

PROGRAM EVALUATION OF LIFE SKILL CURRICULUM FOR YOUNG ADULTS
WITH AUTISM SPECTRUM DISORDER

by

Sandra J. Schmiedeknecht

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the requirements for the Degree

Doctor of Education

School of Behavioral Sciences

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ABSTRACT

The purpose of this phenomenological study was to discover the effectiveness of curriculum specific to young adults with autism spectrum disorder (ASD) within a specific community. This paper supports a program evaluation of a life skill curriculum compiled, taught and refined, and specifically designed for young adults with ASD. Young adults with ASD have few resources for a successful transition from adolescence to young adulthood. There is a diminutive amount of literature evaluating and providing evidence that teaching a life skill curriculum is effective in enhancing success in the transition for young adult with ASD. There is a great deal of information and research on the effectiveness of early treatment but a considerable deficit is found in those clients who did not receive the diagnosis of ASD until they were in late adolescence or early adulthood. The population of young adult clients ranges from low, including non-verbal clients, to high functioning. It is the author's hope to contribute to the gap in the literature with programming and resources to meet the needs, support growth, and the opportunity for reaching the highest level of independence in the ASD population. The growth demonstrated by the clients in the life skill curriculum demonstrated an average of two categories. With the direct supervision and support by the mentors and Life Skill coaches, the clients experienced the feeling of choice and autonomy as each worked toward some form of more independent living.

Keywords: young adults with Autism Spectrum Disorder, life skill curriculum, community based learning, neurofeedback, teaching, mentor, Life Coach, transitions to young adulthood

Dedication

This manuscript is dedicated to my father, Murray G. Dearborn. He was my best friend, cheerleader, encourager, and always saw the best in others. He was a godly man that demonstrated a love of Christ, integrity, resilience, and determination, without regard to the challenge. I made him a promise at his request to obtain my doctorate. He passed away immediately following the first semester of this program. With a strong faith, reliance on Christ, my Savior, I have been able to move past the immense grief and continue fulfilling the promise made to my father, motivating the completion of this program.

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I am grateful for the strength and tenacity Jesus gave me through some of the most difficult times in my life during my doctoral program. It was through His grace and blessings I maintained focus to complete my classes and dissertation with the assistance and encouragement of the awesome professors He provided.

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Dr. Garzon was my first professor as I began this journey. He was an invaluable resource and supported all of us in the Flagship Class (2015–2016). He always provided positive and meaningful feedback, and I credit him with my success in completing classes despite difficult personal times. His prayers and grace were always of great comfort.

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List of Abbreviations

Activities of Daily Living (ADL)

American Psychiatric Association (APA)

Americans with Disabilities Act of 1990 (ADA)

Attention-Deficit/Hyperactivity Disorder (ADHD)

Autism Spectrum Disorder (ASD)

Cabin Mountain Living (CML)

Centers for Disease Control and Prevention (CDC)

Community Based Instruction (CBI)

Generalized Anxiety Disorder (GAD)

Nonverbal Learning Disorder (NVLD)

Obsessive-Compulsive Disorder (OCD)

Pervasive Development Disorder (PDD)

Posttraumatic Stress Disorder (PTSD)

Reactive Attachment Disorder (RAD)

Test Assessing Secondary Completion (TASC)

Transition, Education, and Coaching Center (TEC)

CHAPTER ONE: INTRODUCTION

Overview

Autism spectrum disorder (ASD) is a developmental disability defined by diagnostic deficits across multiple contexts (Centers for Disease Control and Prevention [CDC], 2017; American Psychiatric Association [APA], 2013a). The persistent and lifelong deficits in ASD include social communication and interaction, repetitive patterns of behavior, activities, and/or interests along with unusual behaviors such as repetitive movements, sensory sensitivities, and a focus on routine without any variation. Common behaviors associated with ASD are the inability to make or maintain eye contact, inability to understand non-verbal communication, difficulty in developing relationships, and the inability to behave within acceptable social boundaries (APA, 2013b; CDC, 2017). The ASD symptoms limiting and impairing everyday functions are present in early childhood. However, symptoms may vary in severity according to the child's innate characteristics, chronological age, developmental level, environment, and the age of initial diagnosis and initiation of treatment (APA, 2013b).

Background

History of Autism

The landscape of becoming an adult has changed over the years and today, there is the group of "emerging young adults," ages 18–24, and the "emerging adults," ages 25–30 years. Arnett (2015) has researched the topic of emerging young adults to emerging adults for over 20 years. He found five distinct, but not unique, challenges for the two groups of emerging adults: identity exploration; stability in love, employment, and living arrangements; self-focus; feeling in-between; and optimism and the vast possibilities (Arnett, 2015, p. 8). The two groups, emerging young adults and emerging adults, are diverse periods in the life cycle. This time is

characterized by exploration and change as they develop their worldviews, choices of employment, and increased in stability in love relationships (Arnett, 2015). These challenges are not unlike those of young adults and adults with ASD.

Many older individuals today, with behaviors found in people with ASD, were thought of as peculiar or odd growing up, and now there are individuals in their 40s and older who are caught in the void of having not been diagnosed correctly, or at all (CDC, 2017). Prior to the early 1980s, the majority of children with undiagnosed ASD often demonstrated what was thought to be other neurological or behavioral challenges. These children were often found in institutions until they aged out or the facilities closed. Deinstitutionalization of state-operated institutions occurred, in part, when state and federal funds were reallocated from institutions to the integration of patients into the community and outpatient mental health resources (Pow et al., 2015). Interventions were not generally available for this population of emerging young adults who would have been 3 years old in the 1980s. With the increase in undiagnosed children with ASD, interest and studies became more prevalent.

Historically, in the 1930s and 1940s child psychiatrists described children with ASD symptoms as psychotic, borderline, schizophrenic or having “special sensitivities” (Kestenbaum, 2008). In 1987, the *Diagnostic and Statistical Manual of Mental Disorders–Third Edition, Revised* (DSM-III-R) was recognized as a diagnosis however, it was not until 1994 when the *Diagnostic and Statistical Manual of Mental Disorders–Fourth Edition* (DSM-IV) published diagnostic criteria formalizing three types of autism to include Asperger’s, autism, and pervasive developmental disorder (Volkmar et al., 2005). This created a number of misdiagnosed or undiagnosed individuals (Barnhill, 2007). For those emerging young adults, unlike the general population, there were limited opportunities, resources, and available services for the young

person as there are now available (Eaves & Ho, 2008; Gerhardt & Holmes, 2005). Learning advocacy skills and resource skills provides needed support to the student with ASD (Dipeolu et al., 2015) while building self-confidence (Alexander, 2017). Behavioral interventions have been found to be effective for the newly diagnosed adults with ASD, providing new opportunities and freedoms not previously experienced (CDC, 2017).

Theories in Emerging Adulthood

There are a number of theories in emerging young adulthood. However, the consensus is emerging adulthood is a long and often tumultuous time for young adults as they gain autonomy and experience exposures to new relationships that can positively or negatively affect the trajectory of their lives (Schwartz, 2016). Young adults with ASD are compromised in the ability to gain their autonomy and experience relationships affecting the trajectory of their lives. This is an important concept, as there are no easy answers for emerging neurotypical or autistic adults. However, is important to understand this stage in the life cycle and the needs associated with supporting both types of emerging young adults to young adulthood.

Emerging young adulthood to adulthood is a time when social structure evolves, identity is explored, and worldviews are established. More importantly, it is the time when individual qualities of character develop to include accepting responsibility for self, making independent decisions, and becoming financially independent (Arnett, 2015). Emerging young adulthood is a time representing the young adult's opportunity to redirect his or her own life course. It is a time when adolescents can be released from the burden of dysfunctional families and successfully complete developmental tasks, or it may be a time that can be more troubling for young adults who may be identified as "entitled" by societal standards (Schwartz, 2016). The time of young

adulthood can be a time with exacerbation of depression, anxiety, and worrying about the future (Arnett, 2015). However, not all emerging adults take a linear path to adulthood.

For typically developing individuals, the emerging adulthood stage is filled with difficulties, but with support and maturation, the problems and difficulties are often overcome without long-term negative impact. However, this is not the case with those individuals who are atypically developing in the emerging adulthood stage (Arnett, 2015; Meyer et al., 2018).

Research reflects the significant challenges the young adult with ASD experience. The challenges include adaptive behaviors like communication skills and activities of daily living. Unfortunately, there have been few studies examining the “trajectory of adaptive behavior across childhood and adolescence” (Meyer et al., 2018, p. 2870) for those with ASD. The characterized deficits found in young adults with ASD in self-care, activities of daily living, and communication, may be lower than expected, based on lower intellectual functioning (Meyer et al., 2018).

Studies have examined development delays, specifically measuring the trajectories of daily life skills. Recent research indicated young adults with ASD remained substantially below age appropriate expectations and suggested adaptive behavior development plateaus in adolescence either remains the same or declines during young adulthood (Meyer et al., 2018.) Examples of those adaptive areas are communication, daily life skills, socialization, and motor skills (Meyer et al., 2018). The above findings were also consistent with previous studies (Bal & Lord, 2015; Meyer et al., 2018; Smith et al., 2012). This signifies the importance of the teaching and re-teaching of daily life skills throughout young adulthood to maintain and build upon communication and adaptive skills learned prior to adolescence (Meyer et al., 2018).

Emerging Adults with Autism

Young adults with ASD, especially those individuals never diagnosed or diagnosed late in life secondary to the absence of ASD diagnoses, often do not have the capacity to develop a healthy social structure, create their own identity, be responsible for self, and make safe and healthy decisions. It is rare when a young adult with ASD can be fully independent (Farley et al., 2018; Holmes et al., 2018). The majority of young adults continue to live in their parents' homes, providing the emotional and financial supports as they have aged out of previous services (Farley et al., 2018).

Situation to Self

The motivation for conducting this qualitative study was to contribute to closing the present gap in literature of programming and resources to meet the needs of young adults and adults with ASD. This includes the available opportunities for young adults and adults in the ASD population and supporting each client in achieving the highest level of independence. The evaluation and assessment in this study of a known long-term life skill-based program may provide an ontological and epistemological philosophical assumption. The assumption is that effective and integrated life skill programming may lead to young adults in the ASD population achieving their individual highest-level independence. The construct of this study was to understand and describe the development of individuals with ASD through observation, identifying patterns, documenting, interpreting the characteristics of this population and the validity of the program design of being based in a life skill curriculum.

Problem Statement

Historically, although there had been a few studies on children with ASD, the majority of children were diagnosed and then treated with placement in institutions. In the 1980s, children

around 3 years old did not have the benefits of early diagnosis and advanced treatments of today, and participation in interventions was frequently unavailable for this current population of now emerging young adults (CDC, 2017). With the increase of diagnosed children with ASD, research interests warranted more studies in how to address the needs of adults with ASD (CDC, 2017). Research interests include evaluation of facial recognition, social relationships and communications, and adaptive behaviors. To date, research has not unveiled a formalized model to support the development of a curriculum to teach life skills, social skills, and communication skills to lower functioning adults. This study provides insight into the specific life skill model's effectiveness for lower functioning young adults with ASD.

Purpose Statement

The purpose of this phenomenological study is to evaluate the effectiveness of the Life Skill Integrated Model design for young adults with ASD. A life skill integrated model designed for young adults with ASD is defined as an effective model in their successful transition to adulthood. To date, research has not unveiled a formalized model to support the development of a curriculum to teach young adult life skills, social skills, and communication skills to lower function adults. There continues to be a small segment of ongoing studies attempting to close the gap. Those include previous studies indicated young adults with ASD remain substantially below age appropriate expectations in adaptive behaviors (Meyer et al., 2018). Adaptive behaviors include self-care, understanding basic health and safety, daily life skills, communication, and socialization (Meyer et al., 2018). This suggests adaptive behaviors plateau in adolescence and remain the same or decline during young adulthood. This signifies the importance of the teaching and re-teaching of daily life skills throughout young adulthood to maintain and build upon communication and adaptive skills learned prior to adolescence (Meyer et al., 2018).

Significance of the Study

The significance of this study is to empirically evaluate life coaching and teaching specific life skills as a viable model that will provide opportunities for success in young adults with ASD becoming as independent as possible. There are very few programs that incorporate the Life Skill Model as the primary model of treatment where all activities are built around this model in an effort to reinforce learning through experience. This study helps close the gap of programming available for older clients with ASD who had not previously been taught life skills. Instead, the clients with ASD were placed in a facility providing basic care and not providing opportunities to gain knowledge and the ability to move into more independent living situations.

There is little known about the transitions into adulthood especially in terms of secondary education and employment for the ASD population (Lai et al., 2015). The purpose of this program evaluation is to determine effects of the content of this model on the adult population of clients with ASD related to integration of life skills successfully into everyday life. Gaining knowledge regarding the implementation of the life skill curriculum and program activities provided insight and suggestions for improvement to the existing program and documented the successes of each client in achieving their individual goals and objectives. The program to be assessed has been operational for the past 10 years. The effectiveness of the life skill model has not been evaluated except through anecdotal evidence and following clients once they leave the program.

Research Questions

Research Question 1: How does the life skill curriculum increase the ability of clients with ASD to gain in autonomy and independence?

Research Question 2: What specific ways are the clients able to integrate and demonstrate the learning points from the curriculum in daily life?

Research Question 3: How are parents impacted by the curriculum to better understand and support their young adult with ASD through the process of increasing their autonomy and independence?

Definitions

Activities of Daily Living includes in part, personal hygiene, dressing, undressing, meal preparation, toileting, housekeeping, safety, laundry, recreational activities, and medication management and health (Stabel, 2013).

Autism Spectrum Disorder is defined in part as “persistent deficits in social communication and social interaction across multiple contexts . . . currently or by history” (APA, 2013b, p. 27).

Cabin Mountain Living is a private long-term care center providing opportunities for young men and women with ASD to achieve the highest level of individual self-sufficiency through the teaching of life skills, support and implementation of those life skills daily.

(www.cabinmountainliving.com)

Emerging Adults includes ages 25–30 (Arnett, 2015).

Emerging Young Adults includes ages 18–24 (Arnett, 2015).

Self-sufficiency is the ability for an individual to care for their own needs in a safe manner and have the ability to self-advocate and resource when assistance may be needed (Autism Speaks, 2015; Bellando et al., 2016).

Summary

Transitions for the Emerging Young Adult

Emerging young adults with ASD experience many challenges in developmental abilities across multiple contexts. Multiple deficits include challenges and limitations in social communication, interactions, difficulty with relationships, maintaining social boundaries, and the inability to identify non-verbal communication (APA, 2013b). This population has experienced these challenges since early childhood and without early intervention, disabilities and deficits negatively affect every day living and the ability to achieve any form of independent living (van Schalkwyk & Volkmar, 2017).

Research Gap

A thorough review of the literature demonstrated the significant lack of research in assisting emerging adults with ASD to determine what may be beneficial to assist in gaining life skills that could lead to successful independent living. The needs of people with ASD are great, and life coaching provides the opportunity to work with both clients and their families in developing the life skills needed to be as successfully independent as possible.

CHAPTER TWO: LITERATURE REVIEW

Overview

Historically, children with autism around 3 years of age in the 1980s did not have the benefit of quality interventions to address the symptoms of ASD since many of the evidence-based techniques of today were not available for this population (Volkmar, 2013). A lack of studies on children with autism at that time inhibited the ability to obtain any intervention and instead many of these children were institutionalized (Robison, 2019; Volkmar, 2013). With the increase in prevalence of children with ASD, research interests warranted more studies in how to address the needs of adults with ASD. This includes evaluation of facial recognition, social relationships and communications, and adaptive behaviors (Volkmar, 2013). There is also a part of the diagnostic system providing the severity levels based on repetitive or restricted behaviors and social communication (APA, 2013b). These levels outline the level of support the young adult with ASD will require.

Diagnostic Criteria in the *DSM-5*

The *Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition (DSM-5; APA, 2013a)* describes the diagnosis of ASD based on the severity of deficits instead of the diagnoses of high functioning autism, pervasive developmental disorder, and Asperger's syndrome found in earlier versions of the diagnostic manual. Currently, essential features include deficits in understanding social cues, appropriate social interactions, repetitive behaviors, interests, and limiting functional impairments (APA, 2013a). For a diagnosis to be made, there needs to be impairment in social cues with deficits in non-verbal communication and social-emotional reciprocity that are pervasive and sustained. Also, there are many young adults with ASD

diagnosed with a restricted and repetitive pattern of behavior, activities or interests, and excessive adherence to routines.

All individuals diagnosed with ASD, regardless of age, are assessed based on the individual's social communication and restricted or repetitive behaviors. This assessment determines the severity level of required support falling on the continuum of Level 1 (requiring support), Level 2 (requiring substantial support), or Level 3 (requiring very substantial support; APA, 2013a). Severity specifiers or descriptors are used to describe symptoms associated with ASD. The specifiers are not stagnant with young adults diagnosed with ASD, as the symptoms associated with ASD may vary in severity over time. The severity specifiers address the impairments in intellectual and/or language, with known medical, genetic, or environmental factors associated with the neurodevelopmental, mental, or behavioral disorders (APA, 2013a).

DSM-5 Diagnostic Nomenclature

Recent changes to the *DSM-5* created changes to the diagnosis of ASD. The *DSM-5* changes warranted studies by the DSM-5 Task Force and Work Groups to determine the correct nomenclature to use when referring to individuals or groups with the ASD diagnosis (Regier et al., 2013). An initial online survey was developed in the United Kingdom to evaluate views and terms used to describe autism (Kenny et al., 2016). The study participants consisted of stakeholders, categorized in four groups: professionals, family, friends, or persons with the diagnosis. The study led to a much larger convenience sampling to determine the most accurate descriptors for those diagnosed with ASD, and results of the study endorsed the terms *autism* or *on the spectrum*. For many with or caring for those with autism, the qualitative data demonstrated the use of the term “disability” as the descriptor and was not endorsed; instead, the study concluded there were no specific or universally used terms for people diagnosed with

autism or on the *spectrum* (Kenny et al., 2016). For purposes of this study, the descriptor “young adults with ASD” will also be used.

DSM-5, Incidence, and Prevalence of ASD

The prevalence of autism is one of every 68 live births in the United States (CDC, 2017). This prevalence has steadily increased over time, doubling since 2004 (CDC, 2017), and this increase is attributed to the result of broadening the diagnostic criteria and specific diagnostic testing designed to identify ASD (King & Bearman, 2009). Frazier et al. (2014) suggested there is an increase in incidence of females being diagnosed when historically it was thought females were underdiagnosed as they did not present with as much of the criteria as males. Females with ASD tend to have stronger social skills, the ability to imitate others socially, more effective communication skills, and fewer behavioral problems than males. These strengths contributed to delayed diagnosis (Cridland et al., 2014).

An epidemiologic sample study was conducted in South Korea to assess if the changes in the *DSM-5* affected the prevalence, diagnostic processes, and clinical services for those previously diagnosed from the *DSM-IV* with pervasive development disorder (Kim et al., 2014). The findings suggested that most individuals diagnosed prior to the *DSM-5* were found to meet the diagnostic criteria for ASD to continue evidence-based services (Kim et al., 2014). Therefore, although changes occurred in the criteria, evidence based services remained unchanged.

Gender and Misdiagnosis of Females

The diagnosis of ASD is found four times more often in males than in females (APA, 2013b), and females diagnosed with ASD have been found to be intellectually lower functioning than males (CDC, 2017). Because of the lower functioning of females, they are often not diagnosed with ASD but instead diagnosed with learning and developmental disorders (Attwood,

2007). Secondly, females with ASD tend to have stronger social skills and fewer behavior problems than males (Cridland et al., 2014). As the complexity of relationships increases with age, deficits in social skills for females become more apparent. Late intervention for young females is common and results in difficulty for females to become connected with support services (Cridland et al., 2014). Puberty, fashion, and hygiene present challenges for females with ASD who are typically concrete, black-and-white thinkers and lack awareness into the nuances of fashion. Maintaining healthy hygiene routines, boundaries, and discretion about private matters is difficult, creating challenges in the home and at school (Cridland et al., 2014).

Cause of ASD and Risk Factors

There is no specific known cause for ASD; however, over the past five years, researchers have identified a genetic predisposition in some cases (CDC, 2017). Research reports risk factors to include extreme pre-mature birth, parental mother's age of 35 or older, and environmental pollution (APA, 2013b). There is a small amount of research indicating that ASD originates in the brain and is not a reaction to immunizations (Minshew & Williams, 2007).

Initially, it was thought ASD was caused by a regional brain dysfunction. However, there is convincing evidence through more extensive testing that concluded ASD is a large-scale neural systems dysfunction implicating gray matter and white matter connectivity disturbances (Koolschijn & Geurts, 2016; Minshew & Williams, 2007). These newer findings support a multidisciplinary approach for both diagnostic and follow-up for those individuals diagnosed with ASD (Saltık & Başgöl, 2012). There is still a great deal to learn about ASD through the lifespan, specifically prevalence, cause, and effective treatment modalities.

Resources for Emerging Adults with ASD

For those emerging young adults diagnosed with ASD, unlike the general population, limited opportunities, resources, and service are available, but research is bringing awareness to the need (Eaves & Ho, 2008; Gerhardt & Holmes, 2005). Learning advocacy skills and resource skills for the student with ASD provides needed support while building self-confidence (Alexander, 2017; Dipeolu et al., 2015). Behavioral interventions such as a modified applied behavioral analysis (ABA) have been found to be effective for the newly diagnosed ASD adult population, providing positive reinforcement in specific living skills, new opportunities, and freedoms that were not previously experienced (CDC, 2017). Early diagnosis and intervention have provided the opportunity for children with ASD to have supports optimizing learning outcomes (Fenske et al., 1985).

Outcome Data for Emerging Adults with ASD

In review of outcome data for those diagnosed with ASD in the 1990s, outcomes were poor (van Schalkwyk & Volkmar, 2017). The learning outcomes included educational, social, cognitive, and behavioral. The preparation for the younger children makes for a smoother transition as they age out to adulthood and overcome some of the challenges young adults face in their transition to adulthood when not provided preparatory support (van Schalkwyk & Volkmar, 2017). Young adults with ASD were often socially isolated and highly dependent on family or staff for their activities of daily living. A plethora of resources are available for children; however, becoming a young adult means a significant loss in supportive services. For example, when young adults reach the age of 26 years, they are no longer allowed on their parent's medical insurance (McMorrow et al., 2015). As young adults are removed from their parent's insurance, larger numbers of young adults become dependent on Medicaid (McMorrow et al.,

2015). In the 37 Medicaid expansion states, “uninsured adults and children whose incomes are at or below 138% of the federal poverty level (FPL), including many who live with mental illness” (National Alliance on Mental Illness, 2019) as opposed to the low income population on Social Security. The process is easier for the low-income young adult to obtain coverage; there was a documented increase between 2013 and 2014 of 29.9% to 41.5% in the general population of this age group (McMorrow et al., 2015).

The research indicates that some may qualify for social security disability and Medicare, but this is a long and arduous process of which many parents of those on the spectrum may not be aware (McMorrow et al., 2015; van Schalkwyk & Volkmar, 2017). This becomes an important topic for clients and their families as the estimated costs of care can range from \$17,000 to \$22,000 per year, depending on the severity of the young adult’s ASD symptoms and corresponding treatment plan (CDC, 2014). This often creates financial burdens for families, interfering with care for young adults with ASD (CDC, 2014).

Adaptive Behavior Deficits

Adaptive behavior includes social competence skills, independent living skills, and life skills often referred to as activities of daily living (ADL), and these are viewed to be an important part of the assessment in disabilities (Matson et al., 2009). Adaptive measures have been developed and utilized in testing instruments, determining strengths and weaknesses of the individual for intervention purposes (Matson et al., 2009). Matson et al. (2009) also found there was “salient differences in adaptive behavior” (p. 1206), primarily related to independent personal self-care as taught in the developmental centers the subjects were attending. It should be noted the mean age of the population was 51.62. Research supports Matson and colleagues’ findings that individuals with ASD have significant adaptive behavioral deficits including the

ability to provide self-care, participate in effective communication, or engage in social interactions.

Adaptive behaviors also include understanding of basic safety and health and how to access community resources (Meyer et al., 2018). It is this researcher's premise addressing adaptive behaviors and teaching life skills to emerging young adults, one would find an increase in self-care and management in the domains of socialization, communication, and the ability to live semi-independent as opposed to a totally dependent existence. The three main areas are (a) conceptual skills: reading, numbers, money, time, and communication skills; (b) social skills: understanding and following social rules, obeying laws, and keeping safe to eliminate chances of victimization; and (c) life skills: the activities of daily living including education and job training.

Functional Deficits

Functional deficits of young adults with ASD include persistent behavioral concerns, limited independence, and low economic status. Further, functional deficits express themselves in repetitive fantasy play not related to learning. The young adults with ASD do not understand metaphors as they are concrete and black and white in their thinking (Eaves & Ho, 2008). Found in the literature, individuals with ASD are often honest without regard to another as there is a lack of ability to appreciate the feelings and thoughts of other people (Kestenbaum, 2008). Sensory sensitivity to noise and touch, both physical and material, may impede functionality in young adults with ASD. Gross motor skills deficits and awkward gaits distance the young adults from peer groups of the same age. There is also the negative impact of sleep disturbances, anxiety, depression, and obesity with the emerging young adult with ASD (Barnhill, 2007).

Treatment Interventions for Adaptive Skill Deficits

Classic Interventions

In the 1970s, an increase in interest and treatment protocol for children with autism developed. However, this was limited, and most children identified as autistic were institutionalized in mental hospitals or other non-specified protective environments. At that time, medical and psychiatric interventions were not considered beneficial (Fenske et al., 1985; Lovaas, 1987). Behavior modification became the standard treatment (Lovaas, 1987). Early intervention did not address outcome or prognosis (Fenske et al., 1985) as “few early accounts of psychiatric disorders of children fulfilled the classical criteria for Kanner’s Syndrome” (Wolff, 2004, p. 201). Kanner’s syndrome was described as a form of infantile psychosis that was characterized by infantile autism with the treatment consisting of psychotherapy (Mosby, 2008; Wolff, 2004).

Until 1979, children were initially thought to be exhibiting symptoms that correlated with a form of childhood schizophrenia (Wolff, 2004). This led to children not being diagnosed accurately until age 6 or 7 when affective disturbances were more easily noted (Wolff, 2004). A groundbreaking study by Fenske and colleagues (1985) reported on the benefits of early intervention prior to 60 months of age in their study of 18 children diagnosed with autistic features. They concluded the “relationship between age at intervention and treatment outcome has not, to our knowledge, been previously documented for autistic children” (Fenske et al., 1985, p. 57). Numerous studies since 1985 have supported the benefits of early intervention, but many adults of today did not receive those interventions when they were children, which created a significant disadvantage for today’s population of young adults with ASD. Therefore, identifying treatment techniques that work for the older ASD population is necessary. The literature suggests

that coaching life skills may be a technique that could make a difference in people with ASD (Gunn et al., 2017).

Early interventions include a focus on “building and fostering social–relational and communication abilities” (Elder et al., 2017, p. 286). Other treatments include speech and occupational therapy and for behavioral challenges, Applied Behavioral Analysis (ABA; (Becerra et al., 2017). Sensory therapies and teaching basic life skills such as toilet training, dressing self, and participating in a meal with family have empirically been found to minimize behavioral delay (Elder et al., 2017). A combination of treatments addressing the child with ASD deficiencies had been proved most beneficial (Becerra et al., 2017; Elder et al., 2017)

Current Interventions for Adults with ASD

Coaching

There are many types and modalities of coaching. The biggest difference between coaching and psychotherapy is psychotherapy is a healing process. Coaching addresses the challenges or roadblocks the person has today and together they work to move past the challenges and flourish (Gunn et al., 2017). Coaching young adults with ASD includes clients developing their goals collaboratively, creating a plan to meet those goals, and walking beside them, providing support, encouragement, and advocacy. Advocacy provides help and supports clients in building capacity to independently navigate postsecondary education, employment, health care, living independently, and negotiating any roadblocks. Experientially, many young adults with ASD also request support in budgeting, tax returns, obtaining independent living accommodations, resume development and interviewing practice, and navigating the health care system (McManmon, 2016).

Coaching the young adult clients with ASD uses a wide variety of educational, behavioral, and solution-focused strategies (Germi et al., 2015). The primary focus for the coach is to walk beside to support, encourage, and advocate for the client in achieving the highest level of meaningful independent living. This is accomplished through identification of his or her goals to develop the necessary skills to reach those goals as safely as possible. For the coach, one of the most daunting factors in working with the challenging behaviors typically seen in young adults with ASD is the coach's emotional reactions, beliefs, and attributions to those behaviors, for example: processing disorders, mood instability, and sensory deficits (Germi et al., 2015). Building rapport and trust with the client takes time and patience. The Coaching Life Skills model adapts to the concrete thinking of the ASD client as it is task-oriented and the goal is accomplishment through repetition.

Life skills are the ADLs required to independently care for oneself and activities related to independent living such as banking, laundry, and household management, demonstrating the readiness for more independent living. Educational interventions for teaching functional living skills and employment skills to individuals with ASD have been investigated in several studies (Burke et al., 2010; Chen et al., 2015). However, there is a significant shortage of research on the effectiveness of teaching the self-help skills, household chores, and appropriate contacts in the community. Hong et al. (2017) conducted a meta-analysis and systematic review of a group of adults with ASD. The main findings from this analysis and review demonstrated limitations in analyzing the long-term effects of various methods in achieving positive results in functional life skills. The review reinforced the need for additional research in the longevity of young adults with ASD maintaining independent living skills. There is further research needed on interventions designed to build self-help skills, home chores, and accessing the community skills

in young adults (Hong et al., 2017). Task organization is considered a valuable tool for increasing independence in children with ASD. However, future studies are needed for young adults (Mavropoulou et al., 2011).

Life Skills

Life skills are learned behaviors needed for awareness and growth throughout the lifespan. Problem solving skills, social skills, verbal and nonverbal communication and other capabilities enable an individual to accept social responsibility and meet desires, needs, expectations, and interpersonal relationships without hurting self or others (Germi et al., 2015). Additionally, the lack of money management skills substantially inhibits the ability of the young adult with ASD to achieve some form of independence. Quality of life and achievement of independence rely heavily on the ability of the client to learn, understand, and practice these skills (Cheak-Zamora et al., 2017).

Social Skills

There are social skills training programs available for high functioning young adults with ASD. The PEERS® program has been found to be effective in overall social skill building, demonstrated by increases in social engagements and social skill knowledge. However, this was only tested on high functioning young adults with ASD (Laugeson et al., 2015). Young adults with ASD are considered high functioning when ASD is without intellectual and language impairment. These specifiers and other specifiers define more accurately ASD (APA, 2013a). The Peers® manual has been updated to address challenges associated with young adults with ASD between the ages of 18–24. To date, findings have demonstrated the efficacy of this program as a viable tool addressing the challenges high functioning young adults with ASD face as well as increasing autonomy while building those skills (McVey et al., 2016). However,

clients on the mid-to-lower end of the autism spectrum have little to no social skills training methods available (Gantman et al., 2012). Task organization has been established as a valuable tool for increasing independence in children with ASD; however again, future study is needed for young adults with ASD (Mavropoulou et al., 2011).

Because there is a higher incidence of ASD in males than females, a large part of the present social skill curriculum is geared toward males. Females with ASD tend to internalize symptoms and experience challenges in socialization and communication (Jamison & Schuttler, 2017). As the first of its kind, the “Girl's Night Out” curriculum addresses specifically the social, emotional, and unique needs of adolescent and young adult females with ASD. Three core areas addressed in this curriculum are self-care, relating to others through social competence, and confidence through positive self-concepts (Jamison & Schuttler, 2017).

Higher Education and Training

Vocational Education

For any student, academic achievement is critical to the student's future. Achievement is no different for the college student with ASD. Recognizing the cognitive profiles of the student and adapting instruction, while acknowledging the importance of the academic and social skills relationship, are critical for professors and instructors working with the ASD population (Bruder, 2010; Fleury et al., 2014). ASD falls under the Americans with Disabilities Act (ADA) and was created by the federal government to protect individuals with disabilities from discrimination in areas, for example, of education, housing, and transportation (ADA, 1990). Accommodations are an important component to the educational and academic achievement of the young adult with disabilities including ASD. A 504 plan also falls under the ADA regulations and consists of a

multidisciplinary team. The team develops a plan for the specific student to ensure academic success with appropriate accommodations (Skalski & Stanek, 2010).

Few individuals with ASD have been educated or trained in any type of vocational skills (Seaman & Malone, 2016). The lack of education negatively impacts young adults with ASD and their ability to compete and retain employment (Seaman & Malone, 2016; Xin et al., 2015). Many educators are not prepared to adapt curriculum for students with ASD (Fleury et al., 2014). Lord and McGee (2001) reported the greatest need for improvement within higher education for potential teachers is to receive training in evidence-based methodology and practices for teaching students with ASD. One effective school-based intervention was the use of video-based interventions; it was found to have the highest positive outcome in behavioral changes and growth (deBruin et al., 2013). Online training is available for teachers to increase their knowledge about the stigmas attached to the students with ASD while decreasing false misconceptions (Gillespie-Lynch et al., 2012).

Secondary Education

Young adults with ASD attempting to enter and successfully complete college have little support (Cox et al., 2017). Colleges can provide a supportive atmosphere consisting of a healthy environment and respect for diversity conducive for emerging adults with ASD learning and social integration. This includes supportive living environments, peer mentors, tutors, and focusing on social programming including life skills, providing a more normal experience and personal identity for students with ASD (Cox et al., 2017). Students with ASD provide opportunities for students without challenges to volunteer in the university setting (Gardiner & Iarocci, 2014). College counselors can be change agents by understanding the challenges specific to students with ASD. Developing rapport, building trust, and facilitating the transition through

the identification of services and accommodations are required for effective college counselors. The counselor follows through with securing needed services through advocacy and providing connection to college mentors and tutors (White et al., 2017).

Government Services for Emerging Adults with ASD

Vocational Rehabilitation and Employment

The Vocational Rehabilitation Service under the Rehabilitation Act of 1973 provides services to over one million rehabilitation clients (Chen et al., 2015). The population of emerging adults with ASD receives 0.6% of the available public services. Young adults with ASD have poorer job outcomes due to the inability to communicate appropriately and adapt to the changing environment as well as the lack of ability to reason and identify problems within the work environment (Chen et al., 2015). This leads to the young adult with ASD being terminated from jobs due to lack of performance. It is essential for the young adult, in order to be successful in the workplace, to have consistent training and vocational support. Vocational rehabilitation services are a viable support in preparing transitioning young adults to meaningful employment. However, rural Vocational Rehabilitation Services have extensive waiting times, some up to two years due to the lack of funding, therefore, restricting services that may otherwise be available. This is in spite of a report to Congress with a large volume of information. Only 2% of research funding on ASD is dedicated to the needs of adults with ASD (U.S. Department of Health and Human Services, 2017).

Lack of funding and available resources may account for adults with ASD having some of the lowest employment rates. Ninety percent of adults with ASD were unemployed and not living independently (Burke et al., 2010). Cimera et al. (2013), found young adults with ASD who received early transition support were employed and earning higher wages, significantly

contributing to their independent living expenses. Early transition support should be started as early as 14 years old to be most effective (Cimera et al., 2013). Transition from high school to young adult is a challenging time and especially so for young adults with ASD. Unfortunately, there is a lack of resources and services available during this foundational time (Shattuck et al., 2011).

Religiosity

Presenting theological principles is a challenge to individuals with ASD (Galler, 2013). Clients brought up in a Christian home are more responsive to the support and reliance on God in their lives (Galler, 2013). The higher functioning clients with ASD have a better understanding of God and His power. The challenge is more evident in lower functioning clients. Literature is continuing to be identified to provide insight into religiosity with the older low-functioning clients with ASD (Galler, 2013).

A spiritual assessment is completed by the client during the initial assessment conducted by the program's life coach to establish a baseline of the individual's understanding, knowledge, and family history. The FICA Assessment is used. This assessment addresses Faith and belief; the Importance of the faith and belief in the client's life; the spiritual or religious Community they may have found supportive and helpful; and how the coach may Address this in their growth plan (Puchalski, 2006). Clients are encouraged to attend community church services.

Research Gap

The review of the literature validates the gap in research and services for young adults with ASD. The literature is lacking in helping to better understand how to assist young adults with ASD in their quest for independence, and models are limited to help create programs that

can be implemented to support the young adults with ASD in the transition period from adolescent to young adult (Wehman et al., 2014).

The implementation of a social and communication-coaching program includes communication, social skills, peer support, and executive functioning skills groups, and individual coaching. There is the need for fluidity in the coaching program models. If students with ASD can integrate executive functioning rules and communicate appropriately, there is evidence they have a higher rate of achievement than without the coaching program (Weiss & Rohland, 2015). To date, research has not unveiled a formalized model to support the development of a curriculum to teach young adult life skills, social skills, and communication skills to lower function adults. There continues to be a small segment of ongoing studies attempting to close the gap.

Data from the National Longitudinal Transition Study 2 were used to examine participation rates in young adults with ASD (Orsmond et al., 2013; Shogren & Plotner, 2012). Young adults on the higher functioning spectrum were significantly more likely to have friends, be invited to activities, and were socially less isolated (Orsmond et al., 2013). Predictors for less social participation were found in young adults with lower functioning skills, living with parents, and those having low conversation ability. These predictors have a significant impact on this population as social participation indicates the quality of life and overall function of young adults with ASD (Orsmond et al., 2013).

Wentz et al. (2012), in an effort to validate the impact of the development of Internet support and a coaching model for young adults diagnosed with ASD and attention deficit disorder (ADD), applied a user-centered design to an eight-week program. Ten participants were evaluated and found to have an increase in self-esteem and quality of life.

Current literature is fragmented in the experiences of and supports in place for the student with ASD enrolled in college (Gelbar et al., 2014). However, a report by Gobbo and Shmulsky (2014) highlighted the strengths of students with ASD. Within a specific topic, these students have a passionate interest and are often highly knowledgeable on that topic. There is a desire to be correct, ask questions, seek clarification, and an attention to detail which are all considered positive attributes. Their adherence to rules and following directions is yet another great strength. Trained college counselors working with students can close the gap and change the trajectory of transition into the workforce.

Outcome Studies

Published outcome studies for young adults with ASD are limited (Barnhill, 2007). This may be related to too few clinicians being aware of ASD as well as a misunderstanding of ASD's symptomatology prior to 1981. Information on outcomes can be collected through clinical case studies, small group studies, and the few longitudinal research studies in existence. Public awareness, education, and employment opportunities need to be made available for adults with ASD (Barnhill, 2007). Even with the increasing number of individuals with ASD entering adulthood, there are few evidence-based programs for these individuals as they progress through life (Smith et al., 2012).

One evidence-based program identified in the review of existing sources was designed for high functioning adults with ASD. The teachers or coaches participated in a behavioral skills training program to teach behavioral skills to young children with ASD and associated behavioral challenges. In the two experiments conducted, this training program was successful in providing tools for the young children to improve behavioral skills, but also employed adults with ASD as behavioral technicians following training (Lerman et al., 2017).

Program Assessment to Address the Research Gap

Cabin Mountain Life Skill Program Assessment

The Cabin Mountain life skill program is a residential program for persons with ASD located in West Virginia. This study included a program assessment that evaluated the effects of the curriculum and determined both positive and negative integration of skills into everyday life. This assessment identified strengths and weakness in the curriculum and program. Assessing the strengths and weaknesses also demonstrates staffing exceling and highlighting deficits in the mentoring process. With the lack of resources and programs to support young ASD adults in transition from dependent home living to the most independent living potential that is achievable, the program evaluation included curriculum that encouraged further studies and program development.

To address the gap in services, the validity of the Life Skill Model and supportive services, an assessment of the programming for young adults diagnosed with ASD, was conducted through the Cabin Mountain Living (CML) center. This program is primarily based on a Life Skill Model with supportive mentoring. The reason for this model was many of the clients served, except for high functioning clients with ASD, had difficulty with conceptual and traditional therapeutic strategies. The Life Skill Model supports the young adult with ASD and other disorders in developing abilities and demonstrating adaptive and positive behavior, developing the skills required to meeting challenges of everyday living, and the skills required for his or her success in life in achieving individual goals. Through repetitive practice, the clients developed mastery of the targeted skills, including decision-making, problem solving, communications skills, self-awareness, and empathy. To accompany the Life Skill Model, implementation of community based instruction (CBI), cognitive behavioral strategies, solution

focused strategies, the arts (music, dance, painting), sensory rooms, neurofeedback, and ABA were implemented in order to meet the needs of each individual client.

Life Skill Program

Young adults with ASD vary in capabilities from low functioning to high functioning; verbal to non-verbal; and adequate reading, writing, and arithmetic to not having the capacity to do elementary school basics (McManmon, 2016). This population, in general, struggles with managing ADLs. Clear, hands-on incremental instruction supported with a strong CBI component is required in teaching the life skill curriculum. Basic life skills training encompasses personal care, household chores, money management, healthy meal planning, shopping, and cooking. Additionally, decision-making, organization, and prioritizing are important executive function skills included in the curriculum.

The clients identified for this study live in a home environment at the Cabin Mountain Living Center. In an effort to begin preparing for vocational training, the clients go to the Life Skill office once a week. The program CEO has clients prepare for the life skill day and ride the bus as if they were going to work. This provides practice prior to obtaining employment outside of the program. As the client moves forward, the community is open to providing employment opportunities. Mentors, life coaches, and trained individuals in the work environment are available to support this training. As the young adults master the skill base required to live independently in a supportive community, moving into an independent living situation becomes the focus. Safety, learning how to use resources, and personal responsibility are major stepping stones to the independent living situation (Volkmar, 2013).

Purpose

The study was designed to determine the effectiveness of the training on the young adults with ASD regarding integration of skills into everyday life. This includes potential gain in knowledge regarding the implementation of the current life skill curriculum and program activities specific to the clients with ASD. Through the identification of strengths and weaknesses found in the curriculum, weaknesses are addressed with redesign suggestions or curriculum recommendations in an effort to improve the curriculum. This study documented the success in helping clients with ASD achieve their individual goals and objectives.

Process Evaluations

Assessment of the effectiveness of the process for the life skill curriculum and corresponding activities was achieved through assessments with the participants involved in the life skill program at Cabin Mountain Living. Evaluations of actual events that co-occur to support the life skill curriculum included CBI, and the effectiveness of the combination was assessed, however, modified secondary to COVID-19. Staff competency was evaluated as to the individual technical and emotional support provided to the participants during the researcher's two visits to the campus. Staff-Client Interactive Behavior Inventory (SCIBI) was to be administered in order to measure staff behaviors in response to the challenging behaviors found in the participants (Willems et al., 2010). Because of the COVID-19 restrictions, the researcher was unable to administer the SCIBI. Observation of the integration of the life skill curriculum in real time by the clients was also a critical component of this evaluation.

Client Outcome Evaluations

Client outcome evaluations were achieved through the assessment of progress the client with ASD achieves in the short and intermediate term for the dissertation and long term for

complete program evaluation. The life skill curriculum evaluation process begins with an initial assessment, spiritual evaluation, development of goals, and the development of an individual plan. There is a behavioral chart specifically for each client, providing the opportunity for the mentors and director of the program to weekly assess clients' progress at shorter intervals.

Through a collaborative approach, 3-month and 6-month evaluations were conducted with each client to assess effectiveness of curriculum application in everyday life. The effects on the ASD clients' ability related to integrating learned skills into everyday life was evaluated.

Documentation of success or shortcomings in achieving the individual goals and objectives of the client was collected.

Summary

For neurotypically developed emerging young adults, the transition from adolescence is a challenging time. The time is characterized by a number of changes, instability, and exploration as the individuals discover their life directions. This transition occurs as the young adult experiences roles that are redefined, transformed, and left behind for new and different ones (Lane et al., 2017; Perrig-Chiello & Perren, 2005). This time of significant transition comes with long term consequences to the young adult's quality of life (Lane, 2015; Lane et al., 2017).

Arnett (2015) built upon the earlier works of Erickson, Levinson, and Keniston's theory of development in 18 to 25 year olds. However, Arnett noted that age was only an identifiable characteristic in the transition and did not correlate with the abilities of the individual. Many young adults are faced with the challenges of reaching and maintaining independence, obtaining and maintaining employment, and developing healthy relationships (Arnett, 2015).

For the young adults with ASD, or non-neurotypical, the challenges faced by the general population are exacerbated secondary to their cognitive, behavioral, and intellectual deficits.

Frequently, comorbid diagnoses of anxiety, depression, obsessive-compulsive disorder (OCD), and attention-deficit/hyperactivity disorder (ADHD) are found (Gotham et al., 2015). The individual may have been treated for these diagnoses; however, the comorbid diagnoses are not the primary diagnosis of ASD, thus creating further complications in the transition process (Gotham et al., 2015).

Identity “is a construct formed through the social environment” (Ratner & Berman, 2014, p. 138). University students with autistic features participated in a number of tests to determine how social limitations affect the formation of identity. The results, in part, found the higher number of autistic traits an individual has, the more difficult it is for the formation of an identity (Ratner & Berman, 2014). A decrease in social abilities and an increase in social anxiety are relevant in identity distress with clinical components of a fragmented self. In addition, the ability for young adults to adapt to non-familiar environments and difficulty processing change present challenges for them in the formation of identity (Mattys et al., 2017). The ASD young adult has challenges in processing unpredictable events or changes; they often have difficulties with perception and they tend to be non-flexible, which leads to an inability to adapt to unpredictable socioemotional events and contexts of the topic or event (Gomot & Wicker, 2012).

In healthy neurotypical young adults, the sense of gaining control is an important part of behavior. Rotter (1966) offered the conception of locus of control, external and internal, with the goal of seeing the relationship of behavior and outcomes as connected. In internal locus, the presumption is that events result from the individual’s behavior and actions. Conversely, external locus of control attributes the determination of events in the individual’s life to the roles of powerful people, chance, or fate (Ryon & Gleason, 2014). The ability to understand the relationship of behavior and associated outcomes or internal locus of control is frequently not

found with young adults with ASD as they struggle with self-efficacy and making the connection between how their behaviors and outcomes are connected (Ryon & Gleason, 2014).

For the neurotypical functioning young adult in this time of transition, they have experienced graduation from high school and have moved to attending college, vocational training, or obtaining employment. When they struggle or need guidance and assistance, the neurotypical young adult has the capacity to resource and to reach out to parents, mentors, and coaches. These neurotypical young adults have developed social and emotional skills, understand the “how and why” of situations, and are able to process options and implement life skills. However, these basic skills taken for granted by the neurotypical young adult are challenging and even debilitating to the young adult with ASD.

Those emerging adults with ASD often do not have the supports in place and require an educational curriculum in life coaching specific to the individual’s deficits and built upon his or her strengths. Focus on the “ability to resource” through experiential and collaborative learning is essential for the young adults with ASD to become as independent as safely achievable. One of the newer and innovative service delivery models for achieving this goal is peer mentoring. The neurotypical peer meets with students with ASD regularly to work on study skills, making friends, speaking with classmates, stress management, while providing the connection between the colleges, its resources, supportive, and safe resources (Roberts & Birmingham, 2017).

Independence and autonomy are commonly found in successful young adults. However, the ASD population of students following high school demonstrates a decline or plateau of learned skills and, therefore, reduced independence and autonomy. Skill building on strengths while providing tools to compensate for the deficits is essential. Emphasis on teaching executive functions, specifically organization, planning, and problem solving, is essential for the ASD

client to increase independence (Hume et al., 2014). With a population of undiagnosed older individuals with ASD, the research is limited. Secondary to the lack of diagnosed older individuals, understanding the effects over the life span research is almost non-existent in the existing literature. As younger adults are diagnosed with autism in childhood, studying them over their life span will provide valuable information as to the reality of life skill training effectiveness and independent achievements (Perkins & Berkman, 2012).

Another challenge is the lack of attention and funding to promote successful individuation of young adults with ASD in reaching his or her quest to a perceived “normal life.” Individuation includes education, independent living, productivity to include employment and community volunteering, with active participation in a community that builds on the individual strengths while accepting the challenges as others do (Perkins & Berkman, 2012). Through the teaching of life skills and CBI, mentoring, and job training/shadowing, their dream for independence may become a reality.

It is the researcher’s goal to contribute to the gap in literature regarding programming and resources to meet the needs, support the growth, and provide the opportunity for reaching the highest level of independence in emerging adults within the ASD population.

CHAPTER THREE: METHODS

Overview

Young adults with ASD have few resources for a successful transition from adolescent to young adult. There is a diminutive amount of literature evaluating and providing evidence that teaching a life skill curriculum is effective in enhancing the successful transition of young adults with ASD. There is a great deal of information and research on the effectiveness of early treatment (Fava et al., 2011; Tachibana et al., 2017; Zimmerman & Ledford, 2017) but a considerable empirical gap regarding clients who did not receive the ASD diagnosis or treatment until they were in late adolescence or early adulthood is evident. The purpose of this phenomenological study was to evaluate the effectiveness of the Life Skill Integrated Model designed for young adults with ASD at a private program in West Virginia, known as Cabin Mountain Living Center. Assessment of the progress of clients with ASD in the short (3 months) and intermediate term (6 months) was conducted following the initial assessment interview. Information for the study was obtained through the assessment of skills and interviews with clients, coaches, and mentors. The significance of this study empirically evaluated the life coaching, mentoring, and teaching of specific life skills as a viable model in promotion and enhancement of each client's transition from dependence to independence in a safe environment. This paper provides a program evaluation of the life skill curriculum compiled, taught, and refined specifically for young adults with ASD.

Design

This study, utilizing a descriptive qualitative and phenomenological approach, evaluated the effectiveness of the program based on the experience of the residential clients, parents, and staff. Eight clients attending CML, six with ASD and two with low IQ and processing disorders

in the short and intermediate term, were evaluated for this dissertation. The life skill curriculum was evaluated through initial assessments and development of goals. Utilizing a collaborative approach, 3-month and 6-month evaluations were conducted on each client to assess the effectiveness of curriculum application in everyday life.

The evaluation of the program curriculum provided preliminary evidence of client outcomes. It was hypothesized that demonstrating and teaching the life skill curriculum to young adult clients with ASD promoted and enhanced their transition from being a dependent young adult to reaching the highest level of independence for each client attending the program. Assessment tools were used to demonstrate effective teaching and to help monitor the client's progress by evaluating content mastery and to ensure the client is learning and moving forward. These indicators consisted of both formative and summative assessments that included (a) the initial interview; (b) observation in their living environment, data collection, and analysis on the client's learning and behaviors (Appendix A); (c) evaluation of community based learning was related to specific life skill curriculum (Appendix B); and (d) initial interview assessments (Appendix C).

Research Questions

Research Question 1

How does the life skill curriculum increase the ability of clients with ASD to gain in autonomy and independence?

Research Question 2

What specific ways are the clients able to integrate and demonstrate the learning points from the curriculum in daily life?

Research Question 3

How are parents impacted by the curriculum to better understand and support their young adult with ASD through the process of increasing their autonomy and independence?

Setting

Cabin Mountain Living (CML) is a long-term program based on a Life Skill Model developed by the leadership team at CML. This program is designed specifically for young adults transitioning from adolescence to young adulthood and who are also diagnosed with ASD or other neuro-developmental disorders. The primary goal of the program is for each client to achieve the highest levels of self-sufficiency possible based on his or her individual capabilities. The living environment is a safe and structured community setting where residents receive support and guidance from mentors, life coaches, and other staff members on a daily basis.

Participants

To evaluate the Life Skill Integrated Model, young adults with ASD who were residents of CML were sampled and included if they had a diagnosis of ASD or other neuro-developmental diagnoses. Six of the eight participants included low to high functioning young adults with the specific diagnosis of ASD. Two participants had differential diagnoses of nonverbal learning disorder (NVLD) and pervasive development disorder (PDD).

Consent and assent to participate were obtained once the initial approval was received to begin the study. Consent was obtained from the parents for those clients under parental guardianship. All the clients were asked to give assent. All demographic information from the clients was coded so that no identifying information would be exposed. All coded data were held separately from identifying information and will be in separate and locked locations following the research completion.

Demographics

The clients in this study consisted of 38% males and 62% female, 88% White and 12% Latino, with a median age of 26 for females and a median age of 30 for males. Clients on average were born between 1990 and 1994 and were diagnosed with ASD or other neuro-deficit diagnoses between the ages of 2 and 5 years old. Each client in this study had a diverse background co-morbid diagnoses and previous treatment protocols. All but one of the clients completed some form of high school. Two of the clients have taken online classes of interest at the college level. Most of the participants do not work outside the Cabin Mountain grounds; however, before COVID-19 restrictions, one client worked at a local resort and will resume those duties once the pandemic restrictions are lifted. The remaining clients are employed part-time at one of the program's recreation facilities like the restaurants, mini-golf, or horse stables.

Table 1

Client Demographics

Name	Years Attend	Gender	ASD	Comorbid Diagnosis	Meds	Previous Treatment
Abby	1	F	ASD	Yes	No	Yes
Cathy	10	F	NO	Low IQ, RAD, PDD	Yes	Yes
Donald	3	M	ASD	Yes	Yes	Yes
Julian	2	M	ASD	Yes	Yes	Yes
Louise	4	F	NO	FAS, NVLD	Yes	Yes
Marco	8	M	ASD	Yes	No	No
Sabrina	2	F	ASD	Yes	Yes	Yes
Shirley	6	F	ASD	Yes	No	No

Procedures

This study was approved by the Liberty University Institutional Review Board. Following approval, letters were sent to all parents for permission for their young adult to participate in the study and the researcher to have the ability to record the initial interview. The Assent of Young Adults to participate in the research study was explained individually to each client (Appendix E). Those clients under guardianship were also given the above release as it was important to gain assent for cooperation and active participation.

Due to COVID-19, the way in which the study was completed was altered to maintain protections to the participants and the researcher. The original procedure involved the researcher returning to the program after the initial interview at 3- and 6-month intervals; however, the researcher relied on key personnel at CML to conduct the reassessments due to state and local COVID-19 restrictions. At the 3-month interval, a call was initiated to speak with each client in the study; however, the majority of the clients stated they were “fine” and there was little conversation. In order to receive subsequent and substantive assessments, the key personnel provided additional and meaningful assessments of the clients’ growth and continued challenges. The staff also completed the 6-month and final assessment with the researcher completing the exit interview in-person, maintaining all COVID-19 restrictions. Present appendices include the format for the initial assessment with the questions that were addressed. There is also a Life Skill Assessment, Inventory, Mastery Checklist, and references.

Eight clients from CML were initially interviewed to assess the level of knowledge each client was able to articulate toward independent living. Individually, the eight clients verbalized they were attending CML to gain independent living skills. However, the clients interviewed will require assisted living for the remainder of their life, although it may be through “tiny houses”

built on property or other assisted living programs. The goal for all clients is to achieve the highest level of independence in a safe environment.

The Researcher's Role

The researcher in this phenomenological qualitative study and program evaluation examined the effectiveness of the life skill curriculum for young adults and adults enrolled in CML. Evidence of the client achieving milestones in the program's current life skill curriculum and CBI demonstrated the effectiveness of the curriculum. The researcher listened, observed, and collaborated with staff as to the progress of each client and what had been achieved based on the client's current goals. The researcher was instrumental in the development of the program but has not been involved for the past year and has become an objective observer.

Data Collection

This is a phenomenological qualitative study and program evaluation to assess the effectiveness of the curriculum for the clients with ASD in the CML to support their desire to move into more independent living. This study gave each client a voice and ensured the findings were substantiated with each of the client's participation in the life skill curriculum.

Each client completed an initial assessment specific to life skills and development of short, medium, and long-term goals. Following the comprehensive interview, the life coach and client developed the client's individual growth plan. The curriculum and group instructions were complemented by Community Based Instruction curriculum for special needs clients. Because of COVID-19, the Community Based Instruction was moved to the CML property and stations were constructed for grocery shopping, library, banking, and employment opportunities. Mentors worked alongside the clients based on the client's goals, curriculum, and activities. Life Coaches

worked with the client to provide support, advocacy, and instructions with the purpose of the individual safely reaching the highest level of independence.

This descriptive phenomenological study and program evaluation were designed to provide qualitative outcomes and evaluate the program processes. This method was also used to confirm the qualitative generated hypothesis. This study began with an individual initial assessment, a comprehensive interview, and a formalized assessment of the client's skills demonstrating client growth and the effectiveness of the curriculum application in everyday life. The assessments occurred at 3 months and 6 months (see Appendix A). The assessments were completed collaboratively with the director of the program, the operations director, and life coaches. There was also a specific behavioral chart for each client, reviewed weekly by the mentors and director of the program, in order to assess progress at regular intervals.

In qualitative analysis, the researcher seeks to understand the complexity of each client by uncovering the client's viewpoint subjectively. Beliefs and values affect the individual's thought process (Thomson, 2011). The collected data were descriptive and provided the qualitative basis for this study.

Internal validity examines the question, "Does your program make a difference for the people you measure?" (National Service Resources, 2006, p. 11). An internal validity weakness, secondary to the subjective not objective nature of qualitative analysis, is inherent in program evaluation research and prevents it from being used to develop generalizable knowledge. The program evaluation does have external validity, as it is a real program working with real clients in a non-artificial setting. This study provided all aspects of any changes such as unexpected occurrences, COVID-19 restrictions, to further explain and substantiate the findings. To demonstrate there are no inappropriate biases impacting the data, confirmation by others

examining the data is indicated as qualitative research is subjective, contextual, and interpretive (Thomson, 2011).

This analysis began with reviewing the initial assessment growth plan and client's goals, which I had planned to record. However, the clients were not comfortable with a recording device present, so detailed notes were gathered during the assessment process by the researcher, coaches, and staff. The formal assessments at 3 and 6 months were completed using a collaborative approach. Notes were constructed from the weekly staff evaluations of the client's behaviors. The data were coded to the specific individual client. Safeguarding participants and their data is the primary responsibility of the researcher (Sutton & Austin, 2015). Prior to beginning research, procedures for safeguarding were approved by the Institutional Review Board. The analysis consisted of textual and structural interpretation. One of the first steps in the analysis was for the researcher to describe her own experience with clients with ASD in a community based setting to identify personal prejudices and judgments so the process of analysis would not be affected (Padilla-Diaz, 2015).

This study has the potential to fill a large resource gap in working with young adults with ASD. Insight into this curriculum, current resources, and applicable tools when working with the young adults with ASD in a community setting will be beneficial for other similar programs. The resources identified in this study may also support families that choose to keep their young adult with ASD in the home rather than in a residential facility.

Materials

Additional resources have been implemented at CML to complement the life skill curriculum. Neurofeedback, or also known as Brain Mapping, is part of the initial assessment., should the client choose to participate. Angie Shockley, CEO of CML, explained neurofeedback

as a non-invasive process and the client's participation was voluntary. Neurofeedback is not a diagnostic tool and is for the purpose of evaluation related to EEG bio-feedback. Results include emotional, executive, visual, memory, and verbal feedback to help clients process their life experiences. The clients participating in this adjunct process self-reported a positive difference in their mood, focus, relaxation, and processing of their challenges, and staff also reported differences within the clients who participate in the neurofeedback. Angie Shockley, CEO of Q&A Associates and CML, explained the reason for adding the neurofeedback to the program services:

Most of our young adults are dealing with high levels of anxiety, so adding Neurofeedback to our program services allows them an additional option for calming the central nervous system and retraining the brain, creating the space and capacity to make better decisions, responding with thought, rather than reacting from emotion.

Neurofeedback is complemented by the Sensory Room. Heighten sensory responses, although not unique to ASD, were found in the clients. Varying in intensity, tactile, visual, and auditory sensitivities are common (Crane et al., 2009). This room provides an environment for those clients experiencing sensory overload to self-soothe and re-set before acting out behaviors occur.

The use of a "token economy" provides the opportunity for clients to learn to save tokens for specific items available in the Token Store. Tokens are positive reinforcement for doing assigned chores, participating in the morning activity, showering, dinner, evening activity, and compliance with "lights out." The Token Store is open twice a day at specific times at CML.

Daily scheduling is an important component for the clients at CML. The daily schedule provides the clients with knowledge of the events of the day and structure. According to CML staff and life coach, the posted schedule has been beneficial in decreasing anxiety, understanding

expectations, and providing a sense of security for the clients. This schedule includes the planner meeting in the morning to review the day's activities and a reflection time in the evening. CBI had been incorporated in the schedule prior to COVID-19 and will resume once restrictions are lifted.

The life skill curriculum skills assessment and content of the curriculum is outlined in Appendix A. This is followed by a general weekly review of progress in Appendix B when changes are noted by staff. The curriculum was modified for individual clients to meet their specific needs and goals.

Interviews

The young adult clients with ASD were interviewed and found by the researcher to have a range from low functioning to high functioning ASD. Dichotomous questions that required yes/no responses encouraged the lower functioning or non-verbal ASD client to participate. The higher functioning ASD clients were asked to elaborate to the best of their ability on the dichotomous questions. The questions below provided insight into the baseline functioning of each client and provided time to gain rapport with the clients. Rapport is important when working with clients, as trust is a key to the client's open and honest communication and important to the validity of the study.

1. Will you introduce yourself to me?
2. Why do you think you are here?
3. What are your favorite things to do?
4. What was your favorite subject in school?
5. Do you understand what your gift is? Music, Art, Math, etc.
6. Do you like to meet new people? Why, why not, do not know

7. Tell me about your family? Parents, Siblings, Grandparents, etc.
8. Do you like to read? Will you share what types of reading material you prefer?
9. Can you tell me about your friends?
11. Have you ever lived by yourself? Where?
12. Have you managed your own money? Savings Checking Debt Card
13. Do you know how to keep yourself safe? What steps do you take?
14. Have you been in a romantic relationship? Can you describe this?
15. What do you do when you get angry?
16. Have you ever been employed?
17. Do you have a driver's license or state identification and from what state?
18. Can you describe you and your family's spiritual or religious activities?
19. Have you worked with animals before? Dog, Cats, Horses
20. What question do you have of me?

The initial interview was held in an office at Cabin Mountain Living where there was privacy and minimal distractions. The questions were formatted to accommodate the non-verbal ASD clients, enabling them to answer yes or no. The higher functioning ASD clients were encouraged to elaborate on their answers. The interview session provided a baseline of functioning and the opportunity for the researcher to gain rapport with the client. Subsequent interviews, assessments, and observations were conducted by key staff and coaches secondary to the COVID-19 restrictions. The exit interview was conducted by the researcher in person, following COVID-19 protocols.

Document Analysis

The document analysis was completed through a variety of sources. This included initial assessments, interview notes that were transcribed, mentor input regarding the specific ADLs the client had achieved, client evaluation of growth plan, and goals.

Specifically, assessment included the life skill curriculum, CBI, and other activities currently carried out that co-occurred and supported the life skill curriculum and clients' progress. The analysis focused on the clients with ASD participating in the program; ethnic, and spiritual background of the clients, and staff competency to technically and emotionally support the life skill curriculum in real time was determined by the client outcomes. As a whole, the collection of the individual analysis, interviews, and evaluation provided information supporting the effectiveness of life skill curriculum at CML.

Observations

The researcher and staff performed client-centered observations. Planned visits were scheduled for the initial assessment, 3-month and 6-month marks, and exit interview; however, only the initial assessment and exit interviews were conducted by the researcher secondary to COVID-19 restrictions. Visits, although initially planned, did not occur bi-weekly throughout the entire study period secondary to the restrictions.

The descriptive field study was studied in real-time in the client's setting. The study is high in external validity secondary to the participants as it was taken "directly from the population of interest" (Heppner et al., 2016, p. 185), the young adults with ASD attending the CML program. The study was low in internal validity; the variables were studied as they occurred and were not manipulated (Heppner et al., 2016).

The observations were documented in the researcher's journal in real time to ensure accurate and detailed descriptions. These descriptions are concrete and detailed. A description of each client by an alias name with limited identifying information to ensure confidentiality was included. Observations included the treatment history of the client, client behaviors, appearance, and mannerisms. Communications were not electronically recorded; however, detailed notes were taken. Non-verbal communication was present and specific behaviors were documented and interpreted carefully for clarity of communication (Greenbank, 2003). The staff was knowledgeable of each individual's method of non-verbal communication and what it meant.

The reflective fieldnotes are the researcher's impressions, prejudices, problems, corrections, and any other ideas related to what was learned in the inquiries. These notes were included in the journal of the descriptive field study, including fieldnotes presented by key staff and coaches for continuity and clarity (Patton, 2002; Stake, 2010).

Data Analysis

Qualitative data analysis is a challenging component of the research process. The data analysis is an individual process (Casterlé et al., 2012). The analysis was based on the clients' meeting their individual goals as described in the initial contact. The descriptions of the analysis included narratives, summary tables, and diagrams of practical significance supported by data achieved during the study. The analysis provided evidence of the program's impact on individuals, which does not necessarily suggest direct causality, meaning the program is responsible for changes. Direct causality would require a more robust evaluation design that included a control group (Lazar et al., 2017). Despite this significant limitation, interpretation of data will assist in the expansion of services and ways in which to market the program.

Trustworthiness

Trustworthiness was established through the following four items: credibility, transferability, dependability, and confirmability. Meeting the criteria of these four items is important in evaluating the studies worth (Lincoln & Guba, 1985).

Credibility

Credibility is the “confidence in the truth of the findings” (Lincoln & Guba, 1985, p. 304). In this study, prolonged engagement, persistent observation, referential adequacy, and triangulation were the techniques used to establish credibility. Prolonged engagement provides the scope of the study. The technique refers to spending sufficient time in observation of the clients in the setting, building rapport with the clients and staff, and demonstrating the ability to rise above the researcher’s own preconceptions. Persistent observation provides the depth of the study through persistent observation to identify elements and characteristics most relevant to each client participating in the study (Lincoln & Guba, 1985).

Referential adequacy is the technique identifying a “portion of the data that will be archived, but not analyzed” (Lincoln & Guba, 1985, p. 305). Preliminary findings were based on the remaining data to be analyzed. Once this was completed, the researcher returned to the archived data to analyze, providing additional validity to the findings (Lincoln & Guba, 1985).

Triangulation is used to ensure the study is comprehensive and well-written. The two methods that were used included methods triangulation and triangulation of sources in this study. Methods triangulation checks consistency through different qualitative data collection methods. Triangulation of sources examines the consistency of various data sources from the same method achieved through different points in time and the community and home setting (Denzin, 1978; Patton, 1999).

Dependability and Confirmability

Dependability demonstrates that the findings from the study are consistent and could be repeated. The life skill curriculum was used as a basis for consistency in the evaluation as the curriculum was the same for each client. The variable is whether or not the client meets the requirements of the curriculum, demonstrated by internalizing the content and following through (Lincoln & Guba, 1985). Triangulation is the concept of using multiple data sources to produce understanding, supporting confirmability. The same components are detailed in credibility (Denzin, 1978; Patton, 1999). This included an audit trail, the clear description of research design and data collections supported by the steps necessary to manage, analyze, and report the data (Malterud, 2001).

Transferability

Transferability is defined as the degree in which the results of the research can be transferred to other programs. This was substantiated by a “thick description” strategy constructed through the context of behavior and experiences of the clients so they become meaningful to others (Lincoln & Guba, 1985; Moser & Korstjens, 2017).

Ethical Considerations

Confidentiality supersedes all aspects of this study. It was imperative to protect the identity of participating individuals and ensure quality. Integrity of research was guided by confidentiality, integrity, and transparency. All data provided by client and staff were locked in a cabinet, email was on a secure server specifically for this program’s use and will only be shared with the CEO. It will be the CEO’s responsibility to determine key staff that would benefit from the findings.

IRB approval was obtained prior to the start of the study. Clients and parents completed and return the informed consent and the CEO provided written approval for this study.

Summary

The purpose of this phenomenological qualitative study was to evaluate and validate whether the curriculum for life skills at CML is effective in increasing independence of young adult and adults with ASD. The qualitative criterion in this study included credibility, transferability, dependability, and confirmability of the study as recommended by Guba's four criteria for trustworthiness (Shenton, 2004). The data collection occurred through client interviews, observation of clients by key staff and coaches, and the demonstrated ability to integrate the use of learned life skills into everyday life.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this phenomenological study was to evaluate the effectiveness of the Life Skill Integrated Model designed for young adults with ASD at the private program in West Virginia known as Cabin Mountain Living Center. Assessment of the progress of clients with ASD in the short term (3 months) and intermediate term (6 months) was conducted following the initial assessment interview. Information for the study was obtained through the assessment of skills and interviews with clients, coaches, and mentors. The significance of this study empirically evaluated the life coaching, mentoring, and teaching of specific life skills as a viable model in promotion and enhancement of each client's transition from dependence to independence in a safe environment.

Chapter Four presents findings of this qualitative study from interviews with clients, mentors, and coaches. Data collection included in-person interviews, observations, notes from the interviews, and written reports on each client's progress from mentors and coaches. The researcher then summarized, organized, and identified participants, coaches, and mentors. Themes were identified from the collected data.

Participants

The eight clients consisted of three males and five females, seven Caucasian and one Latino with ages ranging from 19 to 30. The life coaches, mentors, and teachers are all employees of the Cabin Mountain program. Pseudonyms for all participants were utilized to protect the identities of all participants. A narrative of each participant is presented in the following sections.

Abby

Initial Interview and Goal(s)

Abby is a 24 year-old female with the diagnosis of ASD and co-morbid diagnoses of anxiety, ADHD, binge eating, PDD, and OCD. She is a high school graduate and enrolled in CML in 2019. Abby participated in another program prior to enrolling in CML.

On the initial interview, Abby was cooperative and open; however, she did not want to be recorded. Pushing her to allow recording risked losing rapport and was a challenge the researcher chose not to engage in, but instead detailed notes were taken during observations and conversations. Not unlike her peers, Abby's main goal is to become more independent, but she will most likely be unable to live independently without some assistance for the remainder of her life. The life skill curriculum provides her with awareness and knowledge of reaching her highest level of potential independence. Her parent's goal is for her to "have a place with a strong external structure that can help her to thrive and be happy."

Life Skill Assessment

For the initial review of her skills, the Life Skill Inventory and Independent Living Skills Assessment found in Appendices A and B were used.

Category A: Money Management and Consumer Awareness. Abby was assessed to be at the basic level. Abby identified currency and articulated the basic information regarding managing money and the difference between the regular and sale price of items and the use of coupons to save money. She is working on understanding the difference between wants and needs and preparing a budget.

Category B: Food Management. Abby was at the intermediate level. Abby understands the importance of washing her hands before preparing food and eating. She was able to articulate

the names of the different kitchen utensils and what each one is used for. Abby is able to make a weekly meal plan and a grocery shopping list from that plan; however, the staff shop for her secondary to her binge eating and stealing food. She is working on creating a balanced diet, low in carbohydrates and sugar.

Category C: Personal Hygiene and Appearance. She was at the advanced level. Abby is able to take care of her personal hygiene without assistance. She does her own laundry and is working on consistency in self-care and hygiene (i.e., wearing clean clothes daily).

Category D: Health. Abby was at the advanced level. She articulated the importance of not taking someone else's medication and the harmful effects of drugs, alcohol, and tobacco to her health. She was able to describe symptoms of a cold and other common health problems and how to treat minor cuts. She was able to articulate her medications and why she takes medications. Abby is working on maintaining regular exercise and improving her eating habits to maintain a healthy weight.

Category E: Housekeeping. Abby was assessed to be at the intermediate level. Abby understands the importance of maintaining a clean environment. She changes her bed linens weekly. She is working on consistency in properly cleaning and maintaining her immediate environment.

Category F: Housing. Abby was unable to articulate any of the milestones in this category and stated, "I will never be able to live on my own."

Category G: Transportation. Abby was at a basic level. Abby explained the importance of seat belts and regularly uses the seatbelt correctly when in a vehicle. She stated she would not be obtaining a driver's license as it is "too stressful and not safe."

Category H: Educational Planning. Abby was at the basic level. Abby reported she has completed high school and is focused on creating a business to sell her jewelry and other items made from her passion for beads and beading.

Category I: Job Seeking Skills. Abby was at the intermediate level. Abby articulated how a standard job application is completed. She was not aware of types of jobs in the area and will work on understanding specific jobs that are available in the area. However, her focus was on creating her own business to produce income.

Category J: Job Maintenance Skills. Abby was at the basic level. When asked if she would report to work on time, Abby answered, "The best I could." She will continue to work on the importance of being on time for a job, event, or other obligations.

Category K: Emergency and Safety Skills. Abby was at the basic level. Abby articulated what 911 calls were and the function of police, emergency medical services, and the fire departments. She stated she had health class in school and completed CPR training; however, there was no documentation to indicate she had the ability to perform this task. She will continue to work on ways she can maintain her safety when faced with different emergencies.

Category L: Knowledge of Community Resources. Abby was at the basic level. Abby had limited knowledge of the community resources. When asked if she had registered to vote, she stated, "No, I am not interested in voting."

Category M: Interpersonal Skills. Abby was at the intermediate level. She was able to identify her weakness and stated, "I binge eat. I am addicted to food and this is not good." She was unable to identify her strengths. She demonstrated her ability to introduce herself and answer simple questions. She is working on maintaining eye contact when she speaks and the importance of not interrupting others when they are speaking. She understands she has difficulty

with communication and is often impatient; she is working on those skills.

Category N: Legal Issues. Abby was at the basic level. Abby has limited skills in this area; however, she is able to discern right from wrong.

Category O: Family Planning. She was not comfortable discussing pregnancy and family planning.

After Abby's initial assessment, her life coach and mentors helped her develop goals for each of the categories. Her priorities included understanding the difference between wants and needs, budget preparation, consistency in everything she does successfully, and communication.

3-Month Review

The 3-month interim report by staff indicated Abby was working on the intermediate skills of Categories A, D, and E (money management/consumer awareness; health; housekeeping). She was working on the advanced skills of Categories B, C, and M (food management, interpersonal skills, and personal appearance and hygiene, although she continued to need help with self-care). Abby continued to have challenges with food, table skills, sanitary practices in the kitchen and appropriate communication with the exception of a noted improvement in conflict management skills and social skills. Her coach stated, "Abby is improving with her social skills and time management as she uses her watch." Being timely had been a challenge for Abby and impacted others when she was late for various activities. At the 3-month review, her mentors determined that Abby was demonstrating significant progress in her time management: "Abby is attending 95% of the morning meetings to review her daily activities and responsibilities" (maintaining a healthy environment, participating in activities, and continue to work on her ability to not interrupt when spoken to). Abby continued in the basic categories of F, G, H, and J (housing, transportation, educational planning, and job maintenance skills). There

was little progress in Categories K, N, and O (emergency and safety skills, legal skills, and family planning). Her knowledge of Category L (community resources) was impaired by the COVID-19 restrictions.

At this review, it was reported that Abby had worked on her earlier goals she developed with staff. She made significant progress in the money management (Category A) and was working at the intermediate level. She made progress in consistency and more effective communication skills. Abby, her life coach, and mentor developed further goals to strengthen her communication skills, continue being consistent, and work on healthy eating habits.

6-Month Review

The second interim report at 6 months found Abby remaining primarily at the basic and intermediate levels in most areas. Abby continued to do better with her communications demonstrated by her ability to let others speak without interruptions. Her coach stated, “This is particularly noticeable at the Tech Center and with her weekly parent calls. She is listening more to what others are saying.” She was obsessed with time as it related to meals and was focused on the daily mealtimes. She was walking daily to maintain her weight; however, she continued to sneak food, which is a secondary symptom to her diagnosed eating disorder. With a great deal of support, she was doing better with her personal hygiene. She required a great deal of support in completing her laundry and household cleaning tasks. She could not work at the time because of her stealing and was focused on being trustworthy. Although Abby improved in not hoarding or stealing food, this continued to be a reoccurring challenge for her. Her Life Skills coach indicated that food issues were an area where Abby is consistently going to be challenged secondary to her eating disorder, and Abby was aware of the challenges ahead in maintaining a healthy diet. Abby was reminded daily that food will always be plentiful, but like other clients

with ASD, food is a challenging issue. In a recent study by Spek et al. (2020), they found there was limited available literature focusing on the clinical importance of eating problems in adults with ASD.

Exit Interview and Goals

During the final exit interview, this researcher was able to participate directly with clients for data collection. Growth in Categories A, B, C, and M were noted and recognized by Abby; otherwise, her achieved levels in the other categories remained unchanged. Abby stated, “I am continuing to work toward becoming independent and be more active.” She was excited about operating her own business and creating a website on Etsy to sell her jewelry. This would incorporate a number of the skills she is learning with regard to money, time management, honesty, and understanding what others may request for jewelry. She stated, “I am continuing to work on improving my communications and patience.” When asked if there were any changes or suggestions she would like to see with how she was progressing at CML related to the life skill curriculum and community based learning, she stated, “None.”

Abby is looking forward to the COVID-19 restrictions being lifted in the future. At the end of the program, Abby recognized her need to adjust her plan for independent living and determined she will need to be at Cabin Mountain Living long-term. She stated she is continuing to work on her behaviors, personal hygiene, responsibilities, and not stealing food.

Table 2

Summary of Abby’s Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Basic	Intermediate	Intermediate
B: Food	Intermediate	Intermediate	Intermediate

C: Hygiene	Advanced	Advanced	Advanced
D: Health	Intermediate	Intermediate	Intermediate
E: Housekeeping	Intermediate	Intermediate	Intermediate
F: Housing	Basic	Basic	Basic
G: Transportation	Basic	Basic	Basic
H: Education	Basic	Basic	Basic
I: Job Seeking	Intermediate	Intermediate	Intermediate
J: Job Maintenance	Basic	Basic	Basic
K: Emergency	Basic	Basic	Basic
L: Community	Basic	Basic	Basic
M: Interpersonal	Intermediate	Intermediate	Intermediate
N: Legal	Basic	Basic	Basic
O: Family Planning	Basic	Basic	Basic

Cathy

Initial Interview and Goals

Cathy is a 28-year-old female who was admitted in 2010 with the diagnoses of low IQ, reactive attachment disorder (RAD) and pervasive developmental disorder (PDD). Cathy is on medications for mood stabilization and impulsivity. She participated in a different residential program prior to enrolling at CML. She graduated from high school in 2009.

Cathy presented at the initial interview excited to be included in the study and was cooperative in the assessment process. She maintained eye contact throughout the session and was pleasant and polite. Her main goal is to become independent; Cathy stated, “I want to learn from my mistakes, continue weight loss, and exercise.” Her parents stated,

Cathy's long-term goal is to live as independently as possible. As her parents, we would like her to maximize her potential for a meaningful and productive life while remaining safe. The life skill curriculum [at Cabin Mountain Living] has helped her to become more aware of her challenges, recognize her emotions and make positive choices, deal with frustrations in positive ways, and identify and focus on short term goals that will lead her to where she would like to be. It can still be difficult for her to make good decisions when confronted with either temptation or strong emotions. However, she is definitely a "work in progress" and this is a lifelong journey.

Life Skill Assessment

The initial review of her skills demonstrated inconsistency in her skills as follows:

Category A: Money Management/Consumer Awareness. Cathy was at the advanced level. Cathy was able to identify coins and currency and understands the need to save money from her job to achieve her goal of independence; however, she still struggles with making change from the cash register at her job and continues to practice counting money. She self-reported being a good comparison shopper and is actively learning to clip coupons. Cathy's implementation of what she knows is not always consistent and can present a challenge, especially with currency and coins.

Category B: Food Management. Cathy was at the advanced level, and this is where Cathy has excelled. She fixes herself meals, makes her weekly meal plan and creates a shopping list from that plan, and is working on the maintaining a balanced diet, reporting a loss of 60 pounds this year of which she is very proud. She has also increased her exercise to help build her muscles, particularly in her abdomen.

Category C: Personal Appearance and Hygiene. Cathy was at the advanced level. Cathy dresses herself and showers regularly, sometimes in the morning or in the evening. Cathy's medications have weakened her teeth, so she is brushing more frequently to avoid cavities. She is self-sufficient in doing laundry, creating clothing utilizing the sewing machine, and wearing appropriate clothing for activities and events.

Category D: Health. Cathy was at the intermediate level. Cathy understands the importance of not taking another person's medications. She understands and articulated the dangers of drugs, alcohol and tobacco; however, she still smokes cigarettes periodically. Cathy recognizes when she is not feeling well and describes her symptoms, and is able to care for minor cuts and burns. She has video-appointments with her psychiatrist and is able to articulate what she is feeling and her current struggles. She is not responsible enough to be trusted to take her own medications; therefore, those are supervised for her and the other residents' safety.

Category E: Housekeeping. Cathy was at the intermediate level. Cathy demonstrated her ability to complete her chores and maintain her room. She participates in the household cleaning schedule and is now working on learning how to do minor household repairs and conservation of energy and water.

Category F: Housing. Cathy was also at the intermediate level. Cathy understands the concept of renting, the basic terms of lease, security deposit, references for a lease, inspection of the property prior to signing a lease, and the pros and cons of choosing a roommate. She is working on calculating start-up costs, moving expenses, and budgeting for utilities.

Category G: Transportation. Cathy was at the intermediate level. She has a basic understanding of vehicle safety, modes of transportation, the importance of scheduling trips, and is comfortable flying across the country by herself to visit family. Although she has completed

driver's education in high school, it is not safe for her to operate a motor vehicle as she has had difficulty maintaining her focus. She lacks the ability and consistency to keep everyone safe.

Category H: Educational Planning. Cathy was at the basic level. Cathy received her high school diploma prior to coming east to CML from a different residential program. She received on-the-job training at the program's restaurant and enjoys baking biscuits for the breakfast crowd. She also created and redesigned purses and other pieces of clothing to wear and sell.

Category I: Job Seeking Skills. Cathy was at the intermediate level. Cathy has done well with mock interviews, job application forms, wearing appropriate clothing, and understanding her paycheck is directly deposited to her savings account.

Category J: Job Maintenance Skills. Cathy was at the basic level. Cathy's greatest challenge is to not walk out of a job when it becomes challenging or quitting because she does not like her boss at the time. This comes in cycles for Cathy and she has been able to re-start in an effort to maintain her job.

Category K: Emergency and Safety Skills. Cathy was at the intermediate level. Cathy understands 911 calls and the functions of police, fire departments, and the ambulance. She understands basic fire prevention and how to use a fire extinguisher. She is working on knowing the different methods for putting out different kinds of fire and the proper storage of cleaning products and other materials.

Category L: Knowledge of Community Resources. Cathy was at the advanced level. Since Cathy has been with the program for 10 years, she is very knowledgeable of the community resources available in the area. She particularly enjoys going to the local library.

Category M: Interpersonal Skills. Cathy was at the intermediate level. Interpersonal skills remain a challenge for Cathy as she enjoys creating excitement in her life to gain attention by dragging others into her overreaction and exaggeration of events within the community. Cathy explained her reason for this turmoil: “I get bored.” Although Cathy is able to articulate the definition of healthy boundaries, she struggles with maintaining appropriate boundaries. She is learning to consistently resolve conflicts with others, express anger appropriately, and demonstrate critical thinking skills. Cathy is overall very kind and thoughtful to others and the animals at the farm.

Category N: Legal Issues. Cathy was at the intermediate level. Cathy understands right from wrong and that there are consequences to her choices.

Category O: Pregnancy. Cathy was at the exceptional level. Cathy has attended family planning classes and had an implant for birth control. She was aware of the options available and chose this method as suggested by her parents and the Family Planning Clinic.

At the end of the assessment, Cathy, her life coach, and mentor created goals to include working on consistency throughout all the categories. Her goals for Category A included identification of coins and currency, saving money, and discerning wants versus needs instead of impulse purchases. In Category E (housekeeping), her goals included the ability to make minor repairs and the importance of energy conservancy. In Category J (job maintenance), she planned to work on maintaining consistency with her attendance and completion of her shifts instead of walking out of her job. For Category F (housing), Cathy’s goal was to continue working on housing costs and budgeting for independent living.

3-Month Review

At the 3-month interval, Cathy continued to work on Category A (money management). She still struggled regarding identification of coins and currency. The importance of saving money for her goal of independence was fleeting when she saw something she wanted. She remained consistent in the advanced to exceptional level of task accomplishment and implementation for Categories B, C, D, E, and O (food management, personal appearance and hygiene, health, housekeeping, pregnancy). She remained consistent at the intermediate level for Categories F, G, I, and K (housing, transportation, job seeking skills, emergency and safety skills).

Category J (job maintenance) is an area Cathy was working on to rebuild trust with her employer to return to work and stay on the job until the end of her shift. Cathy had struggled with moving forward with implementation of her interpersonal skills (Category M). Staff reported Cathy had experienced significant emotional dysregulation; she participated in physical altercations with another client, including name calling, suffered from nightmares about her grandmother, insomnia, and self-harm (cutting). She continued to insert herself into other clients' issues, or "drama," and demonstrated overdramatic responses to often minor incidents, which gained the attention of others. The negative behaviors were not new; however, they were much less frequent than they had been in the past. Cathy's behavior and knowledge of what she had learned was reported to have a cyclical pattern with some days better than others, including her short-term memory and ability to recall tasks she has already mastered. Staff continued to support her in learning and practicing her life skill curriculum while maintaining a sense of calm which is supported by the neurofeedback portion of the curriculum.

Following the 3-month review, Cathy, her life coach, and her mentors determined the primary focus should be placed on interpersonal skills and consistency throughout all of the categories.

6-Month Review

At the 6-month review, Cathy made substantial progress in her interpersonal skills and no further fighting was reported. Although Cathy could articulate many of the tasks associated with Category A (money management), her implementation remained inconsistent. In Category D (health), Cathy is hyper-focused on exercising, being healthy, and maintaining preventative health measures. Cathy has improved in Category J (job maintenance) with her time management, anger management at work, and how to resolve disagreements more amicably. Her growth has remained stable in the other areas of the curriculum.

Her life coach stated, “She has less running off [leaving the campus property and walking to town without letting anyone know where she is going while breaking the COVID-19 restrictions] and is doing better overall [behaviorally].” She was doing well attending the morning planning meetings, utilizing her planner, and maintaining her schedule. She continued to struggle with making change and “has no concept of the value of money.”

Exit Interview and Goal(s)

At her exit interview, Cathy’s goals of becoming independent, moving into a tiny home on campus, and continuing exercising were unchanged from her initial set of goals. She did not have any suggestions or changes she would like to see with how she was progressing at CML related to life skill curriculum and CBI. Cathy did indicate she is looking forward to the COVID-19 restrictions being lifted so she and the other clients can go to the grocery store, library, and movies. She did state, “The neurofeedback I have been doing has been helping me with calming

down.” Her coach and mentors stated, “There has been overall improvement in her behaviors, impulsivity, and she is better able to identify feelings as she continues with the neurofeedback program in addition to her medications.”

Table 3

Summary of Cathy’s Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Advanced	Advanced	Advanced
B: Food	Advanced	Advanced	Advanced
C: Hygiene	Advanced	Advanced	Advanced
D: Health	Intermediate	Advanced	Advanced
E: Housekeeping	Intermediate	Advanced	Advanced
F: Housing	Intermediate	Intermediate	Intermediate
G: Transportation	Intermediate	Intermediate	Intermediate
H: Education	Basic	Basic	Basic
I: Job Seeking	Intermediate	Intermediate	Intermediate
J: Job Maintenance	Basic	Intermediate	Advanced
K: Emergency	Intermediate	Intermediate	Intermediate
L: Community	Advanced	Advanced	Advanced
M: Interpersonal	Intermediate	Intermediate	Advanced
N: Legal	Intermediate	Intermediate	Intermediate
O: Family Planning	Exceptional	Exceptional	Exceptional

Donald

Initial Assessment and Goal(s)

Donald is a 30-year-old male, admitted to CML in 2017 with the diagnosis of ASD and generalized anxiety disorder (GAD). Donald graduated high school with one of his primary goals to enroll in a university in his home state. Donald had attended previous programs but chose to come CML. He had a history of being bullied when he was younger, accounting for his loss of control when he is angry. He had been working at the program's restaurant and was active in his church prior to the COVID-19 restrictions. His plan included obtaining employment when the restrictions are lifted and returning to church on a weekly basis. His goals included learning to become independent, completing college classes, going to church, and participating in a driver's education class. Donald was pleasant and cooperative during the initial interview.

Life Skill Assessment

Donald was proficient in articulating his skills assessment and the initial results of the Life Skill Assessment were as follows:

Category A: Money Management and Consumer Awareness. Donald was at the exceptional level. Donald is able to differentiate between wants and needs and "buys what I need in order to save money." He understands the value of money and has opened a local savings account. When questioned about tax preparation, Donald stated, "I do my own taxes."

Category B: Food Management. Donald was at the exceptional level. Donald fixes his own meals, maintains a weekly meal plan and grocery shops according to that plan, staying within his budget. He can use all of the kitchen appliances and utensils safely and effectively.

Category C: Personal Appearance and Hygiene. Donald was at the advanced level. Donald does his own laundry and articulated the appropriate clothing to wear for the weather and

activities. His daily self-care requires support; however, he has the capability to maintain his own self-care with assistance [reminders to brush his teeth, take a shower, wear clean clothes].

Category D: Health. Donald was at the exceptional level. Donald knows how to take care of a minor cut or burn. He recognizes signs and symptoms of colds and other common health problems. He demonstrates the knowledge of healthy eating habits but admits he does not always eat healthy. He exercises by walking almost daily. He is working on understanding Medicare and Social Security.

Category E: Housekeeping. Donald was at the advanced level. He reported having the ability to maintain a clean home, change his bed linens weekly, conserve water and energy, and perform routine cleaning.

Category F: Housing. Donald was at the intermediate level. He described the pros and cons of having a roommate as “help or trouble.” He started researching the type of housing that will meet his need and budget including start-up costs.

Category G: Transportation. Donald was at the exceptional level. Donald uses his seat belt when he is in a vehicle. He understands the different modes of transportation other than a personal vehicle (for example, train, taxi, and airplane). He stated he knew how to change the oil and check the battery in a vehicle and can change a tire. He is working on the cost of owning and operating a vehicle including maintenance, but he is unsure if he wants to obtain his state driver’s license.

Category H: Educational Planning. Donald was at the advanced level. Donald has his high school diploma and is enrolled in college for online classes. He stated he needed help in articulating a general idea of what education is needed for a desired job.

Category I: Job Seeking Skills. Donald was at the advanced level. Donald has a reasonable idea of what jobs are available and their location in the local area. He has completed the standard job application and conducted mock interviews giving appropriate answers to questions. He has also completed a job interview at a local resort and responded to questions and was appropriately dressed, resulting in his being successful in securing employment. He has also developed a resume. He still requires help with the necessary documents for employment and with completing his withholding form correctly.

Category J: Job Maintenance Skills. Donald was at the basic level. Donald dresses appropriately for work and reports to work on time. He understands his responsibilities and how to complete tasks assigned to him. If he does not understand a specific task, he will ask for help.

Category K: Emergency and Safety Skills. Donald was at the exceptional level. Donald knows the functions of the police, ambulance, and fire department and he understands the purpose of 911 calls. He knows how to use a fire extinguisher, understands basic fire prevention, and understands the different methods for putting out different kinds of fires. He has completed CPR and basic first aid classes.

Category L: Knowledge of Community Resources. Donald was at the intermediate level. Donald articulated how to get emergency information by telephone. He knows where the local grocery store and bank are located. He has demonstrated the ability to use the Internet as a resource to obtain information and has his library card.

Category M: Interpersonal Skills. Donald was at the exceptional level. Donald responded appropriately to simple questions and presented well with introductions and maintaining eye contact. He articulated healthy boundaries and asks for assistance when needed. He stated his personal strength is his faith, and his weakness is his anger. He is working on

expressing his anger appropriately and talking out problems instead of reacting. He does demonstrate empathy skills and treats others as he would like to be treated.

Category N: Legal Issues. Donald was at the exceptional level. Donald understands the function of an attorney. He knows there are consequences to negative actions such as trespassing, stealing, and use of illegal drugs.

Category O: Pregnancy. Donald was not comfortable talking about birth control or the family planning office.

3-Month Review

At the 3-month review, Donald had excelled in Category A (money management); he began earning money during the COVID-19 restrictions by cleaning vehicles. He was functioning above average in Category B (food management) with the exception of healthy eating; although he articulated what a healthy meal was, he continued choosing unhealthy foods. He was also engaging in more physical activity. In Category C (personal appearance), Donald had improved in consistent daily self-care with support. He also improved in Categories I and J (job seeking and job maintenance skills), as demonstrated by his initiative to begin cleaning vehicles to make money and to keep busy during the time of COVID-19 restrictions. In Category M (interpersonal skills), he showed improvement in self-awareness. He remained average in Categories F and N (housing and legal skills); for Donald to reach his goal of becoming independent, he would need to be at the exceptional level of Category F (housing), demonstrating a full understanding of the responsibilities of independent living. Category O (family planning) continued to be a sensitive topic for Donald and he chose not to discuss this category.

Following the interim assessment, Donald, his life coach, and his mentors adjusted his

goals to include a continued effort to eat healthy foods and continued growth in managing his anger appropriately. He was also working on reaching the exceptional level of Category F (housing).

6-Month Assessment

At the 6-month interval, Donald demonstrated advanced and exceptional levels. Only a few categories needed attention. Donald's report from staff noted his improvement in preparing and eating healthy meals with continued support (Category B). In Category M (interpersonal skills), Donald was above average as his communication and social skills had improved. He was employed at the property's restaurant, gaining significant growth in job seeking and maintenance skills (Categories I and J respectively). As the staff discussed healthy boundaries, the coach felt his "healthy boundaries were more from his religion than a true understanding." There has been a noted improvement since Donald began taking medication and participating in the neurofeedback program. His coach stated that the neurofeedback program has been beneficial for Donald as "demonstrated by less tics and stimming, a more coherent thought process, legible handwriting, and more organized plans and thinking." Donald stated, "Since participating in the neurofeedback program it helps me to be more relaxed."

Exit Interview and Review of Goal(s)

During the exit interview and review of goals, Donald's initial plans were unchanged, with the exception of the addition of proper hygiene, which was reported by his mentors to be less than adequate unless he was provided support (Category C). Donald will need to focus on Category F (housing) in order to meet his goal of independence. He will benefit from remaining consistent in all the areas where he excelled and was considered above average in his understanding and implementation of the skills associated with those categories. He did not have

any suggestions or offer any changes with how he was progressing related to the life skill curriculum nor did he have any questions.

Table 4

Summary of Donald's Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Exceptional	Exceptional	Exceptional
B: Food	Exceptional	Exceptional	Exceptional
C: Hygiene	Advanced	Advanced	Advanced
D: Health	Exceptional	Exceptional	Exceptional
E: Housekeeping	Advanced	Advanced	Advanced
F: Housing	Intermediate	Intermediate	Intermediate
G: Transportation	Exceptional	Exceptional	Exceptional
H: Education	Advanced	Advanced	Advanced
I: Job Seeking	Advanced	Advanced	Advanced
J: Job Maintenance	Basic	Intermediate	Advanced
K: Emergency	Exceptional	Exceptional	Exceptional
L: Community	Intermediate	Intermediate	Advanced
M: Interpersonal	Exceptional	Exceptional	Exceptional
N: Legal	Exceptional	Exceptional	Exceptional
O: Family Planning	Basic	Intermediate	Intermediate

Julian

Initial Assessment and Goal(s)

Julian is a 19-year-old male, admitted in 2018 with the diagnosis of ASD and comorbid diagnoses of ADHD, depression, and anxiety. Julian did not complete high school; however, we discussed the benefits of the Test Assessing Secondary Completion (TASC) exam that is available through the state of West Virginia. Julian attended two programs prior to enrollment in CML. During the initial assessment, Julian was polite and maintained eye contact. He was very verbal about the farm animals and the past birth of 13 piglets. He was proud of the amount of money he had saved from working on the farm, and he stated he enjoyed the work there, particularly doing the mowing. He was very excited to learn how to tie flies to make additional money. He was pleasant and engaged during the initial interview. His primary goal was to learn to live independently. Julian's parents wrote, "He has made significant progress in understanding his challenges, but he continues to need an environment that provides structure and support . . . getting the needed advice and feedback as he learns how to manage new demands and stressors in his life."

Julian enjoys the outdoors, stating his gift was "outdoorsmanship," and was reported to be very active with fishing, caving, hiking, and was saving his money for a mountain bike at the time of the study. When he was in school, physical education was his favorite subject. His initial goals were to save money, learn to tie fishing flies to sell as additional income, and gain employment.

Life Skill Assessment

Julian's Life Skill Assessment results were as follows:

Category A: Money Management and Consumer Awareness. Julian was at the advanced level. Julian successfully identified the value of currency and coins. He understands the difference between wants and need and looks to save money by purchasing “off brands.” He has opened a savings account; saving money is important to Julian, and he comparison shops to determine the best value. He has developed a budget for regular weekly expenses and is working on understanding payroll deductions and taxes and creating a budget for emergency funds and seasonal bills.

Category B: Food Management. Julian was at the exceptional level. Julian has excelled in food management. He fixes his own meals and helps when there is a community meal. He makes a meal plan, and his grocery list reflects his meals. He understand the safe use of kitchen utensils and demonstrated the safe and effective use of all kitchen appliances.

Category C: Personal Care and Hygiene. Julian was at the exceptional level. Julian demonstrated the ability of self-care, appropriate dress, maintaining his schedule for doing his laundry, and wearing appropriate clothing for the weather and other activities and events.

Category D: Health. Julian was at the intermediate level. Julian recognized and described the symptoms of colds and other common health problems. He can take care of a minor cut or burn. He understands the risks and effects of substance and alcohol abuse. He is working on independently scheduling appointments for doctor, dentist, and other health related health care providers. He understands the importance of insurance. He takes his medications with supervision as a safety measure for the community.

Category E: Housekeeping. Julian was at the advanced level. Julian demonstrated his ability to maintain his living space, the community area, and perform simple repairs.

Category F: Housing. Julian was at the intermediate level. Julian is working on understanding terms of a lease, calculating cost associated with different types of housing, and how to find housing through want ads or local postings. He has a clear understanding of the pros and cons of choosing a roommate. He is working on the differentiation of the responsibilities of the lessor and lessee.

Category G: Transportation. Julian was at the intermediate level. Julian uses seat belts when he is in a vehicle. He understands the differences between different modes of transportation: bus, taxi, air, or train. He planned to learn how to do basic car maintenance and estimating the cost of owning and operating a vehicle.

Category H: Education. Julian was at the basic level as he has not graduated from high school. There have been discussions with his life coach on the availability of the TASC exam in West Virginia (similar to the GED).

Category I: Job Seeking Skills. Julian was at the advanced level. Julian is a hard worker and enjoys working with his hands. He maintained eye contact when he participated in a brief mock interview. He is working on understanding employment forms, discrimination, sexual harassment, and the associated consequences. He has developed his resume.

Category J: Job Maintenance Skills. Julian was at the intermediate level. Julian understands his job responsibilities and expectations. He dresses appropriately for work and knows how to contact his employer when he is not able to go to work. His coach stated, "Julian is working on accountability on the job and addressing his mistakes without being a victim."

Category K: Emergency and Safety Skills. Julian was at the intermediate level. Julian understands basic fire prevention and the use of a fire extinguisher. He knows the functions of emergency services, ambulance, fire department, police, and the appropriate use of the 911 call

system. He is working on understanding the different methods for putting out different kinds of fires and proper storage of flammables.

Category L: Knowledge of Community Resources. Julian was at the basic level. Julian understands the basic community resources and support available to him. He has obtained his voter registration card. When the COVID-19 restrictions are lifted, he will be able to increase his knowledge of available resources in the community through CBI.

Category M: Interpersonal Skills. Julian was at the intermediate level. Julian articulated his personal strength as “I have a good work ethic” and his personal weakness as “advocating for myself.” He understands interpersonal conflicts; however, his mentors stated, “Julian loves drama [an exaggerated and overreactive response to events in the community]” and his coach and mentors reported that he is learning to have healthy relationships and boundaries.

Category N: Legal Issues. Julian was at the advanced level. Julian articulated an understanding of legal issues and the associated consequences.

Category O: Pregnancy. Julian was at the intermediate level. When Julian was asked if he understood the resources for birth control, options, and family planning, he answered, “For the most part.”

At the end of the assessment, Julian, his life coach, and his mentor reportedly developed plans for meeting his goals to include advocating for himself and accountability instead of blaming others. It was explained to Julian that when he makes a mistake, he can be a victim or take the opportunity to learn from that mistake and move forward.

3-Month Review

Julian was functioning at the advanced and exceptional level in most areas. His coach and mentors stated, “Julian engages in a lot of fishing, getting outside to work, hiking and caving. He

is very active.” He was able to stay busy and take advantage of what he could do during the COVID-19 restrictions instead of focusing on what he was limited to do. Julian continued to work at the advanced and exceptional levels in the life skill curriculum with the exception of Categories L and M. Category L (community resources) will resolve once restrictions are lifted and CBI can continue in the surrounding communities. In Category M (interpersonal skills), he continued at the intermediate level; he had a good work ethic but did not advocate for himself consistently.

6-Month Review

Julian continued at the advanced to exceptional level in his life skill curriculum. The 6-month review by his coach and mentors found Julian understood and was good at managing his money, especially his savings account. He had been utilizing his planner and doing well keeping track of his work time on the time sheet. His mentor stated, “Julian needs support with using his inside voice and his interrupting when others were talking. However, overall he is doing better.” He started volunteering for Saddles & Smiles, a non-profit, “providing equine assisted learning opportunities for at-risk students, youth with ASD, and other mental health struggles while providing education and training for families of these struggling youth,” according to the founder of that program. Julian’s primary focus has been on Category M (interpersonal skills), specifically accountability and practicing how to maintain healthy relationships and boundaries.

Exit Interview and Goals

At the final exit interview, Julian continued with improvement in Category M, his impulses, actions, and accountability. The staff at CML noted Julian was “less impulsive and continues to do better [with] consistently working.” He presented self-confidence and looked forward to continuing his work at a local resort. His goals were to continue saving money and to

obtain a job at a new resort opening in December for the 2020–2021 winter season. He was continuing to work toward living independently. His suggestion was he would like to spend more time at the Transition, Education, and Coaching Center (TEC) where he works on life skills and other assorted projects.

Table 5

Summary of Julian's Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Advanced	Advanced	Advanced
B: Food	Exceptional	Exceptional	Exceptional
C: Hygiene	Exceptional	Exceptional	Exceptional
D: Health	Intermediate	Intermediate	Advanced
E: Housekeeping	Advanced	Advanced	Advanced
F: Housing	Intermediate	Intermediate	Advanced
G: Transportation	Intermediate	Intermediate	Advanced
H: Education	Basic	Basic	Basic
I: Job Seeking	Advanced	Advanced	Advanced
J: Job Maintenance	Intermediate	Intermediate	Advanced
K: Emergency	Intermediate	Intermediate	Advanced
L: Community	Basic	Intermediate	Intermediate
M: Interpersonal	Intermediate	Intermediate	Advanced
N: Legal	Advanced	Advanced	Advanced
O: Family Planning	Intermediate	Intermediate	Advanced

Louise

Initial Interview and Goal(s)

Louise is a 26-year-old female who enrolled in CML in 2016 with the diagnosis of fetal drug/alcohol syndrome. She has comorbid diagnoses of nonverbal learning disorder (NVLD), posttraumatic stress disorder (PTSD), and low IQ. Louise was pleasant and cooperative during the initial assessment and interview. Her goals consisted of “work on her photography as an income, sing, get married, and work on shyness.” She did not present as shy during the assessment; instead, she was very forthcoming with information during her interview and assessment. Louise’s parents noted one of her strengths was how strong she is and her strength has been an asset for her during challenges she has faced.

Life Skill Assessment

Louise’s Life Skill Assessment results were as follows:

Category A: Money Management and Consumer Awareness. Louise was at the intermediate level. Louise is unable to identify the value of coins or currency; however, she does understand the differences between wants and needs and regular and sale prices. She has developed a budget and works to maintain the budget.

Category B: Food Management. Louise was at the advanced level and excels at food management. She washes her hands before preparing food and eating, she uses kitchen utensils and equipment, and she prepares her own meals. She manages her grocery money and makes her grocery list from the weekly menu she creates.

Category C: Personal Care and Hygiene. Louise was at the advanced level; she stated she bathes every day and maintains her personal hygiene. She dresses appropriately for the weather and activities and she does her own laundry.

Category D: Health. Louise was at the advanced level. Louise understands the importance of not taking another person's medications. She recognizes the symptoms of common health issues and can treat herself for a minor burn or splinter. She takes care of self with minor illness or injury, making appointments with her health care workers and maintaining good health habits such as healthy eating, exercise, and other health preventive measures.

Category E: Housekeeping. Louise was at the advanced level. She is able to wash dishes, change a light bulb, and make her bed. She is capable of running a vacuum cleaner and mopping floors. She cleans the bathroom and understands what cleaning products are used for different jobs.

Category F: Housing. Louise was at the basic level. Louise stated she did not know about any of the tasks in this category; however, she did live by herself for two years according to her history.

Category G: Transportation. Louise was at the intermediate level. Louise wears her seatbelt when in a vehicle and understands the different modes of transportation. She completed driver's education in high school although she did not obtain a license. She was not able to articulate basic vehicle maintenance and repairs.

Category H: Education. Louise was at the basic level as she completed high school. She is pursuing the technical side of education with a focus on photography.

Category I: Job Seeking Skills. Louise was at the intermediate level. Louise has successfully completed applications, dressed in appropriate clothing for interviews, and developed a resume. She has completed an actual job interview. She was unable to answer questions concerning employment forms or payroll information.

Category J: Job Maintenance Skills. Louise was at the intermediate level. Louise struggles with maintaining a job; however, she understands the importance of reporting to work on time and dressing appropriately for the position. She stated she does not know how to read or understand her payroll check.

Category K: Emergency and Safety Skills. Louise was at the intermediate level. Louise understands when to call for emergency services and the functions of each department: police, fire department, and ambulance. Her weak areas are in fire prevention and first aid.

Category L: Knowledge of Community Resources. Louise was at the advanced level. Louise has a good working knowledge of the resources available within the community. She knows where the library, clinic, post office, and bank are locally. She has the ability to use a computer as a resource to obtain information if she chooses to do so.

Category M: Interpersonal Skills. Louise was at the intermediate level. Louise uses good eye contact when speaking with others and does well introducing herself and answering questions. Her weak areas are maintaining healthy boundaries, identifying healthy and unhealthy relationships, and refraining from violence when she is angry. She has had a couple of instances of physical altercations with others who have angered her.

Category N: Legal Issues. Louise was at a basic level. Louise understands the difference between right and wrong. She also understands there are consequences to her actions, both positive and negative. She was unable to articulate the day of the interview any of the tasks associated with this category.

Category O: Pregnancy. Louise was at the basic level. She did not answer the questions associated with this category; however, her mentors and coach indicated she was well aware of

resources and options for birth control and the location of family planning as she obtains her birth control from that office.

3-Month Review

At the 3-month review, Louise was continuing to work in the intermediate and advanced level of Categories A, B, C, D, E, G, I, J and in the basic to intermediate levels of Categories F, L, N, O. It was apparent she has more knowledge than she was sharing regarding independent living, since she did live by herself for approximately two years, has been at the program and participated in a number of CBI sessions, and is quite efficient at locating different resources like the library, one of her favorite spots prior to COVID-19, the local store, the clinic, and the bank. In Category O (family planning), Louise has been on birth control injections for the past few years and understands why she is using this method.

Louise and her mentor and coach created goals for her following the 3-month follow up. The goals included Louise as a participant in the neurofeedback program for anger and patience; she also started a new medication to help with self-regulation. She was working on healthy boundaries. Her coach wrote:

Louise has a more positive attitude, dressing more appropriately, her personal hygiene has improved, and she increased her activities. She enjoys walking however, she has been found walking off the property to strangers' homes, creating a safety issue. She continues to not make healthy life choices and she does not engage in behavior associated with self-awareness. She continues to struggle with relationships specifically, in relation to physical altercations.

6-Month Review

At the 6-month review Louise was at the intermediate to advanced levels in most of the categories. In Category A, Louise was struggling with wants versus needs and had been working with her life coach weekly with additional support from her mentors. Louise remained in the intermediate level of Category A; she had been working on maintaining a savings account but did not seem to comprehend the benefits of saving money. She was utilizing her planner to work on time management to develop in Category J. Louise continued to need support with her budget and identifying healthy life choices. She will be learning minor household repair, cleaning protocol for oven and refrigerator, and continuing to practice consistent routine housekeeping of her room. She had maintained her knowledge base and was gaining knowledge with support in the categories as above. Louise's challenges seemed to be due more to consistent performance deficits than knowledge deficits.

Exit Interview and Review of Goals

At the exit interview, Louise's progress in the program appeared to be influenced by her poor working memory, which required repetitive review of the life skill curriculum including specific tasks in all categories. Louise's mentor and coach determined she would benefit from developing an anger management plan should she become angry with a co-worker, her employer, or customers.

Louise's goals were much the same as her initial interview; however, she added she wanted to live independently and would need to obtain a job in addition to her photography work. She did not have any suggestions or changes to the life skill curriculum and the CBI. She is anxious for everything "to be back to normal" once the COVID-19 restrictions are removed. The

CEO of the program stated, “Louise continues to require a lot of direct supervision and supportive care while having the feeling of choice and autonomy.”

Table 6

Summary of Louise’s Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Intermediate	Intermediate	Intermediate
B: Food	Advanced	Advanced	Advanced
C: Hygiene	Advanced	Advanced	Advanced
D: Health	Advanced	Advanced	Advanced
E: Housekeeping	Advanced	Advanced	Advanced
F: Housing	Basic	Intermediate	Intermediate
G: Transportation	Intermediate	Intermediate	Advanced
H: Education	Basic	Basic	Basic
I: Job Seeking	Intermediate	Intermediate	Intermediate
J: Job Maintenance	Intermediate	Intermediate	Advanced
K: Emergency	Intermediate	Intermediate	Intermediate
L: Community	Basic	Intermediate	Intermediate
M: Interpersonal	Intermediate	Intermediate	Intermediate
N: Legal	Basic	Intermediate	Intermediate
O: Family Planning	Basic	Intermediate	Intermediate

Marco***Initial Interview and Goal(s)***

Marco is a 30-year-old man who was admitted in 2012 with the diagnosis of ASD, which he obtained when he was a young child. It was reported when he first arrived at CML he made no eye contact and babbled most of the time. However, at the initial assessment this year, Marco made eye contact and was easily understood when he answered the questions. His mentors also shared that Marco sang to a crowd of people at the last fall festival held on the property, and this was a great personal achievement.

In the initial interview, Marco shared how he had traveled independently to see family in London last year and paid attention to the surroundings in London. He was frustrated his traveling had been curtailed secondary to COVID-19. His favorite thing to do is draw and his favorite subject was science when he was in school. He did graduate high school with a modified diploma. He has attended on-line classes through a local community college. He stated his gift was art, and it was noted by staff that he has excellent long-term recall of event details.

Marco has worked in some of the program's other ventures, although he has been unable to do so this year because of the restrictions secondary to COVID-19. He loves to bake and has made a plan to return to his home in Florida and begin a baking venture. At the interview, Marco stated he was looking into funding and does not understand why he cannot return to Florida to live independently. Marco has a poor perception of the definition of a friend and has been taken advantage of in the past. His goal is to start a baking venture in Florida and look into funding sources.

Life Skills Assessment

Marco's assessment results were as follows:

Category A: Money Management and Consumer Awareness. Marco was assessed at the advanced level. Marco can identify the value of currency and coins; however, he does not have a concept of value. He understands the difference between regular price and sales price and can be frugal, at times. He has the capability of creating a budget; however, it too may be unrealistic if it is something that Marco really wants. He also can create a weekly budget including grocery shopping and will make a menu to purchase his groceries “if I have to.” He will continue to work on the value of items versus the cost.

Category B: Food Management. Marco was at the exceptional level. Marco excelled in food management; he is able to fix breakfast, lunch, and dinner without difficulty. Independently, he uses kitchen tools and appliances safely. He enjoys going to Wal-Mart instead of the local supermarket for his groceries as he has found he gets more food for the same amount of money. He knows how to prepare and eat a balanced diet but stated he does not do this consistently. He enjoys baking and making cookies from his own recipes.

Category C: Personal Appearance. Marco was at the intermediate level. Marco is conscious of his physical appearance and dresses according to the weather. He takes care of his personal hygiene without difficulty. However, when he becomes stressed, he will cut his own hair if it is not kept very short. Marco does his own laundry.

Category D: Health. Marco was at the exceptional level. He understands the importance of not taking someone else’s medication. He does not take medication himself. He articulates the dangers of drugs, alcohol, and tobacco and is passionate about gun safety. He recognizes the symptoms of common health problems such as a cold. He can care for a minor cut or burn and understands how to use and what is included in a first-aid kit. He has regular doctor and dentist visits for health maintenance.

Category E: Housekeeping. Marco was at the advanced level. Marco has the capability to maintain his living space in a reasonably clean manner; however, he often needs encouragement to do so. He tends to hoard magazines, believing they will bring him a great deal of money someday. He can use a plunger to unstop a toilet and is conscientious of water and energy conservation.

Category F: Housing. Marco was at the basic level. Marco will never live independently; he will continue to need structure and support. He does not have a desire to have his own place. Marco has continued to make plans to move back to his home state. This is not an option as he is unable to keep himself safe or keep people from taking advantage of him.

Category G: Transportation. Marco was at the advanced level. Marco is safety conscious when he travels, utilizing his seat belt. He understands different modes of transportation and particularly enjoys flying. He has traveled to cities in the United States and Europe. He does not know how to drive nor has he taken a driver's education course. Marco is uninterested in learning basic car maintenance.

Category H: Educational Planning. Marco was at the intermediate level. Marco has his high school diploma and has attended online classes through a local community college. He has voiced his desire to have his own bakery in Florida but is unrealistic in expecting full funding of his project.

Category I: Job Seeking Skills. Marco was at the intermediate level. Marco has completed standard job application forms, worn appropriate clothing for interviews, and participated in an interview.

Category J: Job Maintenance Skills. Marco was at the intermediate level. He held a job during the summer months at the local putt-putt golf course, but as a result of COVID-19, this

activity did not open for the summer of 2020. He does understand his job responsibilities and reported historically he has been on time to work.

Category K: Emergency and Safety Skills. Marco was at the intermediate level. Marco understands the function of emergency service, police, fire, and ambulance. He understands the purpose of 911 calls. He is cognizant of basic fire safety and the ability to use a fire extinguisher. He is working on understanding the different methods of putting out different kinds of fires.

Category L: Knowledge of Community Resources. Marco was at the advanced level. Marco is very familiar with the area and the amenities that are available. He can use a computer without difficulty although he does not always seek appropriate content.

Category M: Interpersonal Skills. Marco was at the exceptional level. He responds appropriately to introductions and maintains eye contact. He can “sometimes explain feelings appropriately.” He stated he did not know where his personal strengths and weaknesses lie. He understands healthy boundaries, respect, and refrains from physical violence. He understands right and wrong and articulates the relationship between his actions and natural consequences. Marco was unable to articulate stress management skills. His friends have consisted primarily of online contacts; he stated he does not have any friends at CML.

Category N: Legal Issues. Marco was at the exceptional level. Marco articulated the function of an attorney, the legal system, and possible legal penalties for trespassing, shoplifting, and purchasing alcohol for someone under underage. He demonstrates good citizenship and participates in volunteer projects.

Category O: Pregnancy. He did not want to discuss this topic.

After the initial assessment, Marco, his life coach, and his mentor developed goals to include understanding the value of items versus cost. This will help him in developing his

business plan for his cookie business and constructing a feasible budget. He will also be learning about the different methods of putting out different kinds of fires.

3-Month Review

At Marco's 3-month review, Marco remained in the intermediate to exceptional levels of his life skill curriculum in all areas. His life coach stated, "He has been in charge of taking orders for Meals on Wheels." Marco has been part of delivering lunches to essential workers in the area. His ownership and attention to detail with his job for the lunch deliveries indicated his growth in group participation and being a member of the team (related to Categories J and M, job maintenance and interpersonal skills). His primary focus remained on his baking business and working toward more realistic goals associated with his business proposal. He continued to have a strong desire to move back to Florida, but that was not an option for him at the time. His misconception of "my friends on the internet" continued to put him in vulnerable positions. He had developed a platonic relationship with one of the female residents and prior to COVID-19, attended meals, movies, and shopping with her and her family who are very fond of Marco.

6-month Review

At the 6-month review, Marco had reached the advanced to exceptional levels in his life skill curriculum. In Category A (money management) he continued to be unrealistic in the valuation of his cooking business and the expectation for a major funding source to start the endeavor. Even with support from mentors and his Life Coach, Marco had "dug his heels in" and was not looking at other options for his business. It is not uncommon for an adult with ASD to become hyper-focused and unwilling to investigate reasonable options (Brady et al., 2017).

Marco struggled the most with COVID-19. He traveled frequently in 2019 and was not able to travel the same in 2020. He did get caught with a missing computer which was unlike

him and may be in part due to his travel restrictions and misplaced anger. Understanding the true value of “things” continues to be one of his greatest challenges. He refused to participate in neurofeedback because he does not like the electrodes on his scalp.

Exit Interview and Review of Goal(s)

At his exit interview, Marco continued to work on understanding the true value of items; his life skill curriculum will transition to focusing on application of the skills he has learned. He continued to want funding for his baking venture, did not want to move into independent living, and would like to be “re-educated and go to college.” He suggested clients have a computer or more time at the TEC center. He did not have any questions. Marco will not be able to live totally independent and maintain his safety; he will always require assisted living to be safe and not be taken advantage of by “friends.”

Table 7

Summary of Marco’s Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Advanced	Advanced	Advanced
B: Food	Exceptional	Exceptional	Exceptional
C: Hygiene	Intermediate	Intermediate	Advanced
D: Health	Exceptional	Exceptional	Exceptional
E: Housekeeping	Advanced	Advanced	Advanced
F: Housing	Basic	Intermediate	Advanced
G: Transportation	Intermediate	Intermediate	Advanced
H: Education	Intermediate	Intermediate	Advanced
I: Job Seeking	Intermediate	Intermediate	Advanced
J: Job Maintenance	Intermediate	Intermediate	Advanced

K: Emergency	Intermediate	Intermediate	Advanced
L: Community	Advanced	Advanced	Advanced
M: Interpersonal	Exceptional	Exceptional	Exceptional
N: Legal	Exceptional	Exceptional	Exceptional
O: Family Planning	Basic	Basic	Basic

Sabrina

Initial Interview and Goal(s)

Sabrina is a 28-year-old female admitted in 2018 with ASD, anger issues, and low IQ. She is at Cabin Mountain long term. She has a history of tantrums, entitlement, and is known to be an attention seeker, enjoys creating excitement in her life, gaining attention, exaggerating and overreacting.

During the initial interview she was pleasant, polite, and forthcoming in her conversation. She was aware of her challenges and addressing her learning differences, ASD, obsessive-compulsive disorder (OCD), and anger outbursts were included in her goals. Sabrina acts out when she is angry by slamming doors, throwing objects, shouting, and name-calling. She does not care to work with animals except for dolphins. She also stated she does not like to work. Sabrina is participating in neurofeedback; she stated it is calming and relaxing for her. Her main goal is to become independent and her parents support this goal.

Life Skill Assessment

Her life skills assessment results were as follows:

Category A: Money Management and Consumer Awareness. Sabrina was assessed to be at the basic level. Sabrina has historically struggled with money management. She struggles with identifying the value of currency and coins. She stated she understood the difference

between wants and needs, although it is not evident in much of her behavior. She “kind of” understands her grocery budget and works to stay within that budget. She reported she has never had a job but has volunteered in the past. She continues to work on money management including currency and coin identification, value, and budgeting.

Category B: Food Management. Sabrina was at the advanced level. Sabrina understands the importance of cleanliness in the kitchen. She reported being able to fix all her meals; however, she does not enjoy cooking or baking and prefers to go out for meals. COVID-19 has dampened the hopes of eating any meal outside of the home for the time being. She is able to create a meal plan and associated grocery list. She was cognizant of food spoilage and expiration dates.

Category C: Personal Appearance and Hygiene. Sabrina was at the advanced level. She demonstrated the ability to dress appropriately for the day and the weather. She bathes herself regularly. She does her own laundry and dresses in clean clothes daily.

Category D: Health. Sabrina was at the intermediate level. She understood the importance of not taking another person’s medications. She articulated clearly the harmful effects of substance abuse, alcohol, and tobacco. She understands her body and is currently taking the birth control pill. She is able to care for herself with minor burns, cuts, and common illnesses. She was able to explain what medication she was taking and the reason for specific drugs. She will continue to build her skills by knowing what and why specific items are in a first aid kit. She will also maintain her regular doctor, dentist, and psychiatrists visits.

Category E: Housekeeping. She was at the intermediate level. Sabrina makes her bed every day, cleans her bedroom, bathes, and completes assigned tasks in the common area. She

reported she does not know how to change a light bulb. She will need to work on basic home repairs and maintenance prior to pursuing independent living.

Category F: Housing. Sabrina was at the basic level. She has always lived at home or in supervised living programs. She has no reportable knowledge of housing costs, budgeting, renting, landlords, or the pros and cons of roommates.

Category G: Transportation. Sabrina was at the basic level. She uses her seatbelt whenever she travels. She understands the different modes of transportation. She participated in driver's education in high school and stated she had obtained her driver's license. She has no knowledge of vehicle maintenance or the cost of owning or operating a vehicle.

Category H: Educational Planning. Sabrina was at the basic level. She graduated from high school. She did not articulate any vocational or educational plans.

Category I: Job Seeking Skills. Sabrina was at the intermediate level. She does not know what she wants to do regarding obtaining employment; she actually would rather not work. She has completed a standard job application, participated in a mock interview, and chosen appropriate clothing to wear to the interview. She stated she is working on her resume.

Category J: Job Maintenance Skills. Sabrina was at the basic level. She articulated the importance of dressing appropriately for work and reporting to work on time. She does not understand pay stubs, employment forms, or what to do if she needed help with a problem on the job.

Category K: Emergency and Safety Skills. Sabrina was at the basic level. She understands the functions of emergency service departments to include police, fire department and ambulance. She does not understand basic fire prevention or the use of a fire extinguisher.

Category L: Knowledge of Community Resources. Sabrina was at the basic level. She has her voter registration and library card. She stated she did not know what community resources were available or how to access emergency services by phone.

Category M: Interpersonal Skills. Sabrina was at the basic level; she responded appropriately to instructions and answered simple questions while maintaining eye contact. She was unable to articulate healthy boundaries or explain her feelings appropriately. She was unable to identify her strengths and weaknesses or resolve conflict with others. She struggles with acting out when she is angry and neurofeedback is helping with her ability to manage stress. She revealed excellent manners, pleasant and engaging conversation, and demonstrated care and compassion. Critical thinking skills are an area of weakness for her.

Category N: Legal Issue. Sabrina was at the basic level as she did not have any knowledge of legal issues.

Category O: Pregnancy. Sabrina is at the intermediate level. She understood about pregnancy and was on the birth control pill.

Following the initial assessment, Sabrina, her life coach, and mentor developed goals for Category B (food management), specifically to learn to portion control her meals and increase her outdoor physical activity. She will work on increasing her knowledge and understanding of currency and coin identification, value, and budgeting. She will be evaluated for her career interests (Categories H and I). She will continue to work on her critical thinking skills.

3-Month Review

Her 3-month review was completed by her life coach and staff. Sabrina functioned at the intermediate level in Categories B, C, D, E (food management, personal hygiene, health, housekeeping). She was at the basic level in the remaining categories. Staff acknowledged her

effort to begin portion control meals and to participate in physical activity; however, she continued to require prompting. She continued to struggle with conflict management skills, especially with other girls in the house.

A career assessment was completed by her Life Coach, indicating her strengths are working with animals or being a caretaker. She has a better understanding of job skills but is not able to work a “regular job at this time.”

Sabrina, her life coach, and mentor focused on developing goals in interpersonal skills and conflict management skills (Category M). She will continue working on critical thinking skills to support her in managing conflict.

6-Month Review

Sabrina’s 6-month review from her life coach indicated that there had been little change in the categories overall. Noted were the following specifics related to a category. In Category B (food management), Sabrina was struggling with measuring liquids and solids; she struggled overall with any form of math-related tasks. She was now on a meal plan secondary to her over-eating unhealthy foods. She was working in the advanced section of Category B. In Category C (personal hygiene), she was managing her self-care without difficulty; she was working on completing the intermediate tasks and had concurrently started on the advanced tasks. In Category D (health), Sabrina was engaging in physical activity with prompting and working at the advanced level. In Category M (interpersonal skills) she continued to struggle with not getting “her way” and continued to need support with her conflict management skills. Sabrina was still working through the basic level.

Sabrina’s life coach reiterated that she was “not able to manage her own money, unable to make change, and unable to work as she is barely able to count.” She was following her daily

schedule of activities and participated in the morning meetings providing information on the day's activities. She was also engaging in organization skills. She was on a meal plan because "she started to overeat unhealthy foods and is not engaging in physical activity without prompting." Sabrina was doing well with her daily hygiene practices. When attempting to make something in the kitchen, she was struggling with the ability to measure liquids and solids. Support continued to be required as she struggles with not getting her way. She planned to take the Myers Briggs assessment in life skills to continue researching career fields that might interest her. Sabrina was unable to work in the community; however, once the greenhouse is completed at CML, it is hoped a job will be created for her so she will gain successes to replace her feelings of inadequacy.

Exit Interview and Review of Goals

Sabrina's life skills remained consistent with the 6-month review; however, there was a noted gap between Sabrina's knowledge and performance of skills, including consistency. In reviewing her goals at the exit interview, Sabrina added to her old goals to obtain employment and maintain the position. When asked if there were any suggestions to how she was progressing related to the life skill curriculum and CBI, she responded that she "would like to know how much she has progressed." She did not have any other questions.

Table 8

Summary of Sabrina's Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Basic	Basic	Basic
B: Food	Advanced	Advanced	Advanced
C: Hygiene	Advanced	Advanced	Advanced

D: Health	Intermediate	Intermediate	Advanced
E: Housekeeping	Intermediate	Intermediate	Intermediate
F: Housing	Basic	Basic	Basic
G: Transportation	Basic	Basic	Basic
H: Education	Basic	Basic	Basic
I: Job Seeking	Basic	Basic	Basic
J: Job Maintenance	Basic	Basic	Basic
K: Emergency	Basic	Basic	Basic
L: Community	Basic	Basic	Basic
M: Interpersonal	Basic	Basic	Basic
N: Legal	Basic	Basic	Basic
O: Family Planning	Intermediate	Intermediate	Intermediate

Shirley

Initial Interview and Goals

Shirley is a 24-year-old female who was admitted in 2014 with the diagnosis of ASD; she did not recall her exact age of the diagnosis. She was pleasant and cooperative, maintaining eye contact and answering questions with few words during our conversation. Shirley presented as a bright, voracious reader [primarily non-fiction], with a dry sense of humor often not found in clients with ASD. She was not particularly fond of working with any of the animals but has a passion for gardening. She participated in the neurofeedback. Initially she was very conscious of her food intake, eating only healthy organic food. At the onset of COVID-19 restrictions she was unable to shop at the organic food store and began to expand her food choices. She has never lived by herself or had a romantic relationship, nor does she demonstrate any interest in either.

She had a volunteer job at the local florist and gift shop that she enjoyed, and the staff became very fond of her. Her initial goal was to learn to talk with people and obtain a paying job.

Life Skill Assessment

Shirley's Life Skill assessment is as follows:

Category A: Money Management and Consumer Awareness. Shirley was at the exceptional level. Shirley demonstrated proficient skills in identifying the value of coins and currency. She understood the difference between wants and needs and the difference between regular and sale prices. She created a meal plan and grocery list that was initially for the organic food store where she purchased her groceries. She has never had a paying job; however, Shirley demonstrated making a monthly budget for regular expenses with a pre-determined amount of money for the month as practice. Once she obtains a paying job, she will be able to transfer her knowledge into real life figures for her budget.

Category B: Food Management. Shirley was at the exceptional level. Shirley understands the importance of washing her hands before preparing food and eating. She ate only organic foods until the COVID-19 closure of the organic food store. She began foraging the property for organic food. She reported she was mindful of her food budget and stayed within that budget. She understands the various kitchen tools and equipment and uses them safely and effectively. She reported she fixes her own meals; however, the staff reported she continues to need assistance and she is "eating massive amounts of food."

Category C: Personal Appearance and Hygiene. She was at the exceptional level. Shirley dressed appropriately except for the weather, as she does not feel the "cold" requiring staff to remind her to wear a coat. She reported showering on a regular basis with encouragement but does not always dress in clean clothes every day. Although she stated she does her own

laundry without difficulty, staff continues to support her in this process.

Category D: Health. Shirley was at the exceptional level. Shirley does not take any medications. She recognized the symptoms of common health problems and uses a holistic approach for any type of treatment. She stated she is not sexually active and does not use any form of birth control. She demonstrated the ability to exercise, primarily with a purpose, such as scavenging the property for organic food and materials for her dried flower wreaths. She has begun eating large amounts of processed food since she has been unable to go the organic food store.

Category E: Housekeeping. Shirley was at the advanced level. She historically had hoarding tendencies; however, staff reported this has decreased. When asked how often she changed her bed linens, she stated, "Weekly." She is conscious of conservation of water and electricity. She has the capacity to maintain a clean room but always prefers reading over cleaning.

Category F: Housing. She was at the intermediate level. Shirley had no difficulty reading ads for rental vacancies but was unable to articulate the cost associated with different rental vacancies. When asked about the pros and cons of a roommate, she answered the pro is to "help pay rent" and the con of a roommate is that "the person may smell bad."

Category G: Transportation. Shirley was at the intermediate level. She understands the importance of seatbelts and the different modes of transportation. She has no knowledge of vehicle maintenance, repairs, or the associated costs.

Category H: Educational Planning. Shirley was at the advanced level. She completed high school and received her diploma prior to enrollment at CML. She has participated in on-line adult education courses. She has a general idea of educational needs for a desired job and is

aware of the community-based educational resources.

Category I: Job Seeking Skill. She was at the advanced level. Shirley has completed a standard job application form and a mock interview with encouragement. Her answers remained one-word responses 90% of the time. She stated she had completed her resume and participated in a job interview when she volunteered at the local flower shop.

Category J: Job Maintenance Skills. Shirley was at the advanced level. She understood her responsibilities at the floral shop; however, she would walk off to the library for extended periods of time. This was a volunteer job so she did not receive a pay stub. She stated “yes” to the questions of understanding how to speak with an employer and how to ask for help with a problem on the job.

Category K: Emergency Skills. Shirley was at the intermediate level. She understands the function of police, fire, and ambulance services and to dial 911 in an emergency. She has a basic understanding of fire prevention, keeping items away from her heater. She does not know how to extinguish different kinds of fire or the methods to put those fires out.

Category L: Knowledge of Community Resources. Shirley was at the exceptional level. She is capable of using the internet as a resource for information but is more apt to locate a book with the information she might need. She knows the locations of the clinic, laundromat, grocery store, and bank. She enjoys letter writing and addresses the letters correctly with proper placement of a stamp and where the letter is to be mailed. Shirley has a library card and indicated she had a voter registration card.

Category M: Interpersonal Skills. Shirley was at the exceptional level. She answered simple questions with few words. She was respectful during this interview and assessment process. She needs to work on articulating healthy boundaries and explaining her feelings

appropriately; she reads to manage her stress. When asked how she handles problems, she stated she retreats. She is very bright and often uses her dry sense of humor to answer questions.

Category N: Legal Issues. Shirley was at the intermediate level. When asked who she would call if she was arrested she stated, “Bail-bond guy.” She does understand that there are consequences to all actions and understands an attorney’s function.

Category O: Pregnancy. She is at the basic level. Shirley’s response is she is not sexually active.

After the initial assessment, Shirley, her life coach, and her mentor developed goals to include developing a healthy meal plan and following the plan, increasing her independence with fulfilling tasks with minimal assistance, and developing additional skills in Category F (housing).

3-Month Review

Shirley was rated at the advanced and exceptional levels of the life skill curriculum at the 3-month review. She was unable to identify the benefits of saving money. She struggled with following her schedule including not showering and eating in the middle of the night. Since COVID-19, she had started to eat more of everything. She was put on portion control and when this occurred, she started stealing food. She participated in Meals on Wheels by making cards and putting together silverware packs. She had started selling dried flowers and making wreaths for additional income. She had been unable, as with the other clients, to participate in CBI, outside the immediate property, secondary to COVID-19. She engaged more regularly with the community at CML. She was struggling with following a daily schedule and was up at night causing her to want to sleep during the day. She was on a 90-day goal tracker to help her increase her ability to plan and see the results. The biggest change was an increase in being engaged with the CML community. She struggled with answering questions honestly.

After the 3-month review, Shirley, her life coach, and her mentor determined although she had completed the curriculum, she needed to be consistent and present in her daily schedule and planning. She was going to work on answering questions honestly as this was important for all aspects of her life.

6-Month Review

Shirley's life skill functioning remained unchanged. She is bright and completed the curriculum without difficulty. Shirley's skill performance remained inconsistent and presented a constant challenge to her. She continued to struggle showering at appropriate times and needed prompting for routine hygiene habits. She continued to struggle with her wake/sleep patterns. She was also struggling with cooking. Since COVID-19 limited access to organic foods, Shirley developed more openness to eating non-organic foods. She needed support with her laundry as she continued to try to wear dirty clothes, because she likes specific clothes; this need for sameness is not uncommon in adults with ASD (Brady et al., 2017). She has multiple sets of the same clothes to encourage changing daily. Shirley continued to struggle with conflict management; however, she began spending more time with other clients to increase her community participation. Her life coach stated, "We see small shifts in her; more relationships with peers, participating in activities, and eating a variety of foods."

Exit Interview and Review of Goal(s)

Shirley made incremental steps during the study. Her overall level of functioning on the life skill curriculum has remained the same except that her application in Category M (interpersonal skills) has increased. Her communication and increasing her community participation are important achievements for Shirley. She kept her initial goal related to learning how to "talk with people." She added the following to her goals: work towards getting a job,

home organization, cleanliness, and increased memory. She suggested that she spend longer time at the TEC Center and did not have any questions.

Table 9

Summary of Shirley's Independent Living Skills Assessment

Category	Initial Review	3-month Review	6-month Review
A: Money	Exceptional	Exceptional	Exceptional
B: Food	Exceptional	Exceptional	Exceptional
C: Hygiene	Exceptional	Exceptional	Exceptional
D: Health	Exceptional	Exceptional	Exceptional
E: Housekeeping	Advanced	Advanced	Advanced
F: Housing	Intermediate	Advanced	Advanced
G: Transportation	Intermediate	Advanced	Advanced
H: Education	Advanced	Advanced	Advanced
I: Job Seeking	Advanced	Advanced	Advanced
J: Job Maintenance	Advanced	Advanced	Advanced
K: Emergency	Intermediate	Advanced	Advanced
L: Community	Exceptional	Exceptional	Exceptional
M: Interpersonal	Intermediate	Advanced	Advanced
N: Legal	Intermediate	Advanced	Advanced
O: Family Planning	Basic	Basic	Basic

Results

Qualitative Review of the Life Skill Curriculum

The life skill curriculum consisted of 15 categories of skill assessment designed to prepare the young adult or adult with the skills necessary to live independently with support where possible. The researcher conducted the initial interview and skills assessment in March 2020. Secondary to COVID-19 and travel restrictions, the reviews in June 2020 and September 2020 were conducted using a collaborative approach by the Director of CML, the lead coach, and mentor. The final exit interview by this researcher was conducted in early November 2020 while following all COVID-19 protocols.

During the June 2020 review, the staff found a consistent pattern of continued challenges with the clients' abilities to function independently in the areas of money, work, food, conflict management, hygiene, and laundry tasks. In September 2020, there was a noted growth in conflict management and resolution, self-care, food management, housekeeping, and interpersonal skills; however, support remained necessary for most clients. Most clients demonstrated little understanding in family planning and legal skills, requiring an expansion of the life skill curriculum. Due to the COVID-19 restrictions, a modified CBI was created by the staff who developed, on property, a grocery store, bank, library, and a workshop to continue CBI, supporting the clients with their growth and development of skills.

At the exit interview in November 2020, the researcher provided the opportunity for clients to evaluate their goals and make any changes. Clients demonstrated a lack of critical thinking skills and analysis when asked if there were any suggestions for changes to the curriculum; the responses were limited ranging from no change to a request for personal progress. None of the clients raised any questions at the end of the study.

Research Question Responses

Research Question 1

How does the life skill curriculum increase the ability of clients with ASD to gain in autonomy and independence?

The life skill curriculum provided the opportunity for clients to learn and practice areas in life skills that will assist in gaining gradient autonomy in supported independence. As noted in the initial assessment and follow up, all clients made progress in at least two categories. All clients progressed from one level to another in a range from one to six categories, with the average of two categories.

The clients and their subsequent mentors and coaches worked together to create achievable goals and then modified those goals as they progressed through the curriculum. The mentor and coach identified weak areas of functioning and developed plans to teach those skills and provide practice as outlined in the life skill curriculum. The repeated work on each category and continued supervision and support by the staff supported the progress of skills from one level to another and demonstrated growth in the clients. With this growth, the clients are working towards increasing critical thinking skills, experiencing the feeling of choice, gaining autonomy and independence.

The clients at CML will likely never live totally independent, but many of the clients do have the ability to live semi-independently. The organization has planned to build tiny homes on the property and this independent, supported living facility will increase the need for the life skill curriculum to enhance the client's independent living skills.

Research Question 2

What specific ways are the clients able to integrate and demonstrate the learning points from the curriculum in daily life?

The clients are able to integrate and demonstrate the curriculum in daily life through successful application of skills. The successful application of skills was achieved through coaching, teaching, and mentoring while providing opportunities and venues to practice the skills with as much repetition as necessary to meet the challenge successfully. The coaching and mentoring are invaluable to assisting clients to meet their goals and achieve success in continued growth of ADLs.

Research Question 3

How are parents impacted by the curriculum to better understand and support their young adult with ASD through the process of increasing their autonomy and independence?

Parents were invited to attend two Parent Retreats. Each retreat is 2.5 days in length. The Retreats were facilitated by Kim Mlinarik, LPC, and Parent Coach for Q&A Associates along with Angie Shockley, MA, CSP, Founder of Q&A. Parents were guided through a workshop that allowed them to realize that their young adults were moving along on their journey and that they must also change and grow. Lives do not get put on hold for young adults to participate in a program. For parents, this can be a difficult realization. Parents have spent years advocating for their child, who is now an adult. Often, their advocating has turned into rescuing, which has not been helpful or empowering to the young adult.

The life coach and clients had weekly telephone or Zoom calls to update the parents on the activities and plans for the week. This provided the opportunity for the young adult to practice meaningful communication with parents. Practicing appropriate communication and

providing the weekly updates helped to keep the parents connected to their young adult or adult and the activities in which they were participating. Parents also received eight individual sessions with the parent coach once their young adult was enrolled in the program. If they choose, they engaged the parent coach beyond the initial eight sessions, and most of them did extend their time with the coach.

A substantial role in a child's development is the quality of parenting (Collins et al., 2000) and especially with children with ASD (Bader & Barry, 2014). Parents can either rescue or empower their young adults with ASD. When a parent provides autonomy-support, or empowerment, there is the freedom for the young adult to behave on their goals and interest while being authentic (Dieleman et al., 2019; Joussemet et al., 2008). Parents who empower their young adult with ASD promote the development of speech, choice, and the ability to determine their own interests and goals. Controlling or rescuing parenting patterns do the opposite of empowerment and rob their young adult the opportunity to develop and regulate their own behaviors. This type of parenting stunts the growth and development of the young adult reaching any form of autonomy. Manipulative behaviors often are unwittingly an effort to protect their young adult child with ASD from experiencing the everyday experiences of frustrations and consequences from their own actions, increasing the risk of problem behaviors (Barber et al., 2005; Dieleman et al., 2019; Grolnick & Pomerantz, 2009).

The Parent Retreat was to help the parents realize the difference between empowering their adult child and rescuing/enabling parenting styles. The goal was for the young adult to have as much independence as possible instead of them remaining childlike even into adulthood. Parents began to understand they must let go and allow their adult child to experience their life in whatever form it takes. Parents began to understand how important it is to empower their adult

child to be a creator of their life, rather than remaining the child-like victim of their own circumstances. They were encouraged to see their young adults build self-esteem, confidence, and skills. This was beneficial for the whole family as reported by the Parent Retreat facilitator.

Theme Development

Eight clients from CML were interviewed in person by the researcher, and the Life Skill Assessment was completed. Of these clients, 75% were diagnosed with ASD and comorbid diagnoses and their age at diagnosis averaged 5 years old. Two clients (25%) participated in this process with the diagnoses of other cognitive and developmental challenges. It was just as important for the two with cognitive and developmental challenges as the clients with ASD to participate in the study. They all lived on the same campus, participated in activities and outings together, and many of their traits and challenges were not unlike those with the diagnosis of ASD.

Theme 1: The Interviews

The initial interview questions were developed to establish rapport, encourage dialogue, and gain understanding about each client. All clients were cooperative, polite, and maintained eye contact during the interview process. Initially, the clients were asked to explain why they were enrolled at CML. Six of the eight clients reported they were there to learn to live independently, while the other two reported they were there to address negative behaviors. Although the majority understood why they were at CML, a few responses indicated that there was a lack of awareness.

Clients were asked what they do when they became angry. The clients self-reported they lose control (75%) and negative behaviors followed and a small group (25%) responded to their anger by redirecting through outdoor activity and exercise. All eight clients (100%) articulated their ability to maintain safety by keeping their doors and windows locked; not speaking with or

getting into cars with strangers. All the clients were aware of their gifts. The primary gift was art (75%) in some form followed by reading, writing, and “animals” (25%). Five out of eight clients enjoyed meeting new people and three out of eight clients enjoyed working with animals. Half of the clients experienced some form of intimacy in a romantic relationship while the other half had never formed a romantic relationship.

Theme 2: Life Skills and Goals

The life skill curriculum was designed to meet individual client’s needs. Each client worked at their own pace and ability. All of the clients had demonstrated the ability to self-care, which included bathing, toileting, oral care, and wearing clean clothes. Half of the clients continued to require prompting while the other half were independent in self-care. Most clients (75%) struggled with recognizing the value of coins and currency during the initial evaluation; however, this improved with practice as observed in half of the clients who advanced from the intermediate to advanced level while 25% continued to struggle with consistently identifying currency. Food management was a challenge for half of the clients in some form, whether overeating, hoarding, or poor preparation of meals, while the other half improved and progressed to the advanced and exceptional levels of achievement. All clients in the housekeeping and interpersonal skills showed higher levels of understanding than at the initial assessment. The improvement in interpersonal skills appeared to be related to the neurofeedback, as the clients struggling with those skills were found to benefit greatly as demonstrated by a reduction in acting out and being more focused on the tasks they were learning. There was little to no growth in the categories of family planning, legal skills, knowledge of community resources, emergency and safety skills, transportation, and housing.

The goals the clients made during the initial assessment included independence, with five of the eight clients incorporating goals surrounding independence, learning autonomous behaviors, gaining employment, and saving money. The desire to start their own business was the next most articulated goal and this remained important to the clients as they worked to improve their individual, personal trades. Clients also identified improving communication skills; three of the eight clients wanted this to be their primary focus.

The clients continued to refine their products to begin a business. This resulted in clients having the opportunity to sell their wares in a local shop owned by the program and to prepare for upcoming festivals in the area with the hope of the revocation of the COVID-19 restrictions. The review of goals at the exit interviews noted the priority by one client to improve personal hygiene . More important than the specific goals set by the clients was their work toward their future, looking past where they are now. Small successes are celebrated and patience is required as the process is slow and arduous. Providing mentoring and coaching of the skills related to specific goals required the ability to be flexible as the clients expanded their skills to meet the goals. Developing goals built self-confidence, positive achievement, and the flexibility to reassess the goals as necessary.

Theme 3: Parental Support

Parental support was a structural part of the successful growth and continued development of young adults with ASD. Structural support included establishing daily routines, having consistent rules with natural consequences, and providing guidance in the boundaries appropriate for the age of the young adult and the circumstances. Approximately 80% of adult children with ASD lived at home where their parent(s) are the 24/7 caretakers and advocate for their adult child throughout their life (Wong et al., 2020). It is often a difficult transition for

parents to move from caring 24/7 to allowing the young adult to begin to learn and achieve their greatest level of independence. For many parents, caring for their young adult child with ASD is exhausting, depressing, anxiety producing, and, at times, hopeless, as it can overwhelm a marriage including their emotional well-being (Brobst et al., 2009) and added financial concerns (Sharp & Baker, 2007).

Parents either rescue or empower their young adult child. Empowering the young adult provides supportive autonomous freedom to develop their personal goals and interests with authenticity (Dieleman et al., 2019; Joussemet et al., 2008). Controlling or rescuing parenting patterns often unwittingly do just the opposite; they take away the ability and opportunity for the adult child to reach any practice of autonomy and responsibility for their own actions (Barber et al., 2005; Dieleman et al., 2019; Grolnick & Pomerantz, 2009). A successful transition is often based on the parent's perception of the transition process and their goals for the adult child should be taken into consideration, forming a partnership with the program (Wong et al., 2020).

The parent workshops, weekly calls, and visits as permitted by COVID-19 restrictions provided the support for the parents to continue to be involved with their young adult. This allowed parents to reconnect with each other and pursue their goals as individuals, couples, and families.

Summary

The life skill curriculum, coaching, mentoring and repetitive teaching of skills were found to be effective in all of the clients as demonstrated by their ability to complete tasks and advance in the levels assessed. The difference within each client was in the depth of understanding and ability to repeat what had been learned. All of the clients benefitted from a routine consisting of a posted daily schedule beginning with a morning meeting, the use of their

daily calendars with events or assignments, and a reflection time at the end of the day. None of the clients had electronic devices as they were uniformly unable to manage their time independently on the devices without close supervision. The clients learned through role-playing social skills, job interviews, and developing healthy boundaries. The clients learned and practiced social skills in their everyday life.

Character is an important component of this program. Scolding is not beneficial with young adults; however, encouraging the clients to think about how they could do things differently or handle different situations is the focus of the program and designed to support the adult's learning process. Teachable moments are addressed as they occur, both positive and negative. In an interview with Angie Shockley, CEO of CML, she discussed the benefits of neurofeedback; this has empirically been shown to benefit clients by focusing on better regulation and alleviating unwanted symptoms and behaviors through the reduction of emotional network activation. Reducing negative emotional behaviors allows the clients to focus on the life skill curriculum more effectively. Angie Shockley, the CEO of the CML program reported:

Most of our young adults are dealing with high levels of anxiety, so adding neurofeedback to our program services allows them an additional option for calming the central nervous system and retraining the brain, creating the space and capacity to make better decisions—responding with thought, rather than reacting from emotion.

The overarching benefit of this life skill curriculum and adjunctive services is the ease of tailoring the program to individual needs by developing, supporting, and building upon the clients' abilities as they learn and grow.

CHAPTER FIVE: CONCLUSION

Overview

This study of life skill curriculum evaluated the effectiveness of CML, a long-term residential program in West Virginia. The CML is a hybrid, cost-effective residential living for young adults and adults with ASD and other neuro-developmental disorders to achieve the highest level of independence in a safe environment. Although this study had the major challenge of COVID-19 and the restrictions this placed on the program, the staff were able to meet this challenge and create an environment for learning and diversity for each client so as not to lose momentum that had previously been gained and continue growth in the individual's specific growth plan. The life coaching model with mentoring provided opportunities for the adults with ASD to develop new skills and confidence in their quest for gaining independence in a safe environment. Practice, repetition, support, and creativity continue to help clients meet the challenges they face.

Summary of Findings

This study provided answers to the research questions:

Research Question 1

How does the life skill curriculum increase the ability of clients with ASD to gain in autonomy and independence? The curriculum provided the opportunity for each client to learn ADLs through coaching and mentorship and develop their knowledge base to move toward independent living and autonomy. The process is slow for the clients with ASD and neuro-developmental disorders, but through teaching, practice, and repetition small achievements are reached. The individualized and group processes are slow and deliberate to meet the needs of each client based on his or her individual growth plan.

Research Question 2

What specific ways are the clients able to integrate and demonstrate the learning points from the curriculum in daily life? The schedule for the clients was purposely developed for the purpose of maintaining a positive growth model based on the life skill curriculum. Beginning each day with the “morning meeting,” the group reviews each day’s plans and individual goals. The processes throughout the day support the life skill curriculum by demonstrating the learning points and having the client practice those specific points with the guidance and support of the Cabin Mountain staff. It is important for each of the clients to maintain his or her schedule each day in an effort to reduce the stress of not knowing what he or she will be doing during the day. This specifically provides the clients with a sense of control over their everyday life. Each segment of the curriculum and the client are evaluated weekly to determine the progress or deficits found in individual care plans. The curriculum then focuses on the weak areas but also on positive support in the progress of goals met.

Research Question 3

How are parents impacted by the curriculum to better understand and support their young adult with ASD through the process of increasing their autonomy and independence? Through weekly phone calls with the Life Skill Coach, client, and parent(s), the adult child is learning to develop meaningful conversation and review the individual progress. This is supported with parent coaching and two onsite parent workshops each year. As the parent support process moves on, the parents begin to understand how important it is to empower their young adult or adult with ASD to be a creator in his or her life, rather than remaining the child-like victim of their own challenges.

Discussion

Empirical Literature

There continues to be a gap in literature addressing the benefits of teaching a life skill curriculum, coaching and mentoring adults with ASD and other co-morbid diagnoses. Since the beginning of this research, there has been an increase in studies related to “high-functioning” (once referred to as young adults with Asperger’s) young adults with ASD. College transition has been increasingly studied with the benefit of support systems to be put in place providing the young adult with ASD the needed resources to navigate college.

The clients at CML are not classified as “high functioning” and will require more assistance with ADLs. Self-care and care of the individual’s environment continue to be a challenge among this population. However, improvement was noted in those areas without exception. Consistent coaching and mentoring support of the life skill curriculum has, in this researcher’s opinion, increased the quality of life for the clients at CML. Programs for adults with ASD are few and many are not cost effective for families.

Theoretical Literature

In the early to mid 1970s, most children identified as autistic were institutionalized in mental hospitals or other non-specified protective environments. Psychiatric interventions at that time were not considered beneficial and behavior modification became the standard treatment (Lovaas, 1987). Early intervention did not address outcome or prognosis (Fenske et al., 1985).

As found in the literature, the clients with ASD did not vary from the essential features including deficits in understanding social cues, appropriate social interactions, repetitive behaviors, interests, and limiting functional impairments (APA, 2013b). Impairment in social cues with deficits in non-verbal communication and social-emotional reciprocity were found in

all of the clients. Restricted and repetitive patterns of behavior, activities, or interests and excessive adherence to routines were found in most clients. The life skill curriculum addressed social cues, appropriate interactions, behaviors, and expanded the functional impairments.

Clients with ASD, regardless of age, are assessed based on their social communication and restricted or repetitive behaviors. Assessments for ASD determine the severity level of required support, falling on a continuum between Level 1 (requiring support), Level 2 (requiring substantial support), or Level 3 (requiring very substantial support; APA, 2013a). The clients in this study fell on the continuum of Level 1, requiring support, to Level 2, requiring substantial support. The symptoms associated with ASD may vary in severity over time. The severity specifiers address the impairments in intellectual and/or language, with known medical, genetic, or environmental factors associated with the neurodevelopmental, mental, or behavioral disorders (APA, 2013b).

Christian Worldview

The clients come from a varied belief system, and it is apparent the clients take on their families' specific belief systems. Since the young adult with ASD has a concrete view of the world, the concept of God and Jesus dying on the cross for their sins, rising on the third day, is comprehensible for many of the clients. For this researcher, it was implicit understanding of her Christian belief that provided support and understanding of the clients during the study without explicitly discussing the individual belief systems with the client. The clients in this program each had a visible gift God had given them. Developing and supporting those gifts are an important part of the mentoring process with the Cabin Mountain Living clients.

Implications

Teaching, coaching and mentoring the life skill curriculum in this study demonstrated the ability, over time, for young adults and adults with ASD to learn and grow. Building on the individual's strengths provided a positive environment and allowed for learning and refining ADLs. There are areas within the curriculum such as money, the ability to recognize the denominations, understand budgeting, and need versus want that continue to be a challenge for a majority of the clients (80%). The clients have substantially improved with time and scheduling with the use of individual calendars and morning meetings to review the day's agenda. Community Based Instruction strengthened the knowledge of resources available in the community, despite the limitations from the global pandemic, which suggests the program will provide even more opportunities for growth and learning in the future. Learning and understanding how to locate resources in the community, as with any young adult, is an important component to success wherever the client would go.

The growth and retention of learning self-care personally and in their home and work environment continues to be slow and requires a repetitive process. The clients at CML without exception will always require varied levels of supportive living. The addition of tiny homes on the property will be of tremendous benefit in teaching the skills to clients for autonomous living within the confines of the CML supportive environment. The director of the CML reported the addition to the programming is expected to develop this hybrid model and potentially become a prototype for dissemination to other programs for the young adult with ASD to successfully live as independently as possible.

This program has the support of a large resort in the area that is willing to work with the clients to provide opportunities for employment. This partnership has been beneficial for the

clients with ASD who are able to be employed outside the program's businesses. Testing and refining the individual's job skills has been a large part in the successful employment of the clients with the capacity to work outside the program.

Limitations

Limitations include the small population for this study and location in a rural area in the eastern United States. The restrictions of COVID-19 had a substantially negative impact for both client and staff and limited the programmatic evaluation of this study. After the initial interview and assessment, the researcher was unable to do face-to-face interviews and relied on the director of the program to fill-in and provide the face-to-face interviews for the researcher since telephone interviews were not effective in eliciting information from the clients. The exit interview in person proved meaningful closure for the clients and elicited more elaborate information. This study does not allow for the substantiation or authentication of the data collected from clients and staff. Further study would enhance the literature by expanding to different programs and formats in more populated areas.

Recommendations for Further Research

There continues to be a great need for further research with adults with ASD who were diagnosed later in life and also are not functioning independently to better understand how to support their well-being and life satisfaction. Neurofeedback and sensory rooms have been widely researched and have support in their effectiveness for helping individuals with ASD. It is thought that sensory challenges may delay or inhibit growth in areas of maladaptive behaviors and social skills (Pfeiffer et al., 2005). Other studies have indicated an increase in inappropriate behaviors and interactions when there is a resistance to social interactions (Kern et al., 2007). Further quantitative studies are needed for determining the efficacy of neurofeedback for this

population. This study did find qualitative data supporting neurofeedback in minimizing conflict, re-direction, and calming the client while allowing for continued growth in achieving semi-independent living skills.

Summary

The study originally included 11 clients; however, due to the global pandemic, three clients returned home and did not begin or complete the study. The eight remaining clients who did complete the study experienced a slightly different, more limited study. The primary impact of the program included the modification of the CBI where clients are able to practice skills in the community and visitation from/to their respective families as the clients were quarantined to the campus only.

The clients reported having difficulty being on the campus 24/7; however, the program director and staff redeveloped CBI and other activities. A grocery store, bank, library, and general merchandise store were set up on the campus property. This provided the clients with experience and practice, strengthening their ability to continue to manage money, budget, purchase healthy food choices and purchase personal necessities, and go to the “library” which was a favorite, especially among the female population. There is a woodworking shop on site and the clients continued woodworking classes to make items to sell at festivals once the mandatory stay-at-home order was lifted. The clients adjusted to their new normal and all adapted remarkably well considering the significant change in programming.

In an effort to continue their community service, the clients began a “meals on wheels,” in which each week meals were delivered to essential workers fighting the pandemic. Each client had their own assignment to include menu planning, budget, and a grocery list for the staff of

CML to purchase groceries for that meal. The clients were responsible for preparation and delivery of meals under the COVID-19 regulations.

Employment was not continued outside of the program; nonetheless, the clients made various items to be sold in the “pop up market” on the outer boundaries of the property. The clients took turns operating the market, participating in marketing and sales, and promoting community acceptance and awareness.

COVID-19 has had a substantial impact on the program and has been more difficult for one of the clients to be able to attend church on Sunday. Overall, both staff and clients have adjusted to wearing masks, social distancing, and handwashing. They have continued their life skill curriculum, and the program is working on expanding the amenities to include independent living on the property with the tiny homes. This will provide the opportunity for each client who meets their goals an opportunity to live semi-independently in a safe environment.

All clients demonstrated growth related to their life skill curriculum, coaching, and mentoring support provided at CML. There has been significant improvement with the use of neurofeedback for the clients who have chosen to participate. This program component has resulted in considerable changes reported by mentors and teachers in clients’ impulsivity and negative behaviors. The clients participate in the sensory room as they wish and this has provided the opportunity for them to self-soothe and calm themselves as needed.

There are significant studies that need to continue for adults with ASD and other neurotypical deficits. Programs such as CML are not plentiful but are beneficial in aiding the individual with ASD and those with other deficits to gain knowledge, awareness, and increase their level of independence. There has been substantial growth in early detection, intervention, and adaptation that has not been experienced by older adults with ASD. However, there is a

population of young and older adults with ASD who have not been studied and few programs developed to support the individual's ability to learn and grow in a positive environment. There is not one program or method that is effective with all clients with ASD, but with further study, programs for the community with ASD and other adults with neurotypical deficits can use the tools available to promote their ability to reach their highest level of autonomous living.

The Life Skill Curriculum model with the adjunct supports and opportunities was found to be effective in assisting all clients in the quest for independence at some level. One of the main benefits is that this model is individualized, fluid, and can easily be adjusted for the client's intellectual ability as they learn and grow. Time of enrollment must also be taken into consideration as the older clients have progressed much further than the newer clients.

The program evaluation demonstrated patterns in specific areas of the Life Skill Curriculum. There was minimal, if any, growth in the following areas: housing, transportation, educational planning, job seeking, emergency and safety, legal skills, and family planning. Although all skills are important to the development, growth, and independence that the clients are working toward, it is recommended these areas be reevaluated as to content and be redesigned or the curriculum expanded to meet the clients' understanding and ability to process and apply those areas to real life.

Identification of denominations of money continues to be a challenge; it may be reenforced if the "token economy" were changed to replicate denominations only for use at the program's store. Educational planning is a challenge for many of the clients. The implementation and support of the woodworking shop, crafts, gardening and the ability to put items in the program's local store should be added as part of the educational process such as learning a trade. This would then demonstrate growth as the clients progressed in their abilities to further

education and the ability to help support sustainability when they are living in more independent housing. Expanding critical thinking skills curriculum while focusing on discernment, decision-making, and safety will help the clients to be able to address situations and events with a clearer picture, understanding the risks and benefits of each. It is also important for staff to allow the clients to do their tasks instead of doing the tasks for them. Although this takes patience and time, it is important for their individual abilities to achieve their ADL's independently.

Following a recent conversation with the CEO of CML, the training program for employees has been standardized and available through an online platform that records the individual staff's knowledge and progress. Areas of weakness are then addressed and retaught in an effort to increase knowledge and continuity of care. The use of the goals and care plan has become easily available to all staff. This reinforces and provides guidance when working with the individual clients in meeting their goals. A second certified Life Coach is being considered for CML to work with the primary Life Coach in an effort to have a flow and consistency to the curriculum and actual demonstrated skills of each client on campus.

Housing will be more effectively taught when clients are getting ready to move into the tiny houses. Transportation is limited in the community of CML. Because of COVID-19, program changes were implemented on campus to continue the curriculum during this restricted time.

Transportation was one of the categories with the least growth. Requesting transportation, what transportation entails, and scheduling transportation will continue to support the client's efforts for growth in this area. Job seeking skills, emergency and safety skills, and legal skills were also found to have minimal growth. Job seeking skills practiced by searching the employment advertisements, learning appropriate dress for interviews, and participating in mock

interviews would be beneficial for the clients to grow in this area. Emergency and safety skills could easily incorporate fire prevention, an escape plan in the event of a fire, and participation in a basic first aid class when one becomes available. Legal skills are necessary for the clients to understand legal and illegal activities and the consequences associated with those activities. Family planning and intimate relationships could be expanded by practicing skills of appropriate behaviors in a relationship and learning the various methods available for family planning. The continued curriculum of communication, problem solving, healthy boundaries, and time management will reinforce the areas of growth and provide examples of success as each client moves through their individual curriculums.

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APPENDICES

Appendix A: Life Skill Inventory

Client Number:

Name of person assessing & date of assessment

1.

2.

3.

4.

Please list highest level achieved at three and six months

A. Money management/Consumer Awareness
B. Food Management
C. Personal Appearance/Hygiene
D. Health
E. Housekeeping
F. Housing
G. Transportation
H. Educational Planning
I. Job Seeking Skills
J. Job Maintenance Skills
K. Emergency & Safety Skills
L. Knowledge of Community Resources
M. Interpersonal Skills
N. Legal Skills
O. Family Planning

CATEGORY A: Money Management and Consumer Awareness

Basic

- Identifies the value of coins and currency
- Demonstrates the ability to make a purchase at the store and count change
- Understands the difference between wants and needs
- Understands the difference between regular and sale prices
- Identifies one way to save money on purchases

Intermediate

- Has opened a local savings account
- Demonstrates approved withdrawals and deposits
- Demonstrates recording bank transactions
- Prepares a budget and maintains budget for one week
- Understands the difference of gross and net pay
- Demonstrates the ability to use a calculator to add, subtract, multiply and divide

Advanced

- With assistance makes a monthly budget covering regular expenses for independent living
- Demonstrates the ability to read, understand, and interpret monthly bank statements, adjusting for the differences in balance (i.e., service charges, etc.)
- Comparison shops using unit pricing information to determine the best value
- Understands the responsibility of filing tax forms. Knows the information to file, where to go for assistance, or if the tax information is sent to the guardian
- Knows how to clip and use coupons

Exceptional

- Budgets for and creates an emergency fund for unanticipated emergencies, seasonal bills, etc.
- Understands buying on credit, loans, interest, and late payment penalties
- Understands payroll deductions: taxes, FICA, insurance
- Demonstrates completion of short tax form on paper or online (if applicable)
- Opens checking account and understands the importance and how to balance checkbook
- Develops regular savings program in addition to the emergency fund

CATEGORY B: Food Management

Basic

- Washes hands before preparing food and eating
- Demonstrates ability to order more healthy meals from a menu in a restaurant
- Demonstrates some knowledge of the food pyramid, the Mediterranean diet, and foods that contribute to a healthy lifestyle
- Knows the names and use of cooking utensils

Intermediate

- Demonstrates fixing breakfast for self
- Demonstrates fixing lunch for self

- Demonstrates fixing dinner for self
- Demonstrates ability to make out a grocery shopping list
- Demonstrates use of cooking utensils safely and effectively: knives, opener, grater, etc.
- Demonstrates use of all kitchen appliances safely and effectively
- Demonstrates acceptable table manners

Advanced

- Stores perishable items correctly in refrigerator
- Recognizes signs of food spoilage
- Demonstrates the ability to follow instructions for preparing canned, frozen, and fresh foods
- Demonstrates a plan for weekly menu of nutritious meals
- Demonstrates ability to shop for the week's menu and stay within a food budget
- Sets the table appropriately
- Demonstrates ability to carry out a grocery-shopping trip (selecting items on the list, comparison shopping, substituting if necessary, and paying the cashier)

Exceptional

- Prepares recipes from a cookbook
- Demonstrates how to adjust recipes to feed more or less people than called for in the recipes
- Understands how to read dates on food packages and when to be used to prevent spoilage
- Prepares and eats a balanced diet

CATEGORY C: Personal Appearance and Hygiene

Basic

- Demonstrates ability to dress self appropriately for the day
- Bathes self
- Knows how to use personal hygiene products appropriately
- Brushes teeth after meals and at bedtime

Intermediate

- Showers or bathes regularly
- Keeps hair clean and neat without a beanie or ball cap
- Dresses in clean clothes every day

Advanced

- Reads clothing labels and determines which clothes are hand washed, dry cleaned or machine-washed
- Demonstrates sorting and washing clothes using appropriate temperatures, amounts of soap, bleach, etc.
- Demonstrates drying clothes in dryer using appropriate settings (and to reduce wrinkles)
- Knows the cost of and budgets monthly for special hair and nail care (i.e., manicures, hair coloring, etc.)
- Demonstrates ability to sew on buttons and make minor clothing repairs

Exceptional

- Demonstrates hand wash items following the instructions on the label

- Demonstrates appropriate clothing to wear for weather
- Demonstrates appropriate clothing to wear for activities, events (i.e., interview, dinner, work, etc.)

CATEGORY D: Health

Basic

- Understands the importance of not taking someone else's medication
- Understands and articulates that drugs, alcohol, and tobacco are harmful to your health
- Knows the parts of the body and sexual functioning
- Understands how pregnancy occurs
- Knows how and where to get emergency health care

Intermediate

- Recognizes and describes symptoms of colds, flu, and other common health problems
- Knows what to do for a minor cut, burn or splinter
- Understands the risks of pregnancy and sexually transmitted diseases
- Understands the risks and effects of drug and alcohol abuse
- Identifies medication prescribed, the why, and potential adverse reactions

Advanced

- Demonstrates taking care of self with cold, minor illness, or minor injury (i.e., scrape)
- Recognizes/makes correct use of "over the counter" drugs for pain, stomach upset, diarrhea, fever, cold/allergy
- Demonstrates scheduling dental and/or doctor appointments as needed
- Demonstrates ability to read a prescription label correctly and follow the instructions
- Has the ability to take medication without supervision
- Knows how to dispose of drugs in a safe manner
- Knows how to use what is included in a first aid kit
- Knows how to obtain a copy of personal immunization records and medical history
- Knows methods of birth control and how to obtain birth control devices
- Knows how to prevent sexually transmitted diseases
- Has selected a regular doctor, dentist, clinic for health care and maintenance
- Understands the importance of medical insurance under parent's policy, Medicare, and/or Medicaid

Exceptional

- Demonstrates the ability to exercise, maintain good eating habits, and other preventative health measures
- Determines when to go to the emergency room and when to make an appointment with doctor or at clinic
- Has obtained medical insurance or medical card

CATEGORY E: Housekeeping

Basic

- Demonstrates washing dishes adequately using soap and hot water

- Demonstrates changing a light bulb
- Demonstrates making a bed
- Knows how to dispose of rubbish

Intermediate

- Demonstrates use of vacuum cleaner properly; can empty canister or change bags
- Demonstrates changing bed linens
- Knows how to prevent sinks and toilets from clogging
- Knows how to sweep floor and stairs, wash wood, laminate, tile, and linoleum floors
- Knows how to wash windows, dust, clean bathroom: toilet, tub, sink
- Knows appropriate cleaning products to use for different cleaning jobs

Advanced

- Knows how to stop a toilet from running
- Knows how to use a plunger to unstop a toilet or sink (not the same plunger)
- Demonstrates proper cleaning of stove/oven per appliance directions
- Knows how to conserve water and energy
- Performs routine house-cleaning to maintain home in reasonably clean state
- Uses drawers and closets appropriately for storage

Exceptional

- Knows what repairs a landlord should perform
- Demonstrates how to do minor household repairs
- Has ability to contact landlord and request repairs
- Knows how to reset circuit breaker
- Demonstrates how to measure for blinds or curtains or both
- Knows how to get rid of and avoid roaches, ants, mice, etc.

CATEGORY F: Housing

Basic

- Understands the concept of renting
- Knows how to access emergency shelter

Intermediate

- Demonstrates ability to read want ads for vacancies
- Understands basic terms (lease, sub-let, utilities, studio, efficiency, security deposit, pet deposit, references, etc.)
- Demonstrates the ability to calculate the costs associated with different types of housing
- Describes the pros and cons of choosing a roommate

Advanced

- Identifies the type of housing that is within budget and meets current housing needs
- Calculates “start-up” costs (utility deposits, connection fees, security deposit, first month’s rent, purchase of furniture and all other household items)
- Completes a rental application
- Asks landlord about available apartments to determine if it meets his or her needs

- Inspects the apartment to make sure appliances are in working order, and for any damages found prior to moving in (TAKE PICTURES)
- Understands the role of the landlord
- Understands the implication related to the security deposit being returned at the end of the lease
- Understands the rights as a tenant and those of the other tenants regarding property, noise, etc., and consequences associated if rights are not respected

Exceptional

- Determines if the landlord has supplied accurate information about the apartment and the neighborhood by researching and resourcing
- Demonstrates the ability to get along with others including other residents and landlord
- Understands how to get help if there is a conflict with the landlord
- Can access emergency assistance for all utilities

CATEGORY E: Transportation

Basic

- Understands and uses seat belts
- Understands different modes of transportation: Uber, Taxi, Metro, Airport and Train
- Understands the importance of scheduling trips when utilizing staff for transportation and whom to contact prior to finalizing arrangements

Intermediate

- Understands the consequences of driving with a license and/or insurance
- Has participated and successfully completed a driver's ed class
- Demonstrates the ability to give accurate directions
- Demonstrates the ability to use various modes of transportation

Advanced

- Arranges routine transportation to work or in life skills class
- Demonstrates what is required to obtain a driver's license in WV
- Demonstrates ability to read a map

Exceptional

- Demonstrates how to do basic car maintenance
- Demonstrates ability to change a tire
- Estimates cost of owning and operating a vehicle for a month/year including maintenance, insurance
- Obtains driver's license

CATEGORY H: Educational Planning

Basic

- Has high school diploma
- If high school diploma is not realistic, understands the TASC exam, how to study, and pass

Intermediate

- Articulates a general idea of what education is needed for the desired job

- Discusses educational/vocational plans with coaches/mentors
- Demonstrates knowledge of educational resources available in the community

Advanced

- Demonstrates ability to obtain school transcripts
- Understands current educational credits and standing
- Has developed an appropriate educational plan for selected job
- Understands educational/skill requirements for selected job
- Demonstrates awareness of the cost of higher education/vocational training
- Understands the difference between a loan, grant, and scholarship
- Demonstrates ability to complete forms to enroll in an educational program

Exceptional

- Researches to find the best educational resources
- Demonstrates understanding of where to find and how to access adult education/vocational training in the community
- Demonstrates knowledge of how to obtain financial aid/scholarships/grants for continuing education
- Understands prospects and living standards relative to levels of education and specialized skills
- Identifies the connection between course work and vocational goals

CATEGORY I: Job Seeking Skills

Basic

- Has reasonable idea of the types of jobs available
- Knows what the minimum wage is for WV

Intermediate

- Completes standard job application form
- Researches employment opportunities and obtains appropriate leads
- Completes a mock interview giving appropriate answers to potential questions
- Makes an appointment for a job interview
- Chooses appropriate clothing to wear to an interview

Advanced

- Develops resume
- Completes job interview
- Understands I-9 forms and documents necessary if employed
- Demonstrates ability to complete withholding form correctly
- Demonstrates ability to complete forms for direct deposit

Exceptional

- Follows up interview with a letter
- Maintains follow up schedule for applications and interviews
- Understands discrimination, sexual harassment, and consequences of violations

*CATEGORY J: Job Maintenance Skills***Basic**

- Dresses appropriately for work
- Reports to work on time
- Understands job responsibilities and how to complete tasks
- Knows to contact employer when not able to go to work as required by position
-

Intermediate

- Demonstrates ability to read a pay stub
- Understands the appropriate way to speak with a supervisor
- Knows how to ask for help with a problem on the job and with whom to speak
-

Advanced

- Knows if and when eligibility for sick time, vacation or personal time begins to accrue
- Articulates what a grievance procedure is
- Understands what needs to be done to get a raise
- Knows when and where not to speak with co-workers
- Writes a plan for handling anger when angry at supervisor, co-workers, or customers
-

Exceptional

- Implements anger management plan when necessary
- Understands how to use the company grievance procedure to resolve disagreements
- Articulates how to ask for a raise
- Understands what is necessary to be eligible for a promotion
- Understands legal rights as an employee

*CATEGORY K: Emergency and Safety Skills***Basic**

- Knows functions of police, ambulance, and fire department. Understands 911 calls,
- Trained to evacuate residence in case of fire
- Demonstrates proper way of disposing of smoking materials if applicable
- Demonstrates how to lock and unlock doors and windows
- Demonstrates how to check smoke alarm and how to replace battery

Intermediate

- Understands basic fire prevention (no excessive use of extension cords, keep items away from heat sources, monitor of frayed wires, etc.)
- Knows how to use a fire extinguisher
- Understands that improperly used appliances can cause fires
- Recognizes the smell of gas and knows whom to call if gas leak is suspected

Advanced

- Knows different methods for putting out different kinds of fires

- Demonstrates proper storage of cleaning products and materials
- Articulates what determines when professional medical help is needed

Exceptional

- Has completed CPR Training
- Has completed basic first aid training

CATEGORY L: Knowledge of Community Resources

Basic

- Knows how to get emergency information by telephone
- Knows whom to contact if injured or ill
- Knows how to access emergency food and shelter
- Knows how to access crisis line

Intermediate

- Knows where the local grocery store, laundromat, and bank are located
- Demonstrates the ability to use the internet as a resource to obtain information
- Knows how to use post office for mailing and stamps

Advanced

- Articulates whom to contact if utilities and or heat goes out
- Knows when, where and how to register for selective service if applicable
- Identifies where the nearest state employment office is
- Understands how to obtain a copy of birth certificate and duplicate social security card
- Has awareness of specialty resources such as: family planning clinic, animal control, public recreation sites, etc.

Exceptional

- Knows who the elected representatives are and how to contact them
- Has obtained a voter's registration card
- Has obtained a library card

CATEGORY M: Interpersonal Skills

Basic

- Can respond appropriately to introductions and answer simple questions
- Identifies one friend
- Looks someone in the eye when speaking to them
- Shakes hands if another person offers

Intermediate

- Can make introductions including approaching others to introduce self
- Can articulate healthy boundaries
- Asks for assistance when needed
- Explains feelings appropriately
- Identifies healthy relationships and unhealthy relationships

Advanced

- Identifies personal strengths and weaknesses
- Respectful to self and others
- Makes plans for social activities with peers
- Understands when and where to get help to resolve interpersonal conflicts
- Has ability to resolve some conflicts with others
- Refrains from violence
- Understands no means no and practices how to say no to a peer who is attempting to persuade client to do something wrong
- Demonstrates the ability to develop realistic plans with appropriate steps to achieve goal (including the budget)
- Articulates the relationship between actions and natural consequences
- Has appropriate table manners
- Demonstrates stress management skills

Exceptional

- Labels and expresses anger appropriately, talks out problems instead of reacting
- Knows when and how to send written thank you notes
- Has the ability to close a relationship or say good bye in a healthy and mature manner
- Demonstrates empathy skills
- Demonstrates critical thinking skills
- Is impeccable with his/her word, does not take things personally, doesn't make assumptions, always does his/her best
- Treat others as they would like to be treated
- Ability to recall: You cannot control what others say or do ONLY how you respond

*CATEGORY N: Legal Issues***Basic**

- Has number of someone to call if arrested or victimized
- Understands generally what actions are against the law and associated consequences

Intermediate

- Has understanding of rights if arrested
- Understands the function of an attorney
- Articulates legal age for alcohol and tobacco products

Advanced

- Aware of availability of free legal services
- Understands the consequences of signing a lease
- Knows the legal penalty for the following:
 - Buying, possession, selling, smoking marijuana and other drugs
 - Buying and drinking beer and alcohol underage
 - Trespassing
 - Shoplifting
 - Burglary

- Possession of stolen property
- Traffic violations

Exceptional

- Demonstrates good citizenship independently
- Understands the difference between felony, misdemeanor, or violation
- Demonstrates ability to read and articulate contents in a contract

CATEGORY O: Pregnancy

- Knows resources for birth control
- Knows location of family planning office
- Knows available birth control options

COMMENTS

Appendix B: Independent Living Skills Assessment

Client Number	Objective: to monitor daily achievements (please note date).
Reading, Writing, and Communicating for Leisure Information	Checks, receives, and sends an e-mail
	Uses appropriate telephone skills
	Reads/observes local current events
Money Management in Everyday Life and Personal Finance	Identifies various US monies
	Adds/subtracts like and unlike coins and bills
	Identifies equivalent monies
	Pays a cashier and waits to take change from a cashier
	Uses various forms of payment (checks, credit cards, etc.)
	Uses a wallet or purse to organize money
	Maintains a checking account
	Estimates the cost of items
	Uses a coupon
	Calculates a sale price
	Calculates tax, tip and total
	Designs a budget and stay within it
	Compares the cost of items in different stores
	Identifies the benefits of saving money
Time Management in Everyday Life	Tells time
	Identifies times that are earlier or later
	Develops a daily, weekly, and monthly schedule
	Follows a daily schedule
	Engages in organizational Skills
Making Healthy Life Choices	Identifies healthy meals
	Engages in physical activity
	Identifies how to make healthy life choices (drugs, sexual

	education, well checks, dentist visits, healthy routines, medication management)
Assisted Daily Living Skills-Self Care	Engages in routine habits associated with hygiene
	Toilets independently
	Engages in behavior and routines associated with self-awareness
Assisted Living Skills-Dressing Skills	Take clothes on and off
	Puts accessories on and off
	Manipulates clothing (buttons, snaps and zippers)

Assisted Daily Living Skills - Kitchen Skills	Table Skills
	Sanitary Practices in the Kitchen
	Measuring liquids and solids
	Meal Preparation
	How to use a variety of kitchen tools
	Uses stove and microwave
	Washes dishes
	Food Storage
Assisted Daily Living Skills - Domestic Skills	Laundry
	Household Cleaning & Tasks
Assisted Daily Living Skills - Safety Skills	Basic safety skills
	Basic first aid
	Safety in community
	Crisis Situations
Introduction to community	Transportation
	Community participation

	Navigating community environments
	General knowledge about the community
Community Based Instruction	Accessing Community Resources
Please note specific CBI	Leisure Time
	Dining Out
	Shopping
Social Skills / Decision Making	Effective communication skills
	Social Skills
	Conflict management skills
Emerging Employable Skills & Career Planning	Identify a career path
	Job search
	Job application
	Interview skills
	Appropriate work behavior
	Job Skills / Expectations
	Avoids common job mistakes
	Samples a variety of potential jobs in a variety of locations
Self-Advocacy	Educational Advocacy
	Learns how to access assistance in the community
	Learns how to communicate for successful advocacy

Appendix C: Interview Questions

Client:

1. Will you introduce yourself to me?
2. Why do you think you are here?
3. What are your favorite things to do?
4. What was your favorite subject in school?
5. Do you understand what your gift is? Music, Art, Math, etc.
6. Do you like to meet new people? Why, why not, do not know
7. Will you tell me about your family? Parents, Siblings, Grandparents, etc.
8. Are you adopted?
9. Do you like to read? Will you share what types of reading material you prefer?
10. Can you tell me about your friends?
11. Have you ever lived by yourself? Where
12. Have you managed your own money? Savings Checking Debt Card
13. Do you know how to keep yourself safe? What steps do you take?
14. Have you been in a romantic relationship? Can you describe this?
15. What do you do when you get angry?
16. Have you ever been employed?
17. Do you have a driver's license or state identification and from what state?
18. Can you describe you and your family's spiritual or religious activities?
19. Have you worked with animals before? Dog, Cats, Horses
20. What question do you have of me?

Appendix D: IRB Approval

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

December 3, 2019

Sandra Schmiedeknecht

IRB Approval 4022.120319: Life Skill Curriculum Evaluation for Young Adults with an Autism Spectrum Disorder

Dear Sandra Schmiedeknecht,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason:

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, MA, CIP

Administrative Chair of Institutional Research

Research Ethics Office

Appendix E: Informed Assent

The Liberty University Institutional
Review Board has approved
this document for use from
12/3/2019 to 12/2/2020
Protocol # 4022.120319

ASSENT OF YOUNG ADULT TO PARTICIPATE IN A RESEARCH STUDY

What is the name of the study and who is doing the study?

The name of the study is LIFE SKILL CURRICULUM EVALUATION FOR YOUNG ADULTS WITH AN AUTISM SPECTRUM DISORDER. Sandy Schmiedeknecht will be doing the study.

Why are we doing this study?

We are interested in understanding how you are experiencing the life skills program at Cabin Mountain Living and the effectiveness of the coaching, mentoring and teaching life skills implemented in everyday life and the effects this has on your transition from dependence to reaching the highest level of independence in a safe environment.

Why are we asking you to be in this study?

You are being asked to be in this research study because you have a diagnosis within the Autism Spectrum and are participating in the Cabin Mountain Living Program.

If you agree, what will happen?

If you are in this study, we will begin with an initial interview to see where you are, this will be repeated in three months and six months to identify the progress you are making. Your regular assessments, classes, and outings will be unchanged.

Do you have to be in this study?

No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don't want to, it's OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It's up to you.

Do you have any questions?

You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Signing your name below means that you want to be in the study.

Signature of Young Adult Date

If the participant is not capable of reading the prepared assent form, it may be read to them in the presence of a witness from the program. If this is the case, please remove the above "Signature of Young Adult" identifier provided below the signature line and replace it with "Witness."

Researcher: Sandy Schmiedeknecht: sschmiedeknecht@liberty.edu; [REDACTED]
Faculty advisor: Dr. Lorene Heuvelman-Hutchinson: lrheuvelmanhutchinso@liberty.edu

Liberty University Institutional Review Board,
1971 University Blvd, Green Hall 1887, Lynchburg, VA 24515
or email at irb@liberty.edu.

Appendix F: Parent/Guardian Informed Consent

The Liberty University Institutional
Review Board has approved
this document for use from
12/3/2019 to 12/2/2020
Protocol # 4022.120319

PARENT/GUARDIAN CONSENT FORM LIFE SKILL CURRICULUM EVALUATION FOR YOUNG ADULTS WITH AUTISM SPECTRUM DISORDER

Sandra Schmiedeknecht; a doctoral student in the School of Behavioral Sciences; Doctor of Education in Community Care and Counseling; Marriage and Family at Liberty University, is conducting this research study. Your adult child was selected as a possible participant because he or she attends Cabin Mountain Living for Young Adults in Harman, WV. Please read this form and ask any questions you may have before agreeing to allow him or her to be in the study.

Why is this study being done? The purpose of this study is to evaluate the effectiveness of the Life Skill Integrated Model design for young adults with an Autism Spectrum Disorder (ASD) at Cabin Mountain Living. The significance of this study is to empirically evaluate life coaching and teaching specific life skills as a viable model that will provide opportunities for success in young adults with ASD in becoming as independent as possible.

What will my adult child/student be asked to do?

If you agree to allow your adult child to be in this study, [he or she] will be asked to do the following things:

1. Initial interview, assessment, and goal setting session. The estimated time will be one hour. Audio recording is planned.
2. Observation in the living environment. The estimated time will be throughout the day at intervals throughout the study approximately every two to three weeks. There are no plans for audio recording.
3. Data collection and analysis on the individual learning and behaviors; progress by evaluating content mastery, and to ensure there is effective movement in learning and moving forward. This will occur at the three month and six month interval and will be observed throughout the day. There are no plans for audio recording.
4. Observe and evaluate community based learning related to specific life skill curriculum. The estimated time will be four hours throughout the study as community based learning is scheduled. There are no plans for audio recording
5. Final assessment, interview, and review of goals at the end of the study. The estimated time is one to one and a half hours. Audio recording is planned.

What are the risks and benefits of this study?

Risks: The risks involved in this study are minimal, which means they are equal to the risks your adult child would encounter in every day life.

Benefits:

Direct Benefits: The direct benefits participants should expect to receive from taking part in this study are reviewing what he or she has been taught, new skills learned, and participation in the program benefiting him or her by meeting initial goals and creating new goals to work toward at the end of six months, through teaching and coaching methods.

Benefits to society: The potential benefits to society include an increase in awareness of adults with ASD while generating knowledge with practical application of tested effective teaching tools. Shortening the knowledge gap will provide a positive manner in which other adults with ASD may live through the development of alternative solutions. A positive change may be achieved in supporting adults with ASD in achieving their highest level of independence.

Will my adult child be compensated for participating?

Your adult child will not be compensated for participating in this study.

How will my adult child's personal information be protected?

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records. I may share the data I collect from your adult child for use in future research studies or with other researchers; if I share the data that I collect about your adult child, I will remove any information that could identify him or her, before I share the data. All data collected will be identified numerically only.

Confidentiality

- Interviews will be conducted in the life skill office location where others will not easily overhear the conversation.
- Pseudonyms will be used in place of participant names to allow for confidentiality. Data will be stored on a password locked computer with any files in a locked file cabinet. The data may be used in future presentations. After three years, all electronic records will be deleted.
- Interviews will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.

Is study participation voluntary? Participation in this study is voluntary. Your decision whether or not to allow your adult child to participate will not affect his or her current or future relations with Cabin Mountain Living Program or Liberty University. If you decide to allow your adult child to participate, he or she is free to not answer any question or withdraw at any time without affecting those relationships.

What should my adult child or I do if I decide to withdraw him or her or if he or she decides to withdraw from the study? If you choose to withdraw your adult child or if your adult child chooses to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw your adult child or

should your adult child choose to withdraw, any data collected from or about him or her will be destroyed immediately and will not be included in this study.

Whom do I contact if my adult child or I have questions or problems?

The researcher conducting this study is Sandra Schmiedeknecht You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED] and/or sschmiedeknecht@liberty.edu you may also contact the researcher's faculty advisor, Dr. Lorene Heuvelman-Hutchinson, at lrheuvelmanhutchinson@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Green Hall 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

The researcher has my permission to audio-record my child as part of his or her participation in this study.

Signature of Client Date

Signature of Parent Date

Signature of Investigator Date

Appendix G: HIPAA Consent

The Liberty University Institutional
Review Board has approved
this document for use from
12/3/2019 to 12/2/2020
Protocol # 4022.120319

AUTHORIZATION TO USE AND DISCLOSE INFORMATION FOR RESEARCH PURPOSES

Federal regulations give you certain rights related to your health information. We must obtain your written authorization before we may use or disclose your protected health information for the research purposes described below. This form may add to the information in the consent form you have already signed. You will receive a signed and dated copy of this authorization form for your records.

Introduction

This form may contain words that you do not understand. Please ask the study researcher or CEO of Cabin Mountain Living to explain any words or information that you do not clearly understand. Before deciding whether to participate in the study, you may take home an unsigned copy of this authorization form to think about, or discuss with family or friends.

In this authorization form, “you” always refers to the study subject. If you are a legally authorized representative, please remember that “you” refers to the study subject.

We also want to tell you about your rights before you agree to take part in the study.

What information may be used and given to others?

If you choose to be in this study, personal information about you and your health will be reviewed, and shared with others. This may include information that might identify you, including the following types of information:

- Demographic information, including, age, gender, guardianship, etc.
- Information from your medical records that may be relevant to the study, such as medical history, diagnoses, treatments, etc.
- Records about phone calls made as part of this research
- Records about your study visits

Do I have to give my permission for certain sensitive information to be released? Yes, the following information will only be released if you give your specific permission by putting your initials on the line(s).

_____ I agree to the release of information pertaining to mental health diagnosis or treatment.

Who may use and give out information about you?

Information about you may be used and given to others by the researcher, the CEO of Cabin Mountain Living, and her professional and administrative staff. They may also use the research information until all the research ends and all required study monitoring is over.

Who might receive this information?

Your information may be given to the researcher, her Liberty University dissertation committee, dissertation chair, and dissertation reader.

- Information about you and your health, which might identify you, may also be given to:
- Cabin Mountain Living, its subsidiaries, and persons working for or with them
- U.S. Department of Health and Human Services (DHHS) agencies
- An Institutional Review Board (IRB). An Institutional Review Board is a group of people who perform independent reviews of research as required by regulations.

Why will this information be used and/or given to others?

Information about you and your health, that might identify you, may be given to others to carry out the research study. Cabin Mountain Living professional and administrative staff will assist the research team with certain administrative aspects related to the study.

The results of this research may be published in scientific journals or presented at meetings, but your identity will not be disclosed. The information may be reviewed by an IRB to review the research as required by regulations.

What if I decide not to give permission to use and give out my health information? By signing this authorization form, you are giving permission to use and give out the health information listed above for the purposes described above. You have a right to refuse to sign this authorization. Refusing to sign this authorization will not affect your health care outside of the study, the payment of your health care, and your health care benefits. However, if you refuse to sign this authorization, you will not be able to participate in this research study.

May I review or copy the information obtained from me or created about me as it relates to this study?

If you decide to be in this study and sign this authorization form, you will not be allowed to look at or copy your health information related to this research study until after the research is completed.

Is there a fee for a copy of my medical records?

No

How long will it take to receive my records?

Cabin Mountain Living utilizes both hardcopy (paper) and electronic patient information. Hard copy records may need to be retrieved from long-term storage.

Is my health information protected after it has been given to others?

If you authorize the use and disclosure of your information, there is a risk that the information disclosed pursuant to this authorization may be re-disclosed by the recipient of your information.

Does my permission expire?

This permission to release your Personal Health Information expires when the research ends and all required study monitoring is over.

May I withdraw or revoke (cancel) my permission?

You have the right to revoke this authorization in writing at any time. When you withdraw your permission, no new health information, which might identify you, will be gathered after that date. Information that has already been gathered may still be used and given to others for use in the study. This would be done if it were necessary for the research to be reliable.

You can revoke this authorization by sending written notice to Cabin Mountain Living, Attn: Angie Shockley, CEO; 155 Bensland Rd., Suite 1, Davis, WV 26260. If you withdraw your permission, you will not be able to continue being in this study.

Authorization:

I have been given the information about the use and disclosure of my health information for this research study. I authorize the use and disclosure of my health information as described in this authorization.

AUTHORIZATION SIGNATURE:

Subject Name (Please Print)

Subject Signature Date

If the Study Subject is a minor or has a legal representative, I represent that I am the parent/legal guardian/legal representative of the Study Subject named above and I am not prohibited by Court Order from releasing access to the requested information.

Name of Subject's Parent/Legal Guardian/Legal Representative
(Please Print)

Signature of Parent/Legal Guardian/Legal Representative Date

Description of the Representative's Authority to Sign for the Study Subject