

**Evaluating the Impact of the Skills for Living Program on Quality of Life and Emotional
Intelligence in Adults with Autism**

by

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Abstract

Autism Spectrum Disorder (ASD) poses challenges for social communication, interaction, and overall well-being. In Canada, many adults with ASD do not receive support services, leading to difficulties in their everyday lives, especially during the transition to adulthood. Emotional intelligence reflects emotional and social skills as well as the characteristics that allow us to navigate social-emotional situations. As a result, emotional intelligence is vital for effective social interactions and well-being. Individuals with ASD often struggle with emotional intelligence, affecting their employment, mental health, and their overall quality of life. Emotional intelligence can be taught (Kotsou et al., 2018), but has rarely been directly investigated in ASD, despite its promise for directly addressing core difficulties of people with autism. This study evaluated the Skills for Living program's effectiveness in enhancing emotional intelligence and quality of life for adults with ASD who do not have an accompanying intellectual disability.

Participants were recruited from Asperger Manitoba Inc. and Level IT Up, and online advertisements. screened for suitability, and underwent pre-program assessments, including the Autism Quotient (AQ), Emotional Quotient Inventory 2.0 (EQ-i 2.0), and Quality of Life Inventory (QOLI). The program involves 10 group sessions. Participants completed an assessment of EI and quality of life at three time points (pre, post, and maintenance). Change in scores was evaluated using within-group paired samples t-tests and effect size calculations.

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Evaluating the Impact of the Skills for Living Program on Quality of Life and Emotional Intelligence in Adults with Autism

Autism Spectrum Disorder (ASD) is a developmental disorder characterized by persistent challenges in social communication and interaction, along with restricted and repetitive behaviour patterns, leading to significant impairments in various areas of functioning (American Psychiatric Association, 2022). It is a spectrum, meaning that the presentation of autism varies widely among individuals in terms of symptom severity, functional impairment, and developmental outcomes. In most Canadian provinces, adults with autism¹ are often ineligible for support services unless they have an intellectual disability. The prevalence rate of autism in Canada is 1-2% of the population (Public Health Agency of Canada, 2019), and it is estimated that only about 33% of people with autism have an intellectual disability (Zeidan et al., 2022). As a result, the majority of autistic adults receive little to no formal support, leaving thousands of Canadians underserved. Although this is sometimes traditionally perceived as a 'milder' form of autism, many individuals in this category still have significant and specific needs (Lorenc et al., 2018).

This lack of support can make transitioning from high school into adulthood difficult. It can also maintain existing barriers that contribute to a lower quality of life and less community participation from those on the spectrum (Anderson et al., 2018). Emotional intelligence training offers an opportunity to bridge the service gap by offering direct instruction in this core area that many people with autism struggle with.

Emotional Intelligence

¹ Both person-first and identity-first language are used by members of the autistic community today, both forms of address will be used within this paper to reflect that diversity.

Emotional intelligence (EI) refers to how we use emotion-related information in our everyday lives to navigate interactions and understand ourselves. It is a set of emotional and social skills that influence how individuals perceive themselves and others, express themselves, navigate social relationships, cope with challenges, and effectively use emotional information in various situations (Petrides, 2011), and it can be improved with instruction (Kotsou et al., 2018). Emotional intelligence has increasingly been recognized for its significance in shaping social outcomes (Montgomery et al., 2013). It comprises two primary research-based models: Trait EI and Ability EI (O'Connor et al., 2019; Petrides, 2011). Trait EI is measured by self-report, whereas ability EI is usually measured via a performance test which requires participants to do a task, and the response from the participant reveals problem-solving abilities and allows us to have some insight into the strategies they rely on in situations that require emotional intelligence (Petrides, 2011).

Correlations between trait EI and ability EI are usually found to be low (Brannick et al., 2009; Di Fabio & Saklofske, 2014), suggesting that they are indeed two separate constructs. Ability EI is highly related to overall intelligence scores (commonly known as IQ), whereas trait EI scores are often more strongly correlated with certain personality characteristics (Parker et al. 2011). Since trait EI is most often assessed through self-report measures, trait EI offers an operationalization that acknowledges the intrinsic subjectivity of emotional experiences. Trait EI is, therefore, associated with a broad set of emotional and social outcomes (Petrides et al., 2016). Because of this, O'Connor and colleagues (2019) suggest that trait EI measures be used when we seek to understand situations characterized by ongoing stressors. These are the very situations that people with autism tend to struggle with, as those without intellectual disabilities often have intact knowledge about how to reason through emotionally based scenarios (ability EI) when

provided with ample time to process information and evaluate options yet feel that their performance in real life situations is poor (trait EI) (Montgomery et al., 2010). For this reason, the current study focuses on the acquisition of trait EI skills.

Trait Emotional intelligence is a multifaceted construct that has evolved over time since the seminal work of Bar-On in 1997. The trait EI model created by Bar-On now consists of five primary components: Self-Perception, Self-Expression, Interpersonal capabilities, Decision Making, and Stress Management (Bar-On, 2011). These five components of trait emotional intelligence are structured around 15 subscales, each offering unique insights into a person's emotional and/or social functioning. For a full explanation of all 15 subscales in the trait EI model, see Table 1.

Table 1

The Domains of Trait Emotional Intelligence as Measured by the Bar-On Emotional Quotient Inventory 2.0)

Scale	Description
Self-Perception: An individual's perception of their inner self.	
1. Self-Regard	Respecting, accepting, and feeling confident in oneself.
2. Self-Actualization	The drive to improve oneself and pursue meaningful goals.
3. Emotional Self-Awareness	Recognizing and understanding one's own feelings.
Self-Expression: The outward expression of one's internal perception.	
1. Emotional Expression	How one communicates their feelings.
2. Assertiveness	Expressing emotions, beliefs, and thoughts, and asserting oneself to communicate those beliefs and thoughts effectively.
3. Independence	The capacity for self-reliance and autonomy.
Interpersonal: One's ability to develop and maintain trust-based, compassionate relationships.	

1. Interpersonal Relationships	The skills required for forming and maintaining mutually satisfying, emotionally close interpersonal relationships.
2. Empathy	The ability to understand and appreciate the feelings and experiences of others.
3. Social Responsibility	Willingness to contribute to society and show concern for the welfare of others.

Decision Making: How emotions influence decision-making processes

1. Problem Solving	The ability to find solutions to emotional situations
2. Reality Testing	One's capacity to remain objective and view things with a high degree of consistency between subjective and objective reality
3. Impulse Control	The ability to resist impulsive behaviour and make thoughtful decisions

Stress Management: one's ability to cope with the emotions associated with change, unfamiliar circumstances, and setbacks while remaining optimistic

1. Flexibility	Adaptability in dynamic situations
2. Stress Tolerance	The capacity to cope with stress in a positive manner
3. Optimism	Positive attitude and resilience in the face of challenges

Note. Adapted from Bar-On Emotional Quotient Inventory (EQ-i) 2.0 (Bar-On, 2011).

Other Indicators

Additionally, the test for trait EI used in this study (the EQ-i 2.0; Bar-On, 2011) introduces a Well-Being Indicator, which assesses happiness and overall emotional well-being, reflecting feelings of satisfaction and contentment. This well-being indicator is not a component of emotional intelligence. Rather, Happiness is seen as a product of emotional intelligence, closely related to factors like Self-Regard, Optimism, Interpersonal Relationships, and Self-Actualization (Bar-On, 2011). This indicator offers a valuable perspective on an individual's emotional health and overall life satisfaction.

Autism and Emotional Intelligence

Autism is a spectrum, meaning it encompasses diverse manifestations. A wide range of strengths and challenges that individuals may experience are influenced by factors such as the severity of the condition, developmental stage, chronological age, and gender (American Psychiatric Association, 2022). One of the hallmark symptoms of ASD is social-emotional impairments (American Psychiatric Association, 2022). Emotional intelligence is crucial for successful social interactions, communication, and overall well-being, but individuals with ASD often experience difficulties gaining and applying these emotional intelligence skills (Montgomery et al., 2018). People with ASD often exhibit difficulties in recognizing, perceiving, being aware of, and comprehending emotions (Gaigg, 2012), both in themselves (Huggins et al., 2021) and in others (Keating et al., 2023), which are all skills closely linked to their emotional intelligence. Furthermore, individuals with ASD frequently face challenges in regulating their emotions and behaviours (Samson et al., 2015).

Even when individuals with autism do not have a history of intellectual or language impairments, they frequently face significant challenges in social functioning due to the inherent struggles associated with autism. A core symptom of autism involves impairments in the skills necessary for forming and maintaining social relationships and engaging in reciprocity (American Psychiatric Association, 2022). Additionally, delayed or atypical language development, repetitive motor movements, rigid adherence to routines, and intense fixations on specific topics or objects are commonly observed (American Psychiatric Association, 2022), which can further complicate the establishment and maintenance of relationships.

The clinical descriptor "high functioning" (HFASD) has historically been added to the diagnosis of ASD to describe individuals who do not have concurrent intellectual impairment (i.e., IQ > 70) (Bal et al., 2017). However, it is important to note that this term can be misleading, as it may

not accurately represent the challenges faced by these individuals, who still grapple with significant difficulties in their daily lives and social communication skills despite their cognitive strengths (Alvares et al., 2020). Further, input from the autistic community indicates this term is problematic. Therefore, the current diagnostic criteria do not include a "high functioning" specifier; instead, they look at the severity of symptoms for social communication and restricted/repetitive behaviours. The group examined in the current study was adults who have an autism diagnosis but not an intellectual disability, as they may still have support needs (Turcotte et al., 2016).

Research on a previous ASD subgroup conducted prior to DSM 5 revealed that together, ability EI and trait EI explain 57% of the variance in self-reported interpersonal skills among young adults with Asperger's Syndrome² (Montgomery et al., 2010). Research findings also suggest a developmental progression among individuals with ASD. Adolescents (ages 13 to 17) show both trait and ability EI impairments compared to controls matched for age and gender (Boily et al., 2017). For young adults and older adolescents (16-21) who have been diagnosed with ASD, their ability EI is similar to typically developing peers (Montgomery et al., 2010). However, when it comes to their self-reported scores in trait EI domains, individuals with ASD tend to score notably lower (Brady et al., 2014; Huggins et al., 2021; Montgomery et al., 2018; Petrides et al., 2011). In particular, emotional self-awareness (a component of EI) appears to be a significant area of difficulty as age increases. Meta-analytic findings show no group differences in children under 12, but moderate to large deficits emerging in adolescence and increasing further into adulthood (Huggins et al., 2021). While these EI skills may simply develop later than

² Asperger's disorder now falls under the diagnosis of autism spectrum disorder to better represent a single continuum of mild to severe impairments in the two domains of social communication and restrictive repetitive behaviours/interests. (American Psychiatric Association, 2022)

typically developing individuals, adults with ASD still demonstrate deficits compared to their peers (Petrides et al., 2011). Therefore, their ability to interact effectively with others and form meaningful relationships is often hindered (Jobe & Williams White, 2007).

Outcomes for EI and Autism

Impaired communication and relationship difficulties create a myriad of difficulties for people on the autism spectrum. Research on outcomes for adults with ASD indicates that they face an increased risk of employment problems, including struggles with unemployment, securing suitable work aligned with their abilities, maintaining employment, and difficulties during the job interview process (Bury et al., 2021; Barnhill, 2007; Chen et al., 2015; Jennes-Coussens et al., 2006). Furthermore, they are at higher risk of experiencing mental health concerns such as anxiety disorders, depression, low self-esteem. Additionally, issues related to physical health, such as chronic health conditions, fatigue, and sensory challenges, further compound the challenges faced by individuals with autism in adulthood (Forde et al., 2021). The combined impact of these difficulties can even contribute to problems with the legal system (Barnhill, 2007; Jennes-Coussens et al., 2006). Overall, quality of life is consistently lower across all domains for autistic people when compared to the general population (Mason et al., 2018). Factors such as employment, support, and relationship status are positive predictors for overall quality of life, while mental health conditions and more severe autism symptoms are associated with reduced quality of life (Mason et al., 2018).

Unsurprisingly, Emotional intelligence also has some strong correlations with outcomes; Trait EI consistently demonstrates positive and significant associations with many key aspects of prosperity and happiness across the life span, such as well-being, health, romantic and social relationships, leadership, psychosocial adjustment, and job satisfaction (Andrei et al., 2016; Lea

et al., 2018; Di Fabio and Saklofske, 2019; Sarrionandia and Mikolajczak, 2019; Piqueras et al., 2020). Trait EI is also related to increased post-secondary education participation (Dave et al., 2019). Furthermore, trait EI has been demonstrated to influence coping strategies during stressful situations, such as pandemics (Prentice et al., 2020). Conversely, lower levels of ability EI in males were linked to maladaptive and potentially harmful behaviours, including illegal drug and alcohol use, poor relationships with peers, and deviant behaviour (Brackett et al. 2004).

Recognizing the challenges confronted by individuals with ASD and acknowledging the positive impact of emotional intelligence prompts promising avenues for exploration.

Interventions targeting EI in adults with ASD may be crucial for improving functioning and other life outcomes if they produce a more balanced EI profile and facilitate the application of EI skills which participants cognitively understand.

Emotional Intelligence Interventions

While social skills interventions for ASD exist, these approaches often emphasize external social behaviours and may give less attention to the internal emotional experience of the individual and how it influences interactions (Bishop-Fitzpatrick et al., 2013; Spikman et al., 2021). Moreover, while targeted interventions generally demonstrate some effectiveness for specific, outcome measures, they often show limited generalization to broader, real-world social functioning (Pallathra et al., 2019; Spikman et al., 2021). Emotional intelligence training represents a broader approach by incorporating elements of emotional awareness and regulation, in addition to understanding others' social behaviours. It encourages individuals to recognize and manage their own emotions, while also becoming more responsive to the emotional cues of others (Bar-On, 2011). The aim of EI training is to support the constructive use of emotional information in areas such as relationships, decision-making, and self-awareness, potentially contributing to more

meaningful social-emotional functioning (Bar-On, 2011). In this way, emotional intelligence Training programs like Skills for Living provide a more holistic approach to group psychoeducation by focusing on emotional intelligence as a way to learn about life.

The Skills for Living program is a consumer-driven intervention initially developed by Dr. Montgomery and her lab members (Social Cognition Lab, University of Manitoba) in 2010 (Montgomery et al., 2014). It was created to offer individuals with ASD a chance to learn and practice a range of social and practical skills relevant to everyday life. The goal was to help them build the abilities needed to form relationships, engage in meaningful employment, and achieve greater independence. Unlike traditional social skills interventions, which often prioritize external behavioural norms over personal insight and autonomy, Skills for Living emphasizes the development of internal capacities such as self-awareness, emotional regulation, and self-expression. This approach places participants' autonomy and emotional experiences at the center of the learning process. It also promotes the generalization of new skills into real-life situations using group activities and outings to facilitate peer interaction, potentially leading to the development of new friendships within the group. This internal, person-centered orientation is not only more respectful of neurodiverse identities (Milton, 2012), but it is also more likely to align with participants' real-world goals and experiences (Pellicano et al., 2014).

The 2024 Skills for Living program³ was updated to ensure content and language were appropriate for contemporary contexts and to increase direct instruction related to Emotional intelligence. These lessons begin with an introduction to what emotional intelligence is and why it matters in daily life. From there, participants explore the connection between emotional intelligence and self-awareness, learning how to recognize and understand their own emotional

³ See Appendix B for the Skills for Living 2024 Table of Contents

responses. They are also introduced to goal-setting strategies that help them identify personal objectives and outline steps to achieve them.

As the lessons progress, the focus shifts to emotions and self-regulation, including how to manage emotions in ways that promote happiness and personal well-being. Time is also spent on tools for managing difficult emotions such as anger and meltdowns. The program then turns to interpersonal relationships and social communication, providing guidance on navigating both face-to-face and digital interactions, including the use of social media.

Finally, in the more application based lessons, common challenges in adult life are addressed, such as maintaining workplace relationships and managing the process of getting and keeping a job. The topic of dating is also included, covering issues like communication, boundaries, and building healthy relationships. The program concludes with a wrap-up session that reviews key material and supports participants in identifying strategies for continued growth.

These updates were made to make the program more comprehensive and better aligned with the current experiences of adults with ASD. The modification to enhance emotional intelligence lessons and include topics such as social media responds directly to feedback from participants in previous groups. These curricular updates were informed by feedback from past participants and designed to make the program more comprehensive and relevant to the lived experiences of autistic adults. An earlier version of the program was piloted beginning in 2010, with four groups completed by 2012. A total of 24 males and 10 females with Asperger's Syndrome participated. Pre- and post-program data were collected for evaluation purposes in the first three groups using the Emotional Quotient Inventory (Short Form) (EQ-i:S) and the Quality of Life Inventory (QOLI). Preliminary findings from this pilot (North et al., 2012, 2014) support

the program's approach, with participants reporting significant improvements in overall social and emotional functioning, intrapersonal skills, and adaptability.

Purpose of the Study

The primary goal of this pilot study was to evaluate the effectiveness of the updated Skills for Living program in enhancing emotional intelligence and quality of life for adults with ASD, as a component of the overall program evaluation. More specifically, we aimed to understand the effectiveness of the updated Skills for Living program in improving social and emotional functioning by measuring changes in trait emotional intelligence. To accomplish this, we measured quality of life and trait emotional intelligence on three separate occasions: before the program, after the program, and one month later. We hypothesized that participants would experience gains in the emotional intelligence areas that they struggle with and see an overall improvement in their quality of life as a result of the program.

Program Logic Model

The Skills for Living Program Logic Model in Appendix A summarizes program components and provides structure to explain how program elements relate to one another. In this model, inputs such as participant and facilitator time, researcher support, funding, and space are used to deliver a 10-session curriculum focused on developing emotional and interpersonal skills. These structured activities result in direct outputs such as the prepared participant and facilitator manuals, facilitator experience, and completed sessions. In the short to medium term, participants were expected to show improvements in overall emotional intelligence and related skills such as self-expression, stress management, decision-making, and interpersonal communication. The long-term goal is that these new skills increase happiness and enhance overall quality of life, as measured by the EQ-i 2.0 and the Quality of Life Inventory (QOLI).

To evaluate the outcomes in our program logic model, our research questions were:

1. Does the Skills for Living program improve general emotional intelligence in people with autism who do not have an intellectual disability?
 - a. Are EI improvements maintained over time?
2. Do each of the five primary emotional intelligence subscales improve in people with autism who do not have an intellectual disability?
3. Does the Skills for Living program improve overall quality of life in people with autism who do not have an intellectual disability?
 - a. Are quality of life improvements maintained over time?

Methods

The study utilized a pre-post-post design to examine shifts in emotional intelligence and quality of life following engagement in the Skills for Living program. Paired samples t-tests or appropriate non-parametric tests were employed to gauge changes in emotional intelligence, assessed using the Emotional Quotient Inventory 2.0 (EQ-i 2.0; Bar-On, 2011) and quality of life, measured using the Quality of Life Inventory (QOLI). The application of these metrics both before and after the intervention enabled evaluation of the Skills for Living program's impact on participants' emotional intelligence and overall quality of life. Additionally, post-intervention follow-up assessments were conducted to ascertain the sustainability of any observed changes over time. A post-hoc power analysis was completed using G*Power (Faul et al., 2007), which can be found in Appendix D. However, small samples were expected because in community/in-person settings, it can be difficult to reach a narrow target population.

Participants

Participants were recruited through social media ads by Asperger Manitoba Inc.⁴ and Level IT Up⁵. Potential group members were interviewed prior to the beginning of the program to ensure group fit. During the interview, facilitators screened participants to ensure that they met inclusion criteria (an autism diagnosis, goals that align with other participants') and exclusion criteria (no intellectual disability, lack of concerning behaviour that would make group therapy inappropriate). After interviews, groups were formed based on similar goals for personal growth to ensure we can address the topic areas most important to participants, as well as the availability of participants.

Procedures

Stage 1

People who responded to local advertisements and who met initial inclusion criteria were interviewed to screen for group suitability. During that meeting, the program was explained, and facilitators verbally went over consent forms with participants. Informed consent from the participants was obtained prior to the administration of the pre-program measures.

Stage 2

Once a person's consent and participation in the program were confirmed, they were sent online pre-program assessments. We assessed trait EI using the Emotional Quotient Inventory 2.0 (EQ-i 2.0; Bar-On, 2011), which was administered remotely via the MHS online platform. Quality of life was evaluated through the Quality of Life Inventory (QOLI; Frisch, 1994)), and this measure was administered using Pearson's online administration system, Q-global. The

⁴ A not-for-profit organization which provides support and services for individuals with autism and their families.

⁵ A not-for-profit organization dedicated to increasing the employment of Manitobans identifying as being on the autism spectrum in Science, Technology, Engineering, the Arts, and Math

Autism-Spectrum Quotient (AQ) (Baron-Cohen et al., 2001), being a non-protected measure, was administered through a Qualtrics survey, and data was manually scored.

Stage 3

Participants meeting eligibility criteria and who had completed pre-test measures were invited to a non-profit organization called Manitoba Possible in Winnipeg, Manitoba, to take part in 10 group sessions that were each 1.5 hours in length.

Stage 4

Participants who completed the intervention were sent online post-test assessment measures after the intervention was completed and one month after the intervention was over. These included the Quality of Life Inventory (QOLI; Frisch, 1994), the Emotional Quotient Inventory 2.0 (EQ-i 2.0; Bar-On, 2011). Participants were also asked to provide feedback on the acceptability and feasibility of the intervention, as well as qualitative information on perceptions of program value and limitations. This feedback will be used in program evaluation and will not be analyzed directly for the purpose of this thesis.

Measures

Autism Quotient (AQ)

Autistic traits were assessed using the Autism-Spectrum Quotient (AQ), a 50-item self-report questionnaire developed by Baron-Cohen et al. (2001). The AQ is designed to measure the degree to which an individual of average intelligence exhibits traits associated with the autism spectrum. Items are scored in a forced-choice format, with responses indicating either typical or atypical (i.e., "autistic") behaviour. One point is awarded for each response indicative of autistic traits, yielding a maximum possible score of 50. The AQ comprises five subscales: Social Skill, Attention Switching, Attention to Detail, Communication, and Imagination.

A score of 32 or higher was originally suggested by the developers as indicative of "clinically significant levels of autistic traits" (Baron-Cohen et al., 2001). However, a lower cut-off score of 26 has been shown to identify a greater percentage of individuals with autism, correctly classifying 83% of patients compared to 76% at the 32-point threshold (Woodbury-Smith et al., 2005). As a result, the cutoff score of 26 for the AQ is now used for screening purposes. The AQ is not intended to serve as a diagnostic instrument, it was designed to be a descriptive measure of autistic traits. In this study, the AQ serves as a tool for the validation of autism symptoms of the participants. Although it is not directly involved in the experimental aspects of the research, it provides a means of validating and quantifying the presence of autism-related symptoms in the study participants who self-reported that they were diagnosed with ASD.

Emotional Quotient Inventory 2.0 (EQ-i 2.0)

The EQ-i 2.0 is a self-report measure of trait emotional intelligence designed for people 18 years of age and older. It was used to assess social and emotional functioning. The EQ-i 2.0 generates a total EI composite score and subscale scores related to Self-Perception, Self-Expression, Interpersonal Capabilities, Decision Making, Stress Management, General Well-being, and Response Styles. Details of the scales and subscales within this test can be found in Table 1 and the "Other Indicators" section below it. The EQ-i 2.0 consists of 104 items and takes approximately 20-30 minutes to complete. The EQ-i 2.0 employs a 5-point Likert-type rating system with descriptors ranging from "Never/Rarely" to "Always/Almost Always". The reliability and validity evidence provided for this instrument is acceptable (Bar-On, 2004; Conte, 2005).

The EQ-i 2.0 demonstrates strong reliability through high internal consistency values across normative groups, age, and gender subgroups. Test-retest reliability is also high at 2- to 4-

week and 8-week intervals, which makes it an appropriate tool for this repeated measure study design. The assessment's validity is established by capturing Bar-On's EI facets, supported by factor analyses and confirmatory factor validation. Expected correlations with EQ-i (Bar-On, 2004) and measures of social skills (Riggio & Carney, 2003) and general personality (Costa & McCrae, 1992), as well as a lack of correlation with measures of ability-based EI (Mayer et al., 2002) and cognitive intelligence (Watson & Glaser, 2009) are evidence of the EQ-i 2.0's construct validity. The assessment's capacity to distinguish between groups, absence of racial bias, and built-in validity scales (measures of inconsistency and positive impression) further reinforce its credibility as a measure of EI. Social desirability, a common concern in self-report tools, is partially addressed through the EQ-i 2.0's embedded validity checks. The EQ-i 2.0 was employed to capture hypothesized growth in EI domains resulting from the group intervention.

Quality Of Life Inventory (QOLI)

The Quality of Life Inventory (QOLI) was specifically designed for use with clinical populations and is grounded in theories of subjective well-being and life satisfaction. It assesses satisfaction across 16 life domains⁶ and provides an overall measure of global quality of life. This global measure is based on the principle that global quality of life reflects the sum of domain satisfaction scores. However, Frisch (1994, 1998) proposed that domains deemed more important to the individual have a greater impact on their overall quality of life, so each domain's satisfaction score is weighted by its personal importance when calculating global quality of life. In this study, the QOLI, a 32 question self-report questionnaire was used to allow participants to rate their quality of life at three time points, pre, post and follow-up. It took approximately five minutes for participants to complete. The QOLI aimed to capture changes in quality of life

⁶ Health, self-esteem, goals and values, money, work, play, learning, creativity, helping, love, friends, children, relatives, home, neighbourhood, and community.

resulting from the intervention. The reliability and validity evidence for this measure is acceptable (Frisch et al., 1992; McAlinden & Oei, 2006).

Analysis

Missing Data

When data was missing, it was usually whole tests instead of individual questions on the scales used because of the way the online administrations are set up. The administration system flagged missing answers and gave participants warnings or was forced choice. All questions were answered if the measure was complete. Participants who did not complete assessments before and after the intervention were not included in the analysis.

Assumption Checking

In this study, paired-samples t-tests, corresponding Shapiro-Wilk tests, and visual inspection of histograms and Q-Q plots were used to examine changes in emotional intelligence and quality of life across three time points for total EI, EI subscales, and quality of life scores. The presence of extreme outliers was also evaluated, as these can distort the distribution and affect the validity of the results. Because the paired-samples t-test does not require the assumption of homogeneity of variance due to its within-subjects design, that assumption was not evaluated. See results for more details on findings related to normality.

Effect Size Calculation

Effect sizes were calculated using Cohen's d to quantify the magnitude of change from pre-intervention to post-intervention for each outcome, with Hedges' correction applied to adjust for small sample size bias. Cohen's d provides a standardized measure of the mean difference between time points and allows for a practical interpretation of the results, with values of 0.2, 0.5, and 0.8 typically representing small, medium, and large effects, respectively. Effect size was

evaluated for overall emotional intelligence, as measured by the EQ-i 2.0, and its five constituent scales (Self-Perception, Self-Expression, Interpersonal Capabilities, Decision Making, and Stress Management) and Quality of Life, as measured by the QOLI. Findings are presented in the results section.

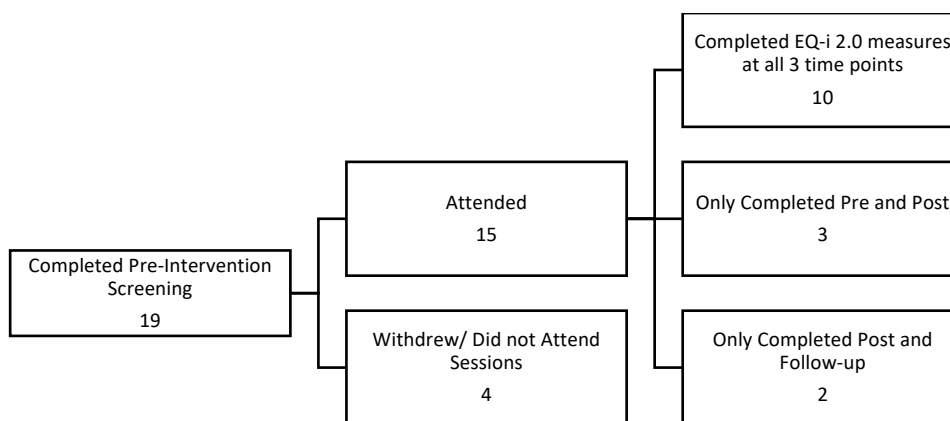
Results

Descriptives

A total of 18 people participated in at least one phase of the research study. Three participants completed the pre-intervention measures but then chose not to participate in the Skills for Living program and Five participants only completed two out of the three time points. Consequently, the final sample included 10 participants. See Figure 2 for a flow chart of participant enrolment and attrition. Given the modest sample size ($N = 10$), both Cohen's d and Hedges' correction were calculated to estimate effect size, with the latter providing a more conservative correction.

Figure 2

Flow chart of participant enrolment and attrition.



Across the full sample of people who completed the Skills for Living program ($N = 15$), participants ranged in age from 19 to 58 years ($M = 35.00$, $SD = 13.50$). Gender identities

reported included cisgender women ($n = 5$), cisgender men ($n = 9$), and nonbinary/gender-diverse individuals ($n = 1$). Among the subgroup who completed all three time points ($n = 10$), the age range was 21 to 58 years ($M = 37.77$, $SD = 12.61$). This group included 4 cisgender women, 5 cisgender men, and 1 nonbinary participant. All participants had a (self-reported) formal autism diagnosis. None of the participants had a diagnosed intellectual developmental disorder and they were all fluent in English.

Autism-Spectrum Quotient (AQ)

A total of 9 adult participants completed the Autism-Spectrum Quotient (AQ) who also completed other measures. The mean AQ total score was 32.33, with individual scores ranging from 25 to 40. As expected in a clinically diagnosed autistic sample, the majority of participants (6 out of 9; 67%) scored at or above the suggested clinical threshold of 32 (Baron-Cohen et al., 2001), and almost all (8 out of 9; 89%) of the participants scored above screening threshold of 26 (Woodbury-Smith et al., 2005). In addition, all the participants scored well above neurotypical norms (control group average ≈ 16.4 ; Baron-Cohen et al., 2001).

Research Question 1: Overall Emotional Intelligence

Total EI Assumption Checking.

Normality of the EQ-i 2.0 Total Score difference scores was assessed for each paired comparison (pre $\rightarrow$ post, post $\rightarrow$ follow-up) using both visual inspection (histograms and Q-Q plots) and the Shapiro–Wilk test. Results indicated that the pre to post difference scores did not significantly deviate from normality, $W = .968$, $p = .869$, and no outliers were identified. Similarly, the post to follow-up difference scores were normally distributed, $W = .961$, $p = .803$, with no outliers. Based on these results, the data were deemed suitable for parametric analysis using paired-samples t-tests.

Total EI Change During the Skills for Living Program

The data were analyzed using a paired-samples t-test to compare pre and post means; hypotheses were two-tailed. The mean standard score of Total EQ as measured by the EQ-i 2.0 was 79.7 (SD=10.01) before participating in the program and rose to 92.7 (SD=14.09) after completion of the ten sessions. The t-test confirmed that participants' EQ-i Total Scores were significantly higher after the intervention than before it, $t(9) = 3.54, p = .006$, with a large effect size (Cohen's $d = 1.12$; Hedges' $g = 1.02$).

Are total EI changes maintained over time?

Immediately after the ten sessions, overall emotional intelligence scores had risen to a mean of 92.7 (SD = 14.09). At follow-up, one month later, the mean Total EQ score increased slightly again to 95.6 (SD = 12.63). A paired-samples t-test indicated that this increase from post-intervention to follow-up was not statistically significant, $t(9) = 1.29, p = .229$, though the effect size was small to moderate (Cohen's $d = 0.41$; Hedges' $g = 0.37$).

Research Question 2: Emotional Intelligence subscales***EI Subscales Assumption Checking.***

Assumption testing was conducted for the five emotional intelligence subscales: Self-Perception, Self-Expression, Interpersonal, Decision Making, and Stress Management, across three time points (pre, post, and follow-up). The normality of the pre-post difference scores for each time point was evaluated using the Shapiro-Wilk test and visual inspection of Q-Q plots.

As shown in Table 2, all subscales except Self-Expression met the assumption of normality. The Self-Expression difference scores significantly deviated from normality ($W = .829, p = .032$). A Q-Q plot suggested that the distribution was skewed due to a high-scoring participant. Winsorization was applied to reduce this influence while preserving the participant

in the dataset. After Winsorizing the post-intervention value, the distribution no longer violated normality ($W = .850$, $p = .059$), and was deemed acceptable for parametric analysis. Given these results, paired-samples t-tests were used for all pre–post comparisons.

Table 2

Normality Assumption Checking for Emotional Intelligence Subscales Using Shapiro–Wilk Test

Subscale	Time Point	Shapiro–Wilk statistic	p	Normality Assumption Met?
Self-Perception	Pre -Post	0.894	0.189	Yes
	Pre -Post	0.829	0.032	No
Self-Expression	Pre –Post (Winsorized post) ⁷	0.850	0.059	Yes
Interpersonal	Pre -Post	0.905	0.251	Yes
Decision Making	Pre -Post	0.94	0.548	Yes
Stress Management	Pre -Post	0.949	0.656	Yes

Emotional Intelligence Subscales Analysis

In addition to increases in Total EQ, paired-samples t-tests were conducted to assess changes in the five EQ-i 2.0 composite scales from pre-intervention to post-intervention; hypotheses were two-tailed. All domains showed statistically significant improvements, see Table 3 for an overview of these results.

⁷ According to Angrist and Kreuger (2000), “loosely speaking, winsorizing the data is desirable if the extreme values are exaggerated versions of the true values, but the true values still lie in the tails. Truncating the sample is more desirable if the extremes are mistakes that bear no resemblance to the true values” (p. 1349).

Table 3*Pre-Post Changes in EQ-i 2.0 Subscale Scores with Effect Sizes (Including Winsorized Variable)*

		Mean	N	SD	Paired t-test					Effect Size	
					Mean Difference	SD	t	df	p	Cohen's d	Hedges' correction
Self-Perception	Pre	86.70	10.00	12.28	9.30	10.42	2.82	9	0.02	0.892	0.815
	Post	96.00	10.00	14.82							
Self-Expression	Pre	75.20	10.00	12.11	9.00 ^a	12.41 ^a	2.29 ^a	9 ^a	0.048 ^a	0.725 ^a	0.663 ^a
	Post	84.20 ^a	10.00	7.76 ^a							
Interpersonal	Pre	89.40	10.00	8.76	9.40	9.05	3.29	9	0.009	1.039	0.95
	Post	98.80	10.00	14.92							
Decision Making	Pre	80.90	10.00	11.77	13.10	13.44	3.08	9	0.013	0.975	0.891
	Post	94.00	10.00	12.05							
Stress Management	Pre	79.80	10.00	15.15	13.00	12.75	3.22	9	0.01	1.019	0.931
	Post	92.80	10.00	19.71							

^a Calculated with winsorized values in the “Post” time point

Self-Perception mean standard scores increased from a pre-intervention mean of 86.70 (SD = 12.28) to 96.00 (SD = 14.82), yielding a mean difference of 9.30 (SD = 10.42). This change was statistically significant, $t(9) = 2.82, p = 0.02$. The effect size was large, with Cohen's $d = 0.89$ and Hedges' $g = 0.82$, indicating that participants made meaningful gains in skills like self-regard, self-awareness, and goal pursuit.

Self-Expression mean standard scores increased from 75.20 (SD = 12.11) to 84.20 (SD = 7.76) in the winsorized data, with a mean difference of 9.00 (SD = 12.41), $t(9) = 2.29, p = .048$. This result was statistically significant, with a Cohen's $d = 0.73$ and Hedges' $g = 0.66$, indicating a moderate/medium effect size.

Interpersonal functioning improved significantly from a standard mean of 89.40 (SD = 8.76) to 98.80 (SD = 14.92), with a mean difference of 9.40 (SD = 9.05), $t(9) = 3.29, p = 0.009$.

This result was associated with a Cohen's $d = 1.04$ and Hedges' $g = 0.95$, representing a large effect and strong enhancement in empathy, relationship-building, and social responsibility.

Decision Making standard scores increased from 80.90 (SD = 11.77) to 94.00 (SD = 12.05), with a mean difference of 13.10 (SD = 13.44), $t(9) = 3.08$, $p = 0.013$. The effect size was large, with Cohen's $d = 0.98$ and Hedges' $g = 0.89$, indicating improvements in impulse control, reality testing, and problem solving.

Stress Management also showed significant improvement, with standard scores rising from 79.80 (SD = 15.15) to 92.80 (SD = 19.71). The mean difference of 13.00 (SD = 12.75) was statistically significant, $t(9) = -3.22$, $p = 0.01$. The effect size was large, with Cohen's $d = 1.02$ and Hedges' $g = 0.93$, suggesting enhanced emotional resilience and stress tolerance.

Research Question 3: Overall Quality of Life

Quality of Life (QOLI) Assumption Checking

Prior to conducting paired-samples t-tests for Overall Quality of Life (QOLI) T scores, the distribution of the difference scores between paired observations was examined using the Shapiro–Wilk test. The difference scores for both the pre–post and post–follow-up comparisons were approximately normal, with no outliers identified. For the pre–post comparison, the Shapiro–Wilk test indicated $W = .975$, $p = .936$. For the post–follow-up comparison, $W = .868$, $p = .143$. Visual inspection of Q-Q plots and histograms for both sets of difference scores supported this interpretation. Based on the results of the Shapiro–Wilk tests, the QOLI data were considered suitable for further analysis using paired-samples t-tests.

Quality of Life pre-post analysis

From pre- to post-intervention, the mean quality of life T score rose slightly from 43.44 (SD = 11.59) to 44.00 (SD = 8.34), a negligible mean difference of 0.56 (SD = 9.65). This

change was not statistically significant, $t(8) = -0.17, p = 0.867$. The associated effect sizes were very small (Cohen's $d = 0.06$, Hedges' $g = 0.05$), indicating minimal change in participants' perceived quality of life immediately after the program.

Are Quality of Life changes maintained over time?

From post-intervention to follow-up, T scores increased from 43.00 (SD = 10.27) to 45.89 (SD = 7.39), with a mean difference of 2.89 (SD = 6.79). Although this reflects a slight move in the right direction, it was not statistically significant, $t(8) = -1.28, p = 0.238$. The effect size was small to moderate (Cohen's $d = 0.43$, Hedges' $g = 0.38$).

From pre-intervention to follow-up, mean scores rose from 45.56 (SD = 11.17) to 47.67 (SD = 7.97), with a mean difference of 2.11 (SD = 10.74), $t(8) = -0.59, p = 0.572$. The effect size was small (Cohen's $d = 0.20$, Hedges' $g = 0.18$), again indicating a non-significant and limited change over time.

Table 4

Summary Table for Changes in Quality of Life

					Paired t-test				Effect Size		
		Mean	N	SD	Mean Difference	SD	t	df	p	Cohen's d	Hedges' correction
Overall Quality of Life	Pre	44.75	8	11.66	.75	10.29	.206	8	0.843	0.073	0.065
	Post	45.50	8	7.50							
	Post	45.50	8	7.50	1.00	4.00	.707	8	0.502	0.250	0.222
	Follow-up	46.50	8	7.65							

Discussion

The current study sought to evaluate the effectiveness of the Skills for Living program⁸ in enhancing trait emotional intelligence and quality of life among adults with autism spectrum

⁸ For more information on the contents of the Skills for Living program, see Appendix B.

disorder (without an accompanying intellectual disability). Additional research goals included evaluation of change in EI subcomponents (as measured by the EQ-I 2.0) and understanding if any changes were sustained over time.

Context: Heterogeneity of Participants

Adults with Autism Spectrum Disorder (ASD) represent a heterogeneous population, and this was reflected in the sample of individuals who completed all three measurement time points in the current study. The inclusion of both younger and older adults—ranging in age from 21 to 58 years ($M = 37.77$, $SD = 12.61$)—provided valuable diversity and added meaningful depth to the findings. This age representation is particularly important given the growing recognition that autistic individuals face different challenges and priorities across the adult lifespan (Lever & Geurts, 2016). Research has emphasized that service needs and access shift significantly with age, with older autistic adults often experiencing more unmet needs in areas such as mental health, social participation, and life skills supports (Lai & Weiss, 2017). This underscores the importance of including a diverse sample in autism intervention research, as programs intended for such a heterogeneous population must be evaluated across a range of age groups to ensure they are broadly effective and responsive to the evolving needs encountered throughout adulthood.

The sample also included a mix of gender identities—four cisgender women, five cisgender men, and one nonbinary individual. The inclusion of women and gender-diverse participants is particularly notable, as these groups are frequently underrepresented in autism research (D'Mello et al., 2022). Autistic women and gender-diverse individuals often present with different symptom profiles or coping strategies and may be underrepresented or mischaracterized in traditional ASD research and interventions (Lai et al., 2015). Including these

perspectives represents a critical step toward inclusive research practices and has implications for the development of interventions that are responsive to the unique experiences and support needs of these gender groups.

All participants reported a formal ASD diagnosis without intellectual disability and were fluent in English. AQ scores among those who completed the Autism-Spectrum Quotient ($n = 9$) ranged from 25 to 40, with a mean of 32.33. The majority (67%) scored above the clinical threshold of 32, and nearly all (89%) exceeded the screening threshold of 26, consistent with expectations for a formally diagnosed sample. These findings are consistent with previously documented AQ profiles in autistic populations (Baron-Cohen et al., 2001; Ruzich et al., 2015; Woodbury-Smith et al., 2005), suggesting this group is representative. For details on the subscales of the AQ observed for this group, see Appendix C.

Emotional Intelligence Gains in ASD

Improvements in trait EI may be particularly meaningful in the context of ASD, where trait EI is often impaired (Montgomery et al., 2010; Petrides et al., 2011). Before the intervention began, participants had trait EI scores that were often between 1-2 standard deviations below the test's mean (EQ-i 2.0 has a mean of 100 and a SD of 15; 80% of participant scores before the intervention were in the 70s). At that time, the total EI mean in our sample was 79.7. Following the intervention, participants scored on average 92.7 for their total EI. These were statistically significant gains in overall trait emotional intelligence following the intervention, which had a large effect size—an outcome consistent with prior evidence that trait EI is a modifiable trait (Kotsou et al., 2018). Clinically, the jump in total EI mean scores from 79.7 before the program, to 92.7 afterwards is meaningful because it represents a change from an impaired range to average scores. This pattern is consistent with the goal of the intervention—to build emotional

intelligence skills during the active phase. The *Skills for Living* program focused specifically on trait EI through areas of known difficulty for this population (see Gaigg, 2012; Samson et al., 2015). The observed improvements suggest that the program is successful in addressing some of these challenges with direct instruction about emotional intelligence and teaching skills like tools for adaptive emotion regulation.

Further, slightly increased total EI was shown over time after the program concluded. However, gains made after the program were small, and those results were non-significant. The lack of significant change one month after the program ended suggests that participants retained the skills learned and may have continued to apply them independently in the weeks following the program. These trends support the interpretation that the intervention had a lasting impact on overall trait emotional intelligence.

Improvements in areas measured by EI subscales (Self-Perception, Self-Expression, Interpersonal, Decision Making, and Stress Management) indicated that participants became better equipped to manage emotional challenges and navigate complex social interactions through the use of skills in those domains. While all areas showed significant improvement, decision making and stress management showed the steepest improvements during the intervention, as can be seen in Table 3. These scores went from the low range to the average range, suggesting the program had a particular impact on these important aspects of successful social emotional processing. These changes are especially meaningful in light of the specific challenges autistic individuals commonly face with decision-making. Research has shown that people with autism often experience cognitive exhaustion, avoidance of decision-making, and mental “freezing” when faced with choices (Hill, 2004). This difficulty has been at least partially attributed to a reduced reliance on emotional heuristics that typically ease decision-making (De

Martino et al., 2008). The ability to better understand and utilize emotional information in decision-making is particularly valuable in social situations, where cues are often ambiguous, incomplete, and not easily interpreted through logic alone.

Stress Management as conceptualized by the EQ-i 2.0 is “how well one can cope with the emotions associated with change and unfamiliar or unpredictable circumstances, while remaining hopeful about the future and resilient in the face of setbacks and obstacles.”. As the results of this study (see Table 3) show, participants in the Skills for Living program showed significant gains in this area. These improvements are especially relevant considering that autistic individuals tend to report elevated levels of perceived stress, particularly in areas related to work and close relationships (Moseley et al., 2021), which are areas directly addressed in the Skills for Living program.

Overall, these are precisely the proximal outcomes outlined in the program’s logic model: skills expected to shift directly as a result of program participation. That such changes occurred immediately following the program provides strong support for the intervention’s short-term impact.

Improvements in Quality of Life

While emotional intelligence scores improved significantly post-intervention, the changes in overall quality of life were minimal. Mean Quality of Life T scores showed slight increases across time points, rising from 44.75 at pre-intervention to 45.50 post-intervention, and to 46.50 at follow-up. However, none of these differences were statistically significant. Although quality of life scores showed a slight upward trend across the three time points, effect sizes were negligible or small. This suggests that while participants may have developed emotional skills, these changes may not have translated into broad shifts in perceived life quality within the time

frame measured. It is also worth noting that when these small, statistically non-significant quality of life changes did occur, the changes were not observed during the program itself, but emerged only after its completion, at the one-month follow-up.

The lack of change in QOLI scores could have occurred for several reasons, including measurement limits. The QOLI measures Health, Self-Esteem, Goals-&-Values, Money, Work, Play, Learning, Creativity, Helping, Love, Friends, Children, Relatives, Home, Neighborhood, and Community and it weights these different areas based on how important they are to the individual. This means that even if the Skills for Living program improved scores in any of these areas of life, if a participant did not rate that area of life as important to them it would not be factored into their overall quality of life T score. These areas are also very amenable to life changes outside the program. For example, a breakup of a romantic relationship may heavily impact satisfaction in the “love” area of life, which make this a very useful metric for gauging how well someone is doing at the time but not for gauging how well they are handling that dissatisfaction, and we had no way to control for those factors in our study. For this reason, it may be useful to look to each of these 16 areas of life to examine more precise changes that participants experienced, to gain a more meaningful understanding of their quality of life at each time point.

This delayed effect of small improvements in quality of life only after the intervention would also be consistent with the Skills for Living logic model, which conceptualizes emotional intelligence as a catalyst for long-term change. According to the model, improvements in EI are necessary precursors that enable individuals to engage more effectively with their environments, make better decisions, and build more fulfilling relationships. As Alkin and colleagues (2025) explain, “depending on the nature of the program activity and the related output, short-term

outcomes might be measurable immediately after the activity is completed. ... By contrast, you might need to wait a few weeks or many months to determine whether participants have truly been able to hone an ability. ... some outcomes, such as perception or attitude, might require a year or more worth of evidence- gathering to be quantified (p.72)". In this case, emotional intelligence gains were expected to appear shortly after the intervention, while changes to quality of life—being more distal—may take longer to surface. The lag we observed is therefore consistent with a staged theory of change, in which foundational skills shift first, followed by broader life outcomes over time (Alkin et al., 2025; W.K. Kellogg Foundation, 2017). Other emotional intelligence interventions have shown impacts on quality of life or life satisfaction in other populations, though participants in those studies typically started with average emotional intelligence scores (see Yalcin et al., 2008; Kotsou et al., 2011).

This pattern highlights the importance of conducting follow-ups beyond the immediate post-intervention period. It is likely that participants needed time and real-life practice to begin integrating emotional skills into their daily lives—such as regulating emotions at work, navigating dating or friendships, or advocating for themselves in healthcare or educational settings. Hence, while quality of life scores trended positively, the short follow-up window may not have been sufficient to detect significant improvements. Although emotional intelligence improvements did not result in a statistically significant change in quality of life, scores did trend positively, and this change was observed largely due to the inclusion of a follow-up time point, which is relatively rare in emotional intelligence research (Kotsou, 2019).

Implications

Emotional intelligence training programs have gained increasing support in the literature as promising tools for enhancing individuals' social-emotional functioning and related life

outcomes. Numerous studies have demonstrated that targeted interventions can lead to measurable improvements in emotional intelligence across diverse populations, including students, healthcare professionals, and clinical groups (Kotsou et al., 2018). These gains are associated with greater emotional regulation, improved interpersonal relationships, and, in some cases, enhanced well-being and life satisfaction (Mayer et al., 2008; Nelis et al., 2009; Kotsou et al., 2011). Findings from the current study contribute to this growing body of research. Participants showed significant improvements in emotional intelligence following the intervention, indicating that this type of structured programming can be effective in cultivating essential intrapersonal and interpersonal competencies, as well as enhancing stress management and decision making.

This research also points to the critical gap in services for autistic adults who do not have intellectual disabilities. These individuals are frequently underserved despite experiencing substantial difficulties in emotional regulation, social navigation, and mental health (Turcotte et al., 2016; Howlin & Magiati, 2017). The findings from this study demonstrate that a structured, emotionally focused program can yield meaningful psychological and functional benefits in this population.

The program's emphasis on internal self-awareness, emotional regulation, and self-expression represents a shift from traditional social skills interventions, which often prioritize external behavioural norms over personal insight and autonomy. The Skills for Living program emphasized the development of internal capacities—such as self-awareness, emotional regulation, and self-expression—placing participants' autonomy and emotional experiences at the center of the learning process. This approach is not only more respectful of neurodiverse identities (Milton, 2012), but it is also more likely to produce sustainable outcomes by fostering

skills that generalize across contexts and align with participants' real-world goals and experiences (Pellicano et al., 2014). Moreover, the consumer-driven design likely contributed to participant engagement and the program's acceptability.

Limitations and Future Directions

Several limitations should be noted. The modest sample size limits generalizability, and self-report measures also inherently introduce a degree of subjectivity. Participants' responses may reflect not only their actual emotional abilities but also their self-perceptions, which can be influenced by social desirability or limited insight. The EQ-i 2.0's embedded validity checks help to partially control for social desirability bias, scores were within acceptable limits. The study wide error in one such as this where multiple comparisons were made may also be a concern; to remedy this in future studies larger scale studies that support more complex analysis methods may be warranted. As such, while the gains observed in EI are encouraging, they should be interpreted with appropriate caution. There was no control group in the present study. Future studies would benefit from adding a control group and incorporating informant reports or objective performance-based assessments of EI and quality of life, as research has found multi-informant approaches to be a more comprehensive way of evaluating current functioning and identifying service needs in this population (Sandercock, 2020). Other tools that also examine ability-based emotional intelligence may also be a useful addition to gauge participants' ability to reason through emotionally based scenarios. In addition, our quality of life measure only asked two questions per domain of life that was measured – future studies may benefit from choosing a measure that allows for more nuanced understanding of quality of life in multiple domains.

Additionally, while follow-up data show promising trends, longer-term evaluations (e.g., 6- or 12-month follow-ups) are needed to fully assess the durability and real-world impact of the intervention. Based on the logic model, quality of life improvements may continue to accrue as participants deepen their use of emotional skills in daily life, however it is impossible to test this without gathering data over a longer term. Future studies should also explore whether these gains translate into concrete life outcomes such as stable employment, satisfying relationships, reduced anxiety, or greater independence. It may also be fruitful to investigate subgroup differences, including how outcomes vary by gender, age, or autistic trait profiles.

To keep the program consumer-driven and grounded in lived experience, future studies should also incorporate focus groups to gather participants' firsthand perspectives. This would provide rich qualitative data on how individuals experience and apply the program in their daily lives, helping to refine content and delivery to better meet participant needs. Additionally, data already collected from this cohort could be analyzed in a separate study to investigate more specific impacts on quality of life domains and happiness, as measured by the EQ-i 2.0 Well-Being Indicator. This may help clarify how emotional intelligence training influences not just functioning, but also perceived happiness and life satisfaction.

Conclusion

The Skills for Living program appears to be a theory-driven, effective intervention that addresses a critical service gap for autistic adults without intellectual disability. Findings from this evaluation support the logic model's proposed sequence of change: significant, immediate gains in emotional intelligence, followed by early, yet modest signs of improvement in quality of life. Similar to EI intervention research showing that EI can be improved in neurotypical individuals (Kotsou et al., 2011), these results suggest that emotional intelligence is a powerful

and malleable target for promoting well-being in autistic adults. Continued research and refinement of this intervention could help support long-term functional independence, social inclusion, and psychological resilience in this underserved population.

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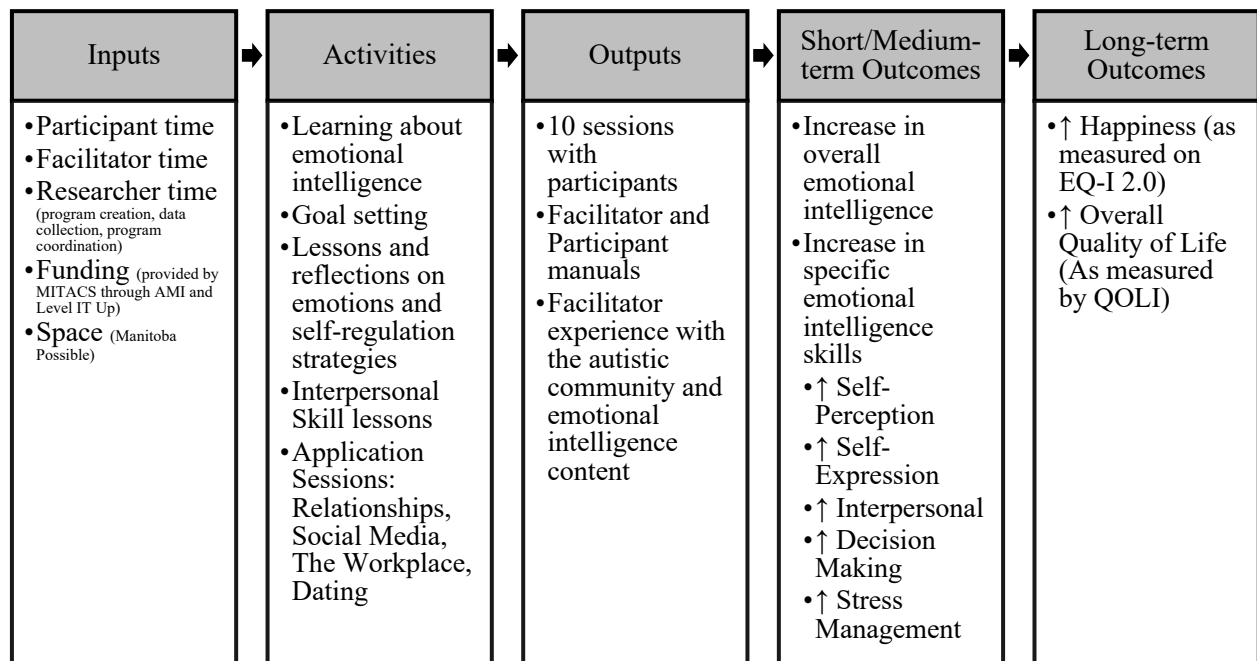
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Appendix A

Skills for Living: Program Logic Model

Appendix B

Skills for Living Table of Contents

1. Introductions, What is Emotional Intelligence
 - Intro to group/welcome members
 - Ice breaker activity – Autograph bingo
 - Group Code of Conduct –
 - i. explain group goals
 - ii. have participants brainstorm what makes an effective group
 - iii. Group Principles
 - Introduction to Emotional intelligence
 - Review and Challenge Activity
2. Emotional intelligence, self-awareness, Share EI results
 - Intro/Review challenge activity
 - Understanding your emotional intelligence scores
 - What to do when you get your reports
 - Activity: Try not listening
 - BALANCE lesson
 - Conversation starter handout (not reviewed in group)
 - Active Listening Practice and Discussion
 - Challenge of the week
3. Understanding and improving Emotional intelligence: goals
 - Intro/Review challenge activity (BALANCE)
 - Talk about Emotional Intelligence results (Strategies)
 - Pair up - picking Strategies (ideas in manual)
 - Smart goals
 - Challenge of the week
4. Emotions and self-regulation, happiness
 - Intro/Review challenge activity
 - Introduction to Emotions
 - Experiences with Emotions
 - Emotions are Not Bad or Good
 - Why We Have Emotions
 - Emotions are Temporary
 - Identifying Emotions and Emotional Situations
 - Self Esteem
 - Planning for Success
 - Managing emotions
 - Happiness and Joy
 - Challenge of the week

5. Managing difficult emotions (anger and meltdowns)
 - Intro/Review challenge activity
 - What is Anger? ABC model of emotional activation
 - Past Reactions with Anger
 - What makes us angry? Identifying Triggers to Your Anger
 - Ways to Deal with These Triggers
 - Better Ways to Deal with Your Anger
 - The Anger Zone: Expressing Your Anger “Appropriately”, Calming Yourself When Angry, Making Amends, and Reflecting
 - Challenge of the week
6. Relationships and social communication
 - Intro/Review challenge activity
 - Making Introductions
 - Continuing conversation - Social Cues
 - i. Introductions, then what?
 - ii. Do we continue the conversation?
 - iii. Welcoming vs. Unwelcoming Social Cues,
 - iv. body language clues, Proximity and Personal Space,
 - v. Being Sensitive to The Listeners Interests/Choosing What to Say)
 - Avoiding Touchy Subjects and Insults
 - Intent vs. Impact
 - Challenge of the week
7. Relationships and social communication, social media
 - Intro/Review challenge activity
 - What is a good friend?
 - Where to find friends
 - Don't try too hard too soon
 - Deepening friendships – sharing personal information
 - Dealing with social fears and new feared situations
 - Social Media
 - Challenge of the week
8. Workplace – Getting and Keeping a job
 - Intro/Review challenge activity
 - Choosing a career
 - Conducting a job search
 - Interview skills
 - Preparing for an interview
 - Nonverbal skills during the interview
 - After the interview is over
 - Responding to Criticism on the Job

- The Do's and Don'ts of Maintaining a Job
 - Activity: tense situations at work
 - Leaving a job
 - Challenge of the week
9. Dating
- Intro/Review challenge activity
 - Relationships and personal choice
 - Consent
 - Where to find a date and asking someone out on a date
 - Where to take someone on a date and dealing with fear of rejection
 - Getting to know someone: Reciprocity
 - Dating safety
 - Reading the signals
 - The Do's and Don'ts on a date
 - Challenge of the week
10. Putting it together: Final Session
- Skills for Living Jeopardy

Appendix C

Subscale means and item-level endorsement rates based on the original five-domain AQ model were as follows: Social Skill (M = 6.27 out of 10; 62.73%), Attention Switching (M = 8.09 out of 10; 80.91%), Attention to Detail (M = 6.64 out of 10; 66.36%), Communication (M = 7.18 out of 10; 71.82%), and Imagination (M = 4.27 out of 10; 42.73%). The highest subscale scores were observed in Attention Switching and Communication, reflecting core challenges frequently reported in autism, including difficulty with cognitive flexibility and pragmatic language use.

Appendix D

Post hoc power analyses were conducted to evaluate the sensitivity of the paired samples t-tests, using an alpha level of .05 (two-tailed). Analyses were completed in G*Power (Faul et al., 2007) based on the observed effect sizes and sample sizes. These calculations provide context for interpreting the likelihood of Type II error across comparisons. Descriptive results of the analyses, including sample size, Cohen's *d*, and achieved power, are presented below.

EI Total Score (N=10)		Cohen's d	Power
	Pre to Post	1.118	0.88
	Post to Follow-up	0.408	0.211

Emotional Intelligence Subscales (N=10)			Cohen's d	Power
	Self-Perception	Pre to Post	0.892	0.71
	Self-Expression	Pre to Post	0.725	0.53
	Interpersonal	Pre to Post	1.039	0.83
	Decision Making	Pre to Post	0.975	0.78
	Stress Management	Pre to Post	1.019	0.82

Overall Quality of Life (N=8)		Cohen's d	Power
	Pre to Post	0.07	0.05
	Post to Follow-up	0.25	0.09