no when someone does something I don't like			
6. I feel comfortable asking for permission before I touch someone (hugging, holding hands, or kissing)			

## Appendix E

## Workshop 1 Pre- and Post-Test Questions

Initials \_\_\_\_\_

1. You give Sarah a hug and she pushes you away. What do you do?
  - a. Try to hug her again
  - b. Yell she is mean
  - c. Say sorry and keep your hands to yourself
  
2. Someone puts their arm around your shoulder but you do not want them to. What do you do?
  - a. Let them
  - b. Ask if you can have some space
  - c. Push them away
  
3. You see your crush in the middle of a busy store. Your crush smiles at you and waves hello. What do you do?
  - a. Tell everyone that your crush is your boyfriend/girlfriend
  - b. Say hi and ask your crush how he/she is doing
  - c. Ignore your crush and walk away
  
4. You want to go up and talk to someone you like. How do you approach them?
  - a. Approach them from behind
  - b. Approach them and get very close
  - c. Approach them from the front and stay at least an arm's distance away
  
5. What are some things you can talk to your crush about?
  - a. Activities and music that you like
  - b. What city you are from and what city your crush is from
  - c. All of the above
  
6. You see your crush and want to sit next to him/her so you can talk. What do you do next?
  - a. Sit really close to him/her so your arms are touching
  - b. Ask your crush if the seat next to them is taken before sitting down and talking
  - c. Stare at them but don't say anything

7. You approach your crush and ask if he/she would like to go on a date. He/she says sorry but is not interested in going on a date. What do you do?
  - a. Say, "it's okay" and walk away because you understand that your crush is not interested.
  - b. Get mad and yell at them.
  - c. Walk away and come back 5 minutes later to see if they want to go on a date.
  
8. You and your crush have had 3 dates together and you are beginning to wonder if it is okay to call him/her your romantic partner. How would you know this?
  - a. He/she has held your hand
  - b. He/she has similar interests as you
  - c. You and your partner have told each other that you are romantic partners
  
9. You are on a date with someone you are interested in and you want to give them a kiss. What do you do?
  - a. Ask if it is okay to give a kiss before you do it
  - b. Kiss him/her because you assume it is okay since you are on a date
  - c. Tell him/her to kiss you so you do not have to make the first move
  
10. You are talking to your crush and you are having a difficult time telling if he/she is interested in you. What is a sign that he/she might not be interested?
  - a. They are smiling and nodding as you talk
  - b. He/she is nice to you
  - c. He/she is looking/facing away from you when you are talking

## Appendix F

## Workshop 2 Pre- and Post-Test Questions

Initials \_\_\_\_\_

1. You have an online friend that you have never met. If they say they want to meet you in real life, what do you do?
  - a. Go meet them by yourself without telling anyone
  - b. Give them your address and invite them to your house
  - c. Have an adult come with you to go meet them
  - d. Pick them up and bring them back to your house
  
2. Someone that you have only talked to on the internet asks you to send them a picture of you. What do you do?
  - a. Send them a picture of your house
  - b. Don't send a picture
  - c. Send a picture of you
  - d. Ask for their picture too
  
3. Someone that you really like pushes you and calls you mean names every time you say hi to them. You have repeatedly told them to stop and the next day they push you again. What would be the best thing to do next?
  - a. Get help by talking to someone you trust
  - b. Do nothing because you really like them
  - c. Push them back even harder
  - d. Tell them to stop again
  
4. To protect yourself when using online dating apps you...
  - a. Pay attention to your location settings
  - b. Not share a lot of personal details
  - c. Share your location with the person you are talking to
  - d. Only a and b
  
5. To have healthy relationships with people you care about, you and your partner should...
  - a. Control one another and always need the other one around
  - b. Be nice to each other and talk to each other
  - c. Pick fights with each other and lie to one another
  - d. Use physical violence so that you get what you want

6. How can online dating be dangerous?
  - a. Online dating is completely safe
  - b. You don't know if the person you are talking to is real
  - c. You can get your personal information stolen if you share too much
  - d. Both b and c
  
7. You are using an online dating app and you meet someone you find very attractive and nice. This person asks you for your credit card number and address. What do you do?
  - a. Give them your credit card number and address so they will go on a date with you
  - b. Do not give them your personal information and talk to an adult
  - c. Give them your address only
  - d. Tell them that you do not have a credit card but you will meet with them to give them money
  
8. After talking to your crush for about a month, you finally decide to tell them you like them and would like to go on a date. Your crush tells you that they are not interested in you and do not want to go on a date. What do you do?
  - a. Be understanding and walk away to take a break
  - b. Ask them why they don't like you
  - c. Find them on Facebook later that day and message them to go on a date
  - d. Beg them to give you a chance
  
9. You are building a profile for an online dating app. What should you not include on your profile?
  - a. A picture of you and your name
  - b. Your address and your phone number
  - c. Your name and the city you're from
  - d. Your hobbies and interests
  
10. You have a huge crush on someone you work with but are too nervous to talk to them in person. What do you do?
  - a. Try to compliment them, say "hi", or ask them about their day
  - b. Find their online profile (Facebook, LinkedIn, etc.) so you can message them without talking in person
  - c. Follow them around until they talk to you first
  - d. Stare at them until they notice you

## Appendix G

## Workshop 3 Pre- and Post-Test Questions

Initials \_\_\_\_\_

1. You have an online friend that you have never met. If they say they want to meet you in real life, what do you do?
  - a. Go meet them by yourself without telling anyone
  - b. Give them your address and invite them to your house
  - c. Have an adult come with you to go meet them
  
2. Someone that you have only talked to on the internet asks you to send them a picture of you. What do you do?
  - a. Don't send a picture
  - b. Send a picture
  - c. Ask for their picture too
  
3. Someone that you really like pushes you and calls you mean names every time you say hi to them. You decide to...
  - a. Get help by talking to someone you trust
  - b. Do nothing because you really like them
  - c. Push them back and call them names
  
4. To protect yourself when using online dating apps you...
  - a. Should pay attention to your location settings
  - b. Should not share a lot of personal details
  - c. All of the above
  
5. To have healthy relationships with people you care about you and your partner...
  - a. Control one another and are completely dependent on each other
  - b. Treat each other with respect and solve problems together
  - c. Pick fights with each other
  
6. You give Sarah a hug and she pushes you away. What do you do?
  - a. Try to hug her again
  - b. Yell she is mean
  - c. Say sorry and keep your hands to yourself



7. Someone puts their arm around your shoulder but you do not want them to. What do you do?
  - a. Let them
  - b. Ask if you can have some space
  - c. Push them away
  
8. You see your crush in the middle of a busy store. Your crush smiles at you and waves hello. What do you do?
  - a. Tell everyone that your crush is your boyfriend/girlfriend
  - b. Say hi and ask your crush how he/she is doing
  - c. Ignore your crush and walk away
  
9. You want go up and talk someone you like. How do you approach them?
  - a. Approach them from behind
  - b. Approach them and get very close
  - c. Approach them from the front and stay at least an arm's distance away
  
10. What are some things you can talk to your crush about?
  - a. Activities and music that you like
  - b. What city you are from and what city your crush is from
  - c. All of the above