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After Skilled Therapy: A Curriculum for Functional Social Interactions

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Introduction:

A curriculum was created for individuals with developmental disabilities who no longer qualify for skilled speech-language services at the Ecklemann-Taylor Speech & Hearing Clinic. The first portion of the paper includes the terms of eligibility within the clinic, reasons for dismissal, and the population that can potentially benefit from this curriculum. The second part of the paper includes an extensive literature review and the empirical base of the components for the curriculum which provide extra support. Finally, the guide to the curriculum itself is attached.

Reasons for Eligibility:

Individuals seeking speech and language services at the Ecklemann-Taylor Speech & Hearing Clinic must meet specific eligibility requirements to receive medically necessary assessment and intervention services. Service providers in the Ecklemann-Taylor Speech & Hearing Clinic consider 'medical necessity' when making service delivery decisions. The American Speech-Language-Hearing Association (ASHA) defines medically necessary as "health care services that a physician would provide to a patient for the purpose of evaluating, diagnosing, or treating an illness, injury, disease, or symptoms and that are within the generally accepted standards of medical practice," (ASHA, para. 1, 2018). Services delivered to individuals must be deemed medically necessary; evaluation, diagnosis, and treatment services that address communication impairments associated with disorders or co-occurring complications may meet the standard of 'medically necessary.' These individuals continue to require skilled-therapy treatment when they are continuously meeting goals set towards their communicative abilities (i.e., typical communicative ability in regard to comparative age norms; Documentation, 2018).

Reasons for Dismissal:

As stated by ASHA, discharge from speech and language therapy services typically occurs when the speech, language, and/or swallowing condition is corrected with or without compensatory strategies. Specifically, dismissal from services is appropriate when "The individual's speech, language, communication, and/or feeding and swallowing skills no longer adversely affect the individual's educational, social, emotional, vocational performance, or health status" (ASHA, par. 12, 2004).

Dismissal may also be appropriate at times other than previously described and typically involves individuals with moderate-severe communication disorders. Depending on the setting and/or payment source, speech-language pathologists must make difficult decisions in cases where "treatment no longer results in measurable benefits" (ASHA, para. 4, 2004). This specific dismissal criterion commonly affects the population of individuals who are developmentally disabled. Additionally, per ASHA's policies regarding discharge from speech-language pathology services, individuals are candidates for dismissal from skilled services once "the goals and objectives of treatment have been met" or "the individual has attained the desired level of enhanced communication skills" (ASHA, para. 12, 2018).

Population

Individuals with developmental delays often meet the requirements for the discharge policies from skilled/medically necessary speech and language therapy services. Individuals with Autism Spectrum Disorder, Down Syndrome, Fragile X, and Fetal Alcohol syndrome are the most common populations under the umbrella terms of *intellectual disability* and *developmental disability* (The Arc, 2018). These individuals have a different primary diagnosis other than speech and language impairment, and will have persistent communication challenges

throughout their lifespan. At some point in a treatment period, providers may determine that insufficient or no progress is evident; providers would then decide that the individual is no longer eligible for medically necessary skilled speech-language services (ASHA, 1989).

Caregiver Advocacy

Despite dismissal guidelines, however, the International Classification of Functioning, Disability, and Health (ICF), a person-centered framework describing considerations associated with a comprehensive and systematic assessment of health and care provides other considerations. For example, patients that are active in the environment have better health outcomes compared to those that are not. This framework provides functional needs in speech and language within the descriptions of health and overall goals (ASHA, 2018). Additionally, parents and caregivers often report a desire for continued service availability for their children despite the fact they are no longer eligible for skilled therapy services. The need for transitional services between receiving skilled therapy and discharging from services is reported as a needed service by parents and caregivers of individuals at the Ecklemann-Taylor Speech & Hearing Clinic. This raises a dilemma; speech-language pathologists (SLPs) must be responsive to parents and caregivers who are advocating for their children and ICF considerations, yet must follow discharge protocols rendered by various insurance companies and programs. The critical question is: How can individuals with developmental delays continue receiving services per parent request without providing skilled therapy? Service providers at the Ecklemann-Taylor Speech & Hearing Clinic report that parents believe their children still need intervention aimed at social interaction and independent living.

Camille Benning has completed a thorough literature analysis regarding populations in need of specific instruction and task analysis regarding social cognition. Kylie Crews has

integrated the importance of functional application of social cognition in activities of daily living. Together, they have created a curriculum that will serve as a transitional opportunity from skilled therapy services for individuals with developmental disabilities. According to Dr. McLaughlin & Wehman. (1992),

> The term 'transition' conjures up many different meanings. Because transition typically denotes change or movement, individuals with developmental disabilities undoubtedly experience many different transitions during their lifetime. Transition can include movement from one education setting to another or from one stage in life to another (p. 131).

Intended Audience to Implement Manual

The intended audience is graduate clinicians who work with individuals with developmental disabilities deemed ineligible for skilled speech-language services at the Ecklemann-Taylor Speech & Hearing clinic. This transitional curriculum provides structured communicative practice opportunities in an unskilled service. In addition, the graduate clinicians are able to provide a safe communicative environment without billing insurance and providing skilled therapy, but rather provide unskilled therapy (ASHA, Documentation). This program, *A Curriculum for Functional Social Interactions,* serves as an answer to the parents' concerns, and to the dilemma faced at discharge by clinical educators and graduate clinicians. It is imperative that clinicians who use this curriculum have an understanding of their client's social, emotional, and cognitive skills prior to implementation.

The term "developmental disability" is used as an all-encompassing term for the purposes of the curriculum. Prior to the term *developmental disability,* the word *mental retardation* was used to describe the challenges of individuals who struggled with intellectual capacity and

adaptive behavior (McLaughlin & Wehman, 1992). Terminology changed under President Barack Obama's administration when Rosa's Law was passed. This term "mental retardation" removes from various contexts of federal law (Rosa's Law, 2010). This change in terminology should be taken into consideration when referencing resources published prior to 2010. According to the American Association of Intellectual Disabilities and Delays, "an intellectual disability is a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability originates before the age of 18" (AAID, para. 1, 2018). The disability that occurs prior to 18 years old is labeled as the developmental delay, whereas the intellectual disability is part of the overall developmental delay.

Social Cognition:

Social cognition includes skills essential for social interactions and participation in daily life. Theory of Mind (ToM) and executive functioning skills are included within the umbrella term of social cognition. Together, these different aspects correspond to the social understanding thought process (ASHA practice portal).

Research has found that deficits in social cognition affect a large majority of individuals with developmental disabilities. Social cognition skills are needed to develop and sustain relationships, obtain employment, and complete various activities of daily living (Hillier, et al., 2007).

ToM refers to individuals' ability to recognize their own thoughts and emotions, the thoughts and emotions of other people, and to understand that their thoughts and emotions can differ from those of others. Many social cognitive skills require ToM because social cognition requires an individual to acknowledge that their own thinking and beliefs may differ from someone else's. The concept of ToM is abstract and individuals with developmental disabilities often struggle with this domain (Flavell, 1999).

Executive functioning skills are also needed for social cognition. Deficits in executive functioning that impact social cognition include: impairments in working memory, cognitive flexibility, goal-oriented thinking/planning, attention, learning, processing speed, and problem solving (Corbett, Constantine, Hendren, Rocke, & Ozonoff, 2009). Studies show that there is a correlation between daily living skills and executive functioning. Executive functioning skills are used within daily living skills (Pugliese, et al., 2016).

Based on the literature review and concepts from Michelle Garcia Winner's *Think Social!* (2005), the following topics are considered the most important and functional aspects of social cognition:

-entering and exiting conversations

-active listening

-topic maintenance

-follow-up comments and questions

-repairing conversations

-interrupting

-code switching

-summarizing

-problem solving

-judgements

-emotions

-perspective taking

-figurative language

-apologizing

-compliments

Interventions for Social Cognition:

Social Stories:

Social Stories were first developed by Carol Gray in 1993 to use with individuals with autism. Social Stories are an individualized tool used to explain social context and to suggest appropriate responses, yet are not used as skilled instruction when implemented alone; as they

are embedded into skilled practices. Different concepts and social behaviors are often described within Social Stories. Concepts and situations are explained in these stories in a way that can be better understood by the individual. Social Stories serve as a visual tool and do not require 'client-clinician' interaction, but do require the clinician to have an understanding of the client's specific needs. Gray created Social Stories as a way to present social information and situations in an easily understood format. This format allows individuals to focus more of their attention on participating in the activity rather than to focus attention on processing new instruction (Gray & Garand, 1993). Most research about Social Story effectiveness examines replacement of unacceptable social behaviors with more acceptable ones by children with autism. Researchers Thiemann and Goldstein (2001) found that social stories were beneficial in improving social communication skills of students with autism. Targeted social behaviors became more consistent within all participants following treatment involving social stories. Information regarding generalization of the social skills was not reported by the authors.

Few investigations of social studies have been conducted with adults with other types of disabilities (Ivey, Heflin, & Alberto, 2004). Even though Social Stories were developed for and used primarily with individuals with autism, individuals with other developmental delays would also benefit through this instruction because individuals with developmental disabilities often struggle with social interaction skills (Gray & Garand, 1993).

There are basic guidelines to follow when writing a Social Story (Gray & Garand, 1993). Stories are written in first-person language from the client's perspective and comprehension level. They should be written in first person from the student's perspective and at a client's comprehension level; Stories incorporate meaningful vocabulary and concise statements. Stories use descriptive, directive, and or perspective sentences. 'Wh' questions are answered within

'descriptive' sentences. These sentences often begin Stories. 'Directive' sentences include the appropriate response. Lastly, 'perspective' sentences include statements of others' feelings or reactions. Gray states that a ratio is used between these types of sentences to assure that the Social Story does not direct a behavior, but rather describes a situation. It is recommended that a ratio or two to five perspective or descriptive sentences to every zero to one directive sentence be used.

Video Modeling:

Video modeling is frequently used to teach desirable behaviors to individuals with developmental disabilities. This type of modeling provides visual and auditory stimuli, and is becoming more common as technology continues to advance. Individuals watch a video of a desired behavior; the video models all the steps needed for a certain behavior or outcome. The video is viewed before explicit instruction of the desired outcome. Video modeling allows individuals to see what they are supposed to do, when they are supposed to do it, and why they need to do it. Recently video modeling has been used to teach social skills (Nikopoulos & Keenan, 2006).

A research study conducted by Stauch, Plavnick, Sankar, and Gallagher (2018) used video modeling with a group of adolescents with autism or intellectual disability. The researchers created three to five videos for each skill targeted in the group. This was done to "vary the models, social partners, materials, and vocal statements within videos targeting the same social perception skill. (p. 5)" This study concluded that video modeling was beneficial in a group setting. Outcomes regarding generalization were not as conclusive. Half of the participants in this study did not generalize the skills targeted in the intervention stage. Further

research is needed to provide more information concerning generalization of skills using video modeling (Stauch, et al., 2018)

Combined Video Modeling and Social Stories:

The strategies of video modeling and social stories are not only beneficial when used individually, but are beneficial when used in a combined format. The combined use of video modeling and social stories provides a concise, concrete visual of social skills that is easy to understand and is perceived as entertaining to individuals with various disabilities (Andrews, 2004). Results from a study completed by Gul (2016) showed that an intervention utilizing both video modeling and social stories to teach social skills to young adults with various intellectual disabilities was beneficial. Specifically, this study found that young adults (ages 20-25) with intellectual disabilities need explicit and structured instruction of social skills. This population struggles to learn and use social skills by observation alone in daily life. The author stated that further research is needed regarding generalization of skills learned through the combined intervention (Gul, 2016).

Interactive WhiteBoards:

Interactive whiteboards (IWB; e.g., Smartboards) facilitate increased participation and engagement when used during teaching for individuals of all abilities (Drigas & Papanastasiou, 2014). Information and lessons can be presented in an interactive manner through an IWB. Interactive activities are often preferred over lecture-based activities as they incorporate multimodal aspects. IWBs are multimodal in that they provide visual, tactile, and kinesthetic supports. Individuals with developmental disabilities benefit greatly from these specific features. Overall, these individuals are more motivated to participate in activities and tasks that facilitate active engagement (Harris & Reid, 2005). A person is more likely to stay attentive to something

that is perceived as enjoyable (Goldsmith & LeBlanc, 2004). Group instruction is another strength when using IWB. Compared to other assistive technology and teaching methods, IWBs allow for group instruction which promotes mutual engagement among group members (Swan, Schenker, & Kratcoski, 2008)

Individuals with developmental disabilities often display deficits in one or all aspects of language and/or attention. Given these deficits, IWBs are beneficial as they provide content visually. Individuals are able to process instruction and content more efficiently and effectively when they are presented in a visual manner (Tissot & Evans, 2003). Receptive language is supported by increased comprehension through concrete visual content. Expressive language is supported by provision of visual choices to assist in initiation and retrieval (Pennington, 2010).

The interactive nature of IWBs allows the incorporation of motor movement in activities. Movement is required to approach the IWB and to manipulate items on the IWB. Recent research has connected motor movement and learning. Jensen (2005) stated that "movement can be an effective cognitive strategy to (1) strengthen learning, (2) improve memory and retrieval, and (3) enhance learner motivation and morale" (para. 2). Anatomical evidence suggests that the cerebellum, associated with motor control, is connected to the areas of attention, spatial perception, and memory through different pathways. The cerebellum is also connected to multiple sensory areas in the brain in order to carry out a task involving motor movement. With motor movement, multiple pathways and areas of the brain are activated, corresponding to increase in brain activity. More neural networks are created with more brain activity which correlates to increased learning. When manipulating items on the IWB screen, cross-lateral movement is used. This type of movement involves arm and leg crossover at midline. Both

brain hemispheres must connect to each other when crossing over midline leading specifically to multiple pathways, more brain activity, and more learning (Jensen, 2005).

Modeling:

Modeling has shown to assist in teaching various skills to children. Clinician modeling has been used to differentiate between appropriate and inappropriate behaviors and responses. (Appleton & Reddy, 1996). The Skillstreaming program incorporates modeling within its' training approach. Modeling allows an individual to observe the desired outcome in an attention-getting way. It is beneficial to model two examples of each skill; a negative example and positive example. This allows the observers to witness an example of what happens when the targeted skill is not used and what happens when the targeted skill is used. Ending with the positive example reinforces the positive outcome of using the targeted skill (Goldstein & McGinnis, 1997).

Activities of Daily Living:

As previously mentioned, social cognition is a critical component for the completion of activities of daily for all individuals. In individuals with cognitive disabilities (i.e., developmental disabilities and intellectual disabilities), the ability to complete activities of daily living can cause challenges that do not apply to typically developing individuals. According to researchers Sheppard and Unsworth (2011), "young people with disabilities need opportunities to participate in and perform everyday activities as independently as possible if they are to become self-determined individuals," (pg. 393). However, an essential component in successful completion of intervention is having the opportunity to apply social cognitive skills. Half of the current curriculum, *After Therapy: A Curriculum for Functional Social Interactions*, targets application of the social cognitive skills presented through activities of daily living.

Although the range is wide, individuals with typical development meet various milestones within an established window of time. During these milestones, individuals display changes in social/emotional, language/communicative, cognitive, and physical developmental aspects such as learning to walk, changing from bottle- and spoon-feeding, etc. For example, a child at six months typically responses to their own name and displays joint attention (Center for Disease Control, 2017). As individuals with developmental delays age, differences in behavior and growth are apparent by the age the milestone is reached and how it manifests. For example, a child with a developmental delay may walk at a later age, talk at a later age, etc. However, these differences can impact children into adulthood. Differences are seen later, in the following areas: self-care, cognitive-communication, and living arrangements (McLaughlin et al., 1992, p. 4).

Self-Care

Self-care skills are typically categorized into different groups, such as eating and dressing/grooming (McLaughlin et al., 1992). The component of eating includes choosing foods with the necessary nutritional value depending on the individuals' diet, maintaining a clean environment during food-related activities, and using appropriate social skills when dining in the community (McLaughlin et al., 1992, p. 4). Dressing and grooming includes choosing appropriate clothing, cleanliness, and maintaining one's overall appearance. Although teaching self-care skills is not an objective of our after-therapy curriculum, it is a critical aspect of these individuals' lives. These skills (e.g. following recipes, sorting laundry, etc.) are embedded into the activity of daily living portions of the curriculum.

Learning & Cognition

Receptive language is the ability to comprehend speech and language from communicative partners, literature, and other sources. Expressive language is an individual's ability to communicate their needs with using speech, an alternative and augmentative communication (AAC) device, etc. Although speech-language intervention is not the primary focus of this curriculum, it is the responsibility of the group leaders to facilitate a safe and enriching communicative environment.

Learning and cognition entails the ability to gain new skills and generalize them outside of the therapy room. According to McLaughlin et al. (1992):

> Individuals with [intellectual disabilities] are slow to learn new skills, do not grasp concepts well at symbolic or abstract levels, are inefficient learners, and do not readily transfer learned skills to new settings or when different materials are required (p. 8).

The intent of our program is not to teach new skills, but to provide more opportunities for application of the cognitive skills through activities of daily living. In addition, our program is intended to provide a safe-space for individuals to demonstrate and apply learned behaviors.

Living Arrangements

A critical component in a curriculum for adults with developmental and intellectual disabilities is the ability to live as independently as possible and to complete activities of daily living independently. Working on social skills and activities of daily living is more successful when individuals have the opportunity to apply them. "In addition, practicing activities of daily living can provide these individuals opportunity to use other cognitive, academic, and language skills" (McLaughlin et al., 1992). The following table from *Developmental disabilities: A Handbook for Best Practices* provides a scaffolding model that can be used to modify the social cognitive principle or activity of daily living depending on the individuals' needs and abilities.

Model for Selection of Instructional Options	
Instructional Options	**Decision Questions**
Option 1: Teach the Task	1. Can the task be divided into smaller steps that are easier to master? 2. Does the learner have the capacity to complete the task as it is typically performed?
Option 2: Adapt the Task	1. Will adaptation of the environment facilitate task completion? 2. Will adaptation of the steps facilitate task completion? 3. Will adaptations to the learner (prosthetics) facilitate task completion?
Option 3: Support the Task	1. Have all other options been considered? 2. Will support be provided in the least intrusive environment?

Model for Selection of Instructional Options. McLaughlin et al., 1992, p. 17.

Modifications should be made based on individuals' abilities. Higher functioning individuals should be given more independence whereas lower functioning individuals may need more assistance. According to McLaughlin (1992),

> "skills can be systematically taught to be performed in the same manner that a typical learner would perform them. The key to effective instruction is to provide only the level of assistance needed by the learner to complete the task successfully" (p. 16).

Another study discussed the ability of individuals in a residential facility and the implications for creating a group targeting social skills. Giuliani and El Korh (2016) created a social skills group for adults living with intellectual disabilities. These authors addressed the difficulties that this population faces, as well as the effects of co-occuring psychiatric co-morbities (i.e. anxiety disorders, personality disorders, attention-deficit hyperactivity disorder, autism spectrum disorder, and addictive disorder). A few of the interpersonal challenges that individuals with developmental disabilities face include lack of social skills, a poor perception of his or her own skills, and a poor perception of social-interpersonal reality (Giuliani & El Korh, 2016, pg. 1).

Giuliani & El Korh (2016) targeted social skills through a variety of activities that ranged from basic to more advanced skills. The following social skills were targeted through activities of daily living when provided social situations:

I. Basic Social Skills
    A. Take care of one's appearance
    B. Listen
    C. Start a conversation
    D. Introduce oneself

E. Answer the telephone

F. Say thank you

II. Advanced Social Skills

A. Apologize

B. Give and follow instructions

C. Request and offer help

D. Share activities, materials...

III. Recognition and Expression of Emotions

A. Identify one's own emotions

B. Identify other people's emotions

C. Express feelings, emotions

D. Respond to teasing

E. Recognize and use humor, irony

F. Accept failure…

IV. Self-Affirmation

A. Know how to formulate a refusal

B. Know how to accept a refusal

C. Know how to make a request

D. Know how to make a criticism

E. Know how to solve a problem

V. Friendly & Affective Relationships

A. How to have friends

B. How to undertake a romantic relationship

It should be noted that Giuliani & El Korh (2016) instituted this therapeutic approach in a community psychiatric unit. Ten monthly sessions of approximately 90 minutes each were offered over a four-year time span. During the initial group meeting, members were introduced to social skills and intrapersonal skills. The next sessions included role play targeting the previously mentioned social situations. Psychopathological evaluations were used to measure data and revealed that group therapy in adults with intellectual disabilities was effective. Overall, this study provided evidence that there is a correlation between group therapy intended for social skills and application through activities of daily living in adults with intellectual disabilities.

An additional study provided strong evidence that programs that target activities of daily living can improve levels of self-determination in individuals with intellectual and developmental disabilities (Sheppard & Unsworth, 2010). Researchers conducted a study in an educational residential unit in Australia that included individuals between the ages of 5 and 18 with mild to severe intellectual disabilities. These individuals completed tasks based on self-care, life management skills, recreation and leisure activities, and involvement in social and vocational skill activities. The structure was set up as a "household" and the individuals followed a structured schedule that followed the previously mentioned tasks regarding activities of daily living. One of the methods of data analysis included Goal Attainment Scaling (GAS). Pre- and post-program scores on the GAS indicated improvement over the course of the program, (Sheppard & Unsworth., 2010). Although a full-time residential living opportunity is not available to potential members of the current program, a consistent schedule including activities of daily living has been shown to provide positive impact on individuals with intellectual disabilities.

Overall, research has shown that individuals with intellectual and developmental disabilities can benefit from programs that allow them to apply a variety of social cognition skills through activities of daily living. The comprehensive literature review provided substantial support for the proposed curriculum design for the program titled “After skilled therapy: A curriculum for functional social interactions.

User Guide:

Curriculum Structure:

A Curriculum for Functional Social Interactions is comprised of fifteen different lessons targeting specific components of social cognition and a variety of opportunities of application of activities of daily living. The following elements are included within each week's lesson: materials needed, objective and procedures of each lesson, a social story, brainstorm activity, role-play example, and two opportunities to apply the lessons through activities of daily living. Clinicians and group members will work together during the first half of the session for the social cognition section and will separate into stations around the room during the second half of the session for the activities of daily living.

Fifteen social stories correspond to the fifteen different lessons within the curriculum. Social stories are referred to as 'social stories' instead of 'Social Stories' within the curriculum because they do not follow Carol Gray's format completely. Each session opens with a social story to introduce the social cognitive topic. A modified social story template is used to visually present the target social skill using a simple language structure that is easy to understand and meaningful. The social story is displayed on a IWB and printed for each group member. The social stories are formatted to fit on one page. Simple visual representations are used with each statement to make each story more accessible with concrete visual content. The clinician is to read the social story in an interactive and positive tone to promote participation. Social stories are included in each week's materials in Appendix A.

A brainstorming activity follows the social story every week. Brainstorming activities utilize the IWB and were created using PowerPoint. Brainstorming activities allow for the targeted skill to be primed and manipulated. The brainstorming activities involve presenting the

targeted skill in a visual way that can be physically manipulated on the IWB and at the group member's seats. The brainstorm activity outline and manipulatives are printed for each group member. The clinician will ask group members to come to the IWB one at a time to take turns sorting the activity. As each group member takes a turn at the IWB, the other group members will complete the hard copy version of the activity. This promotes engagement and attention to task for all group members.

Following the social story and brainstorming activity, the clinicians will role-play a poor example of using the target social cognitive skill followed by a good example of using the target social cognitive skill. After each role play demonstration, the clinicians will ask the group members to rate the example as good or bad (thumbs up or thumbs down). Depending on the group member's expressive language, the clinician will ask why the group members voted one way or the other. Role play scripts are included in each week's materials in Appendix A.

Activities of daily living are represented through a variety of materials available through the ISU Speech & Hearing Clinic materials center (e.g. Just for Adult Photocards, utensils,). These materials are commercially available for any interested person to purchase. Individuals will complete activities of daily living at different stations throughout the room. Stations will be used to promote participation amongst all group members. This strategy will also be used to allow for the clinicians to provide more individualized feedback for each group member. The lesson of the day will be the focus for the activity of daily living. For example, individuals can utilize active listening skills while following a recipe that is being read by the group leader. The curriculum components including objectives, procedures, and social story components are adapted from Michelle Garcia Winner's *Think Social!* and Arnold P. Goldstein's *Skillstreaming the Adolescent: New Strategies and Perspectives for Teaching Prosocial Skills.*

Principles of Instruction:

The creators have implemented the curriculum and used the following principles throughout the framework/design of the curriculum: differentiated instruction, visuals, repetition, concrete instruction, and the gradual release of responsibility.

Visuals are incorporated throughout each lesson within the curriculum. Visually cued instruction has been shown to assist individuals with various disabilities in learning. Researchers have completed studies examining different behaviors, social behavior included, where the use of visuals has aided individuals in learning. This type of instruction uses visual cues (written words or pictures) to prompt or support communication. Specifically, these features complement the strengths of the populations that the proposed curriculum serves. Visuals also provide a recognition cue that aids recall abilities. An example of a visual aid used during the proposed curriculum is the use of visual photo cards to prime the group members of an activity (Quill, 1997).

Simple and concrete language was used throughout instruction of the curriculum. This type of language was used at all times when explaining concepts and/or giving examples during group. Differentiated instruction recognizes learner's level of performance and delivers content in response to noted individual differences. This type of instruction allows for individuals to receive different methods of learning in order to effectively learn despite any differences in ability. Differentiated instruction allows for an individual's strengths to be highlighted and to provide extra support for their limitations (Inglebret, Banks-Joseph, CHiXapkaid, & Pavel, 2016). This principle was used throughout implementing the curriculum. Different supports were given to individuals that needed them. For example, a low-tech AAC board was used with a client to promote participation and inclusion.

A modified framework of the gradual release of responsibility was used throughout the structure of the curriculum. "The gradual release of responsibility instructional framework purposefully shifts the cognitive load from teacher-as-model, to joint responsibility of teacher and learner, to independent practice and application by the learner" (Pearson & Gallagher, para. 1, 1983). Each lesson began with focused instruction (social stories) which establishes the purpose of the lesson and is considered part of the "I do" stage. The "we do" stage includes the brainstorming activities that are considered guided instruction. Collaborative learning and independent learning ("you do it together" and "you do") were combined during the tasks of activities of daily living. Collaborative and independent learning allow group members to work together and to apply the targeted skills with increased independence (Fisher & Frey, 2013).

Conclusion:

Reflections:

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Modifications were made throughout the implementation of the curriculum with clients. Clients within this group had a wide variety of abilities. The authors had to use more simple, concrete language and examples than initially expected. The authors had to use more simple and concrete language and examples than what we initially expected.

Video modeling was discontinued from the social cognitive portion of the curriculum. Despite extensive research regarding the benefits of this strategy with this population, the authors found it ineffective for this specific group. The various short clips taken from Youtube and Powtoon were not concrete enough for this specific group. It was challenging to find video clips that were age appropriate and concrete. The clinicians highlighted and placed more emphasis on their role modeling to show a 'poor' and 'good' example instead of using video models of each skill targeted.

When first implementing the curriculum, the authors noted that there was a loss of engagement and attention to task when group members were taking turns at the Smartboard during the brainstorming activities. In an attempt to compensate and promote participation, the authors began printing out the brainstorming activity outline and cutting out the activity manipulatives. Group members were asked to follow along at their seats to complete the activity as they still took turns at the Smartboard.

The topics for each week were reordered multiple times in an attempt to best serve the group. Topics were reorganized to prioritize the more functional communication topics first and to end with more abstract concepts at the end of the curriculum. This also allowed the group

members to understand what was expected of them during each session. The topic of 'narratives' was taken out due to its similarities with the topic of 'summarizing'. The authors believed that there were differences between summarizing and narratives, but those key features were slight. We determined that a more functional topic, compliments, could replace narrative to best serve the group.

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Reflections from the clinical standpoint of the creation of this curriculum include modification of the topics, creation of the activities of daily living, and finally the language and vocabulary used during the weekly session. The initial list of topics included a few concepts that could be considered "too abstract" depending on the individual's ability. For example, the difference between "narratives" and "summarizing" can be considered challenging due to the similarity between the two. For individuals with intellectual and developmental disabilities, it can be challenging to find the difference between two concepts if not clearly different. In addition, the notion of utilizing "concepts" and "abstract language" with this population was challenging, because application of skills required thorough comprehension of the desired behaviors. Overall, this process provided continuous opportunities to reflect and modify the curriculum.

Implications:

Implications from this independent study include future research regarding additional populations and modifications. A large portion of the literature review for this curriculum development involved research with children and adolescents diagnosed with ASD. The authors believe that this research can be generalized to adults with various developmental disabilities because there are similar areas of weaknesses across the populations, especially regarding social

interaction. There is a need for more research on interventions targeting functional social cognition skills of adults with intellectual and developmental disabilities. Further information is needed on other specific populations (i.e. Down Syndrome, Fragile X Syndrome, Cerebral Palsy, Fetal Alcohol Syndrome).

In addition, modifications for co-occurring disorders should be addressed and researched as well. Modifications for lower to higher functioning individuals with developmental and intellectual disorders is necessary, as well as visual modifications for individuals with visual impairments and auditory modifications for individuals with hearing impairments. Further review is also needed to research the effectiveness of this curriculum as perceived by stakeholders: clinicians, parents, and clients.

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