

Effect of School-Based Virtual Program on Career Transition Self-Esteem of Nigerian Students With ADHD

Vera Victor-Aigbodion, University of Nigeria, Nsukka, Nigeria
Chiedu Eseadi, University of Johannesburg, South Africa

The Paris Conference on Education 2025
Official Conference Proceedings

Abstract

Students with Attention-Deficit/Hyperactivity Disorder (ADHD) are prone to poor career self-esteem. This research investigated the impact of a six-week virtual career intervention conducted in schools on the career transition self-esteem of Nigerian students with ADHD. Employing a quasi-experimental pretest-post-test design, 23 secondary school students with ADHD were divided into treatment and wait-list control groups. The intervention emphasized areas such as self-awareness, career exploration, and skill development. Data analysis was performed using Bayesian repeated measures ANOVA, which indicated notable enhancements in career transition self-esteem for the treatment group in comparison to the wait-list control group. The results underscore the significance of virtual career interventions in improving career transition self-esteem among Nigerian secondary school students with ADHD. This study also proposes avenues for future research to investigate the long-term effects of such interventions on the career transition experiences of students with ADHD.

Keywords: ADHD, career intervention, students, self-esteem, virtual intervention

iafor

The International Academic Forum
www.iafor.org

Background

Self-esteem encompasses an individual's general perception of their own worth or value, which can manifest as either a favourable or unfavourable orientation toward oneself (Cherry, 2023; Macasarte & Quines, 2024; Rosenberg et al., 1995). It is a psychological factor that influences various critical outcomes for young individuals; however, it often remains stagnant or may even decrease during the adolescent years (Hoffman & Schacter, 2024). Career transition self-esteem pertains to a person's sense of career self-worth and confidence when navigating changes or shifts in their professional life. Elevated levels of this self-esteem are linked to positive outcomes in the career development of individuals; those with strong self-esteem are more likely to proactively pursue career changes, remain optimistic about their potential for success, and demonstrate resilience in the face of setbacks (Ben Ayed & Vandenberghe, 2018; Cai et al., 2015; Macasarte & Quines, 2024; Thompson et al., 2019). For students, career transition represents a crucial phase that shapes their professional, socioeconomic, and personal development (Eseadi & Diale, 2023; Onyishi, 2024). However, this phase can be particularly challenging for those diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD), a behavioural condition characterized by persistent patterns of inattention, hyperactivity, and impulsivity that significantly impact a person's daily functioning and overall development (Ercan, 2020; Kazdin & Association, 2000).

The worldwide incidence of ADHD in children and adolescents is estimated to be between 5.6% and 7.6% (Salari et al., 2023). In adults, the cumulative occurrence of ADHD is approximately 3.10% (Ayano et al., 2023). These rates can differ significantly across various regions. For example, in the Arab world, the prevalence among school-aged children ranges from 2.7% to 20.5% (Al-Fatlawi & Al-Dujaili, 2019). In India, the prevalence is reported to be between 2% and 17% (Joshi & Angolkar, 2021). In Nigeria, ADHD prevalence in school-aged children was shown to be between 3.2% to 7.6% (Ambuabunos et al., 2011; Chinawa et al., 2014). ADHD is more commonly diagnosed in males compared to females, exhibiting a male-to-female ratio of 4:1 in childhood (Al-Fatlawi & Al-Dujaili, 2019); however, this ratio tends to decrease in adulthood (Davidovitch et al., 2017). The variability in prevalence rates is often linked to differences in research methodologies, diagnostic criteria, cultural influences (Álvarez et al., 2015) and geographical location (Polanczyk et al., 2007). The symptoms of ADHD, which often persist into adulthood, influence multiple domains of functioning, including academic, social, and occupational outcomes (Ahlberg et al., 2023; DuPaul et al., 2014; Ercan, 2020; Sinnari et al., 2018; Stark et al., 2024). Students with ADHD face unique barriers during the career transition due to persistent difficulties with executive functioning skills, which are crucial for managing time, organizing tasks, and regulating behaviour (Coetzer & Gibbison, 2016; Gordon & Fabiano, 2019; Henning et al., 2022; Sansosti et al., 2017). These deficits can make it particularly difficult for them to meet the demands of traditional work environments, where sustained attention, task prioritization, and social navigation are essential.

Students with ADHD tend to face greater challenges in academic performance, often resulting in lower grades and increased dropout rates when compared to their peers without ADHD (Alloway et al., 2010; Bernalles & Aranedá, 2021; Canu et al., 2021; Fredriksen et al., 2014). These academic struggles often extend into the workplace, where individuals with ADHD face higher rates of job instability, underemployment, and difficulties in maintaining steady employment (Ahlberg et al., 2023; Gordon & Fabiano, 2019). Challenges associated with ADHD, such as disorganization and impulsivity, can lead to conflicts with supervisors and colleagues, further complicating their employment outcomes (Bjerrum et al., 2017;

Fuermaier et al., 2021). Individuals with ADHD exhibit a diminished self-esteem profile more often than their healthy peers, highlighting the importance of early recognition of psychological well-being in this population to alleviate the consequences associated with ADHD symptoms (Mazzone et al., 2013). Richelieu (2024) reported that the presence of ADHD symptoms is a considerable predictor of an individual's self-esteem. Okumura et al. revealed that the existence of undiagnosed symptoms of ADHD had a detrimental effect on individuals' psychosocial functioning, which included a reduction in self-esteem (Okumura et al., 2021). Cook et al. (2014) also revealed a correlation between symptoms of ADHD and diminished self-esteem in individuals. They further found that concerns associated with self-esteem can be alleviated to a certain degree through psychotherapeutic interventions. In high-resource settings, there are interventions designed to improve self-esteem among students with ADHD during career transitions (LaCount et al., 2019; Shaikh, 2018). However, in low-resource contexts like Nigeria, such interventions are often unavailable, and students with ADHD face additional cultural, societal, and systemic barriers (Ndukuba et al., 2017; Robertson, 2021; Song, 2024) that hinder their ability to transition successfully from school to the workforce.

Within Nigerian schools and society generally, ADHD is often poorly understood (Jimoh, 2014; Ojionuka, 2016; Omozusi & Obebe, 2024). Students exhibiting symptoms of inattention or hyperactivity are frequently mislabeled as lazy, unmotivated, or disruptive (Drinks, 2024; The Summit Academy Schools, 2023). This misconception and stigma affect how they are perceived by peers, educators and prospective employers and influence their self-perception, contributing to their low self-esteem in diverse contexts. Furthermore, the Nigerian educational system is inadequately equipped to support students with ADHD as a result of limited knowledge of the teachers about ADHD, insufficient teacher training, and a lack of specialized school-based interventions (Ibukun et al., 2015; Mandah & Osuagwu, 2020; Ojionuka, 2016). Career programs, where available, typically employ a traditional model that fails to holistically meet the transition needs of these students (Idowu et al., 2020; Issa & Nwalo, 2008). Consequently, students with ADHD are often left to navigate the transition to employment with minimal assistance, leading to suboptimal outcomes. Early career intervention and support are critical for improving the career transition trajectories of this population, yet such support in Nigeria is sparse (Edunetix, 2023), leaving many individuals with ADHD facing significant barriers in their pursuit of stable and fulfilling careers.

Self-esteem plays a vital role in career transition, particularly for those with ADHD, who may struggle with feelings of inadequacy due to past academic and social concerns (Eccleston et al., 2019; Holthe & Langvik, 2017; Levkovich & Elyoseph, 2021; Patton, 2024). Low self-esteem has been associated with decreased motivation, limited job performance, and higher rates of job turnover among individuals (Gabriel, 2022; Kline, 2023; Macasarte & Quines, 2024; Nadeau, 2005; University of Washington, 2002). Conversely, interventions that boost self-esteem can lead to improved outcomes by fostering resilience and enhancing individuals' ability to cope with workplace demands (Kuster et al., 2013; Pierce & Gardner, 2004; Riopel, 2020). Despite the recognized impact of self-esteem during students' career transition (Ali et al., 2024; Bin, 2015; Foley-Nicpon et al., 2012), evidence-based interventions focused on boosting career transition self-esteem among Nigerian students with ADHD are lacking. This gap highlights the need for innovative interventions that provide supportive and accessible resources to help these students build confidence and prepare for the workforce. Virtual career interventions, which utilize technology to deliver flexible and engaging career guidance, represent a promising approach in this context.

Virtual career interventions have emerged as an innovative approach towards bridging the gaps in traditional career counselling, especially where in-person resources are limited or inaccessible (Epueme, 2024). These interventions leverage digital platforms to deliver personalized support, offering students the opportunity to explore career options, develop job-related skills, and receive guidance from career counsellors without the constraints of geographical location or physical infrastructure (Ardi et al., 2022). When it comes to supporting students with ADHD, virtual interventions can be particularly beneficial, as they allow for tailored content delivery that accommodates individual learning styles, attention spans, and needs (Grinblat & Rosenblum, 2023; Oddo et al., 2021). Career interventions can help students develop essential skills such as time management, goal setting, and job search strategies, which are critical for successful transitions to employment (Akkermans et al., 2015; Soares et al., 2022; Vasko et al., 2020; Whiston & Blustein, 2013; Yuen et al., 2022). However, the evidence for the efficacy of such interventions in the Nigerian context remains limited. Implementing virtual career interventions in Nigeria requires careful consideration of cultural, economic, and systemic factors that uniquely shape the experiences of students with ADHD. Cultural stigmas surrounding neurodevelopmental disorders, limited access to technology, knowledge and attitudes, and varying levels of digital literacy are challenges that must be addressed to ensure the success of such interventions (Ardi et al., 2022; Lasisi et al., 2017; Olatunji et al., 2023). Moreover, the design of virtual career intervention programs must be sensitive to the career transition needs of Nigerian students with ADHD, incorporating culturally relevant content and accessible formats that resonate with them.

In the context of ADHD, culturally appropriate virtual career interventions can play a significant role in normalizing the condition, reducing stigma, and empowering students to take charge of their career transitions (Diale, 2022; Woodley, 2023). These interventions have the potential to provide much-needed support to Nigerian students with ADHD, helping them overcome barriers and achieve their career transition goals by integrating culturally informed strategies and leveraging the strengths of digital platforms. Despite the potential of virtual career interventions, there is a significant gap in research examining their impact on Nigerian students with ADHD. Not much is known about how these interventions can be adapted and implemented in Nigeria, where cultural, economic, and infrastructural challenges may influence their effectiveness (Ardi et al., 2022; Epueme, 2024). This study seeks to fill this lacuna by evaluating the effect of a school-based virtual career intervention on the career transition self-esteem of Nigerian secondary school students with ADHD. The findings will contribute to the limited body of research on ADHD in Nigeria and offer insights into how virtual career interventions can be leveraged to support neurodivergent student populations like those with ADHD during career transition.

Problem Statement

Individuals with ADHD face a 30% increased likelihood of experiencing persistent employment challenges, a 60% higher chance of being terminated from their positions, and are three times more prone to resign from a job without prior consideration (Barkley et al., 2008). Brattberg (2006) observed that a minimum of 24% of individuals on extended sick leave as a result of stress-associated conditions satisfied the criteria for ADHD. Despite the critical role of self-esteem in shaping career outcomes, there is a lacuna in research examining interventions to bolster self-esteem among Nigerian students with ADHD during career transition. While virtual career interventions have shown promise in other contexts, such as the United States (LaCount et al., 2019), their application and impact in Nigeria remain underexplored, leaving educators, parents, employers, and policymakers without

evidence-based strategies to support this vulnerable population. The current study addresses this concern by investigating the effect of a school-based virtual career intervention on the career transition self-esteem of Nigerian secondary school students with ADHD.

Theoretical Framework

In line with self-esteem theory, the way people evaluate themselves significantly influences their psychological functioning and general well-being (Rosenberg, 1989). This is remarkably true for students with ADHD, who often encounter both academic and social challenges, which can negatively affect their self-esteem during career transition. Self-esteem develops through personal experiences and interactions, especially during the formative stages of childhood and adolescence (Rosenberg et al., 1995). Just as self-esteem in general is influenced by personal interactions and feedback, career transition self-esteem is shaped by professional experiences, relationships, and successes or challenges encountered during career transition. For individuals with ADHD embarking on career transition—whether by choice or circumstance—their self-esteem can be crucial to their psychological well-being and success in adapting to new professional roles and contexts. Low career transition self-esteem may lead to feelings of inadequacy, anxiety and hesitancy in pursuing new opportunities, while higher career transition self-esteem may foster resilience, adaptability, and proactive engagement with new professional challenges. Furthermore, interventions that aim to build relevant career skills and offer career guidance support to students with ADHD can help improve their career transition self-esteem, facilitating a smoother and more successful career transition. This theoretical lens, therefore, underscores the significance of creating interventions that not only equip students with critical skills but also actively work to reshape their self-perceptions and build resilience in the face of challenges during career transition.

Hypothesis

1. Students in the treatment group will demonstrate similar career transition self-esteem with the wait-list control group at the pretest-test (Time 1), as measured by the Career Transition Self-Esteem Scale.
2. Students in the treatment group will show a significant increase in career transition self-esteem compared to the wait-list control group at the post-test (Time 2), as measured by the Career Transition Self-Esteem Scale.
3. The effect of the intervention on self-esteem will be significantly greater in the treatment group than in the wait-list control group at follow-up (Time 3), as assessed by the Career Transition Self-Esteem Scale.

Methodology

Research Design and Ethics

The study employed a quasi-experimental pretest-posttest design (Reichardt, 2009) to evaluate the impact of a virtual career intervention on the career transition self-esteem of Nigerian students with ADHD. This design allowed for the comparison of career transition self-esteem before and after the intervention, as well as between the treatment and control groups. The research project received ethical approval (REC/FE/2024/00027). Participants provided informed assent, while parental consent and school approval were obtained before assessing the students for eligibility and inclusion in the study.

Study Area

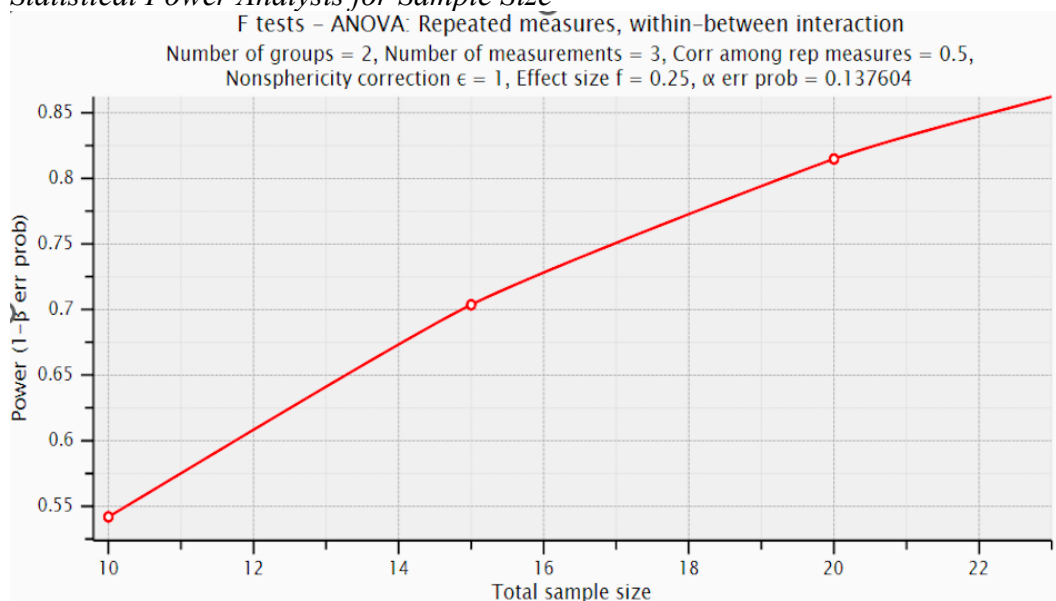
The study area was Southeast Nigeria. Southeast Nigeria is a geopolitical region that includes five states: Abia, Anambra, Ebonyi, Enugu, and Imo (Chukwu, 2008). This area is primarily populated by the Igbo ethnic group and is recognized for its strong entrepreneurial culture. It is bordered by the River Niger to the west and faces various challenges, including erosion, flooding, and security concerns, which affect its socioeconomic progress (Madubueze et al., 2024; Mohammed, 2024).

Participants

The participants comprised 23 secondary school students aged 14-16 (Mean age = 15.22 ± 1.08 years), diagnosed with ADHD by clinicians, from four urban inclusive schools in Southeast Nigeria. In a study by Shaikh (2018), students referred by clinicians showed more ADHD symptoms and reduced self-esteem compared to non-referred students. In the current study, students with ADHD were randomly allocated to either the treatment group ($n = 12$) or the wait-list control group ($n = 11$). Out of the sample, there were nine female students (39.1%) and fourteen male students (60.9%). Student inclusion criteria included a formal diagnosis of ADHD, willingness to participate in virtual sessions, and parental consent. Schools were chosen based on computer technology accessibility and willingness to participate in a virtual program. Figure 1, based on Gpower analysis (Faul et al., 2007), shows that the sample size was sufficient for this study.

Figure 1

Statistical Power Analysis for Sample Size



Intervention

The six-week intervention included weekly virtual counselling sessions. The sessions were conducted by the counsellors via Google Meet with additional in-school support from two class teachers in each school selected for the study. Students participated in each session, gathering as a group in the school's secured classroom space with laptop computers, a microphone, a video camera, a projector and a Screen, which enabled them to communicate with the counsellors delivering the intervention. The career intervention aimed to assist

students with ADHD build their self-esteem and prepare for successful career transitions through an engaging virtual platform. The wait-list control group engaged in weekly virtual interaction sessions addressing general education concerns over the same period. Table 1 is a week-by-week plan outlining objectives, activities, and counselling techniques for the treatment group intervention.

Table 1

Intervention Plan

Week	Objective	Activities	Counselling Techniques
1	Orientation and Self-Awareness	-Welcome session introducing students to the program. -Understanding ADHD and its impact on career. -Activities to help students identify their strengths and interests.	-Motivational interviewing to boost engagement and set positive expectations. -Strengths-based counselling to help students recognize their unique talents.
2	Discovering Career Paths	-Guided self-assessments to explore skills and interests. -Virtual tours of different career fields. -Discussing careers that align with their identified skills.	-Person-centred counselling to explore individual career interests and values. -Matching skills with potential careers.
3	Communication and Social Skills in the Workplace	-Workshops on effective communication and social skills. -Role-play of job interviews and workplace scenarios. -Peer feedback sessions to practice constructive communication.	-Social skills training. -Feedback-focused sessions to improve skills. -Group coaching to foster peer learning and support.
4	Creating Resumes and Understanding Job Applications	-Resume-building workshops with tailored support for ADHD students. -Step-by-step guide to job applications. -Review sessions to provide constructive feedback on resumes.	-Practical skills coaching with a focus on individualized resume development. -Solution-focused techniques to refine resumes and boost self-confidence.
5	Networking and Interviewing	-Mock interviews with professionals for real-time practice. -Networking with industry experts virtually. -Tips on creating LinkedIn profiles and engaging with professionals.	-Role-playing interviews to reduce anxiety. -Networking coaching to build professional connections. -Career coaching to navigate online networking platforms.
6	Reflecting on Growth and Setting Future Goals	-Reflection on skills learned and experiences gained. -Goal-setting for the next steps in the career journey. -Collecting feedback to refine the program for future use.	-Reflective counselling to help students acknowledge growth and plan ahead. -Feedback sessions to gather insights for continuous improvement.

Data Collection

Data collection was by means of the Career Transition Self-Esteem Scale (CTSES), a validated instrument designed by the researcher to measure self-esteem related to career transitions among secondary school students. The items are constructed on a four-point scale (1, Strongly Disagree, SD to 4, Strongly Agree, SA), with higher scores indicating stronger self-esteem and confidence in managing career transitions. Negatively worded items in the CTSES are reverse-scored. The CTSES was administered to both groups before the intervention (pretest) and after the intervention (posttest, week 6) and follow-up (Week 16). The internal consistency reliability of the CTSES was 0.75, as measured by Cronbach's alpha. Table 2 shows the items of the CTSES.

Table 2

The Career Transition Self-Esteem Scale

No.	Statement	SD	D	A	SA
1	I am uncertain about making a career transition.				
2	I believe I can overcome challenges during my career transition.				
3	I have the skills needed to succeed in a new career.				
4	I trust my ability to adapt to new career environments.				
5	I am confident that I can learn new things required for a new career.				
6	I feel positive about my ability to plan for a career transition.				
7	I believe I can handle uncertainty in a new career.				
8	I feel unprepared to seek out resources to assist me in transitioning careers.				
9	I am confident in my ability to network with professionals in a new career.				
10	I believe I can cope with the stress of a career change.				
11	I am pessimistic about finding a job in a new career field.				
12	I have confidence in my decision-making when it comes to career choices.				
13	I am comfortable with taking calculated risks in my career transition.				
14	I believe in my capacity to adjust to new responsibilities in a new career.				
15	I am uncertain about my ability to present myself well in interviews for new career opportunities.				

Data Analysis

Data were analyzed using Bayesian repeated measures ANOVA (Nathoo & Masson, 2016; Van Den Bergh et al., 2023) to assess changes in self-esteem scores across time points (pre-test, post-test, and follow-up) and between groups (treatment vs. control). The statistical analysis was conducted using Jeffreys's Amazing Statistics Program (JASP, version. 0.19.1) (JASP Team, 2024).

Results

Table 3

Descriptive Statistics for the CTSES Across Groups and Time

RM Factor 1	Group	N	Mean	SD	SE	Coefficient of Variation	95% CI Lower	Upper
Time 1	Treatment	12	38.75	2.77	0.79	0.07	36.99	40.51
	Control	11	31.00	0.00	0.00	0.00	31.00	31.00
Time 2	Treatment	12	46.00	2.05	0.59	0.04	44.70	47.29
	Control	11	38.82	4.51	1.36	0.12	35.79	41.85
Time 3	Treatment	12	46.00	5.21	1.50	0.11	42.69	49.31
	Control	11	35.46	6.83	2.06	0.19	30.87	40.04

The results of this study clearly demonstrate the significant impact of the virtual career intervention on improving the career transition self-esteem of Nigerian students with ADHD. As presented in Table 3, baseline (Time 1) self-esteem levels in the treatment group were moderate, with a mean score of 38.75, while the control group had a lower mean score of 31.00. Following the six-week intervention (Time 2), the treatment group showed a marked increase in self-esteem, reaching a mean score of 46.00, whereas the control group exhibited a smaller increase, with a mean score of 38.82. At follow-up (Time 3), the treatment group maintained their higher self-esteem levels (mean = 46.00), while the control group experienced a slight decline to 35.45, indicating the lasting effects of the intervention for the treatment group.

Table 4

Repeated Measures ANOVA for the Model Comparisons

Models	P(M)	P(M data)	BF _M	BF ₁₀	Error %
RM Factor 1 + Group	0.050	0.373	11.282	1.000	
RM Factor 1 + Group + RM Factor 1 * Group	0.050	0.155	3.479	0.415	1.774
RM Factor 1 + Group + Gender	0.050	0.134	2.947	0.360	2.251
RM Factor 1 + Group + Age	0.050	0.124	2.700	0.334	3.657
RM Factor 1 + Group + Age + Gender	0.050	0.073	1.505	0.197	7.286
RM Factor 1 + Group + Gender + RM Factor 1 * Group	0.050	0.058	1.176	0.156	3.794
RM Factor 1 + Group + Age + RM Factor 1 * Group	0.050	0.050	1.008	0.135	2.140
RM Factor 1 + Group + Age + Gender + RM Factor 1 * Group	0.050	0.032	0.626	0.086	8.262
RM Factor 1	0.050	6.059×10^{-6}	1.151×10^{-4}	1.626×10^{-5}	1.547
RM Factor 1 + Age	0.050	4.468×10^{-6}	8.489×10^{-5}	1.199×10^{-5}	1.907

The results of the Repeated Measures ANOVA in Table 4 showed that both time and group membership significantly influenced changes in career transition self-esteem. The model "RM Factor 1 + Group" provided the best fit for the data, highlighting the substantial impact of the intervention.

Table 5

Analysis of Effects of Interventions Across Group

Effects	P(incl)	P(excl)	P(incl data)	P(excl data)	BF _{incl}
RM Factor 1	0.600	0.400	1.000	1.475×10^{-6}	451933.256
Group	0.600	0.400	1.000	1.558×10^{-5}	42783.294
RM Factor 1 *	0.200	0.800	0.295	0.705	1.676
Group					
Age	0.500	0.500	0.280	0.720	0.389
Gender	0.500	0.500	0.298	0.702	0.424

Bayesian analysis in Table 5 further confirmed this effect, with an exceptionally high Bayes Factor ($BF_{10} > 1,000,000$), indicating strong evidence that the treatment group benefitted considerably more than the wait-list control group.

Table 6

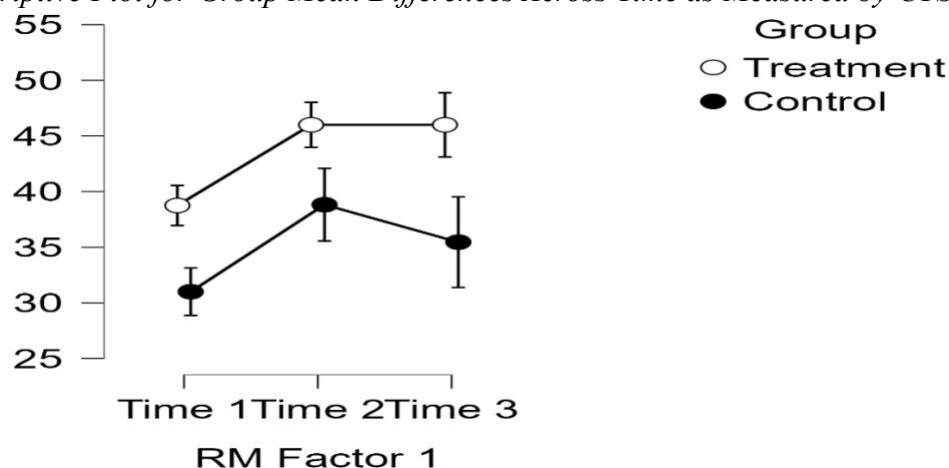
Post-hoc Comparisons - Group

		Prior Odds	Posterior Odds	BF _{10, U}	error %
Treatment	Control	1.000	$1.678 \times 10^{+6}$	$1.678 \times 10^{+6}$	2.123×10^{-12}

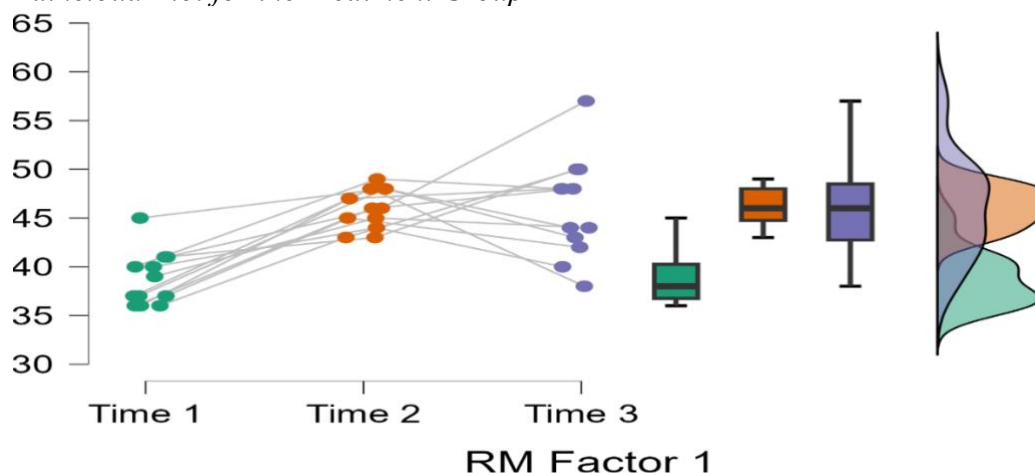
The post hoc comparisons in Table 6 underscored this finding, showing that the treatment group's self-esteem scores post-intervention were significantly higher than those of the wait-list control group.

Figure 2

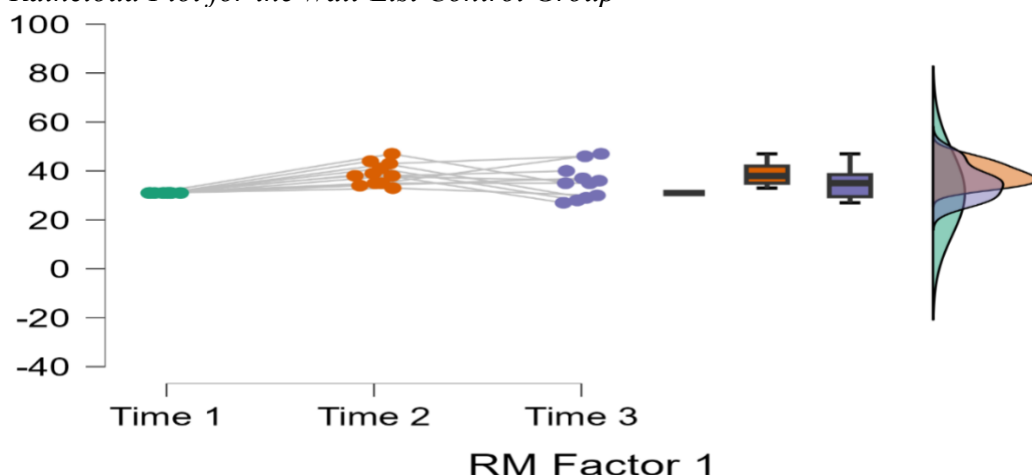
Descriptive Plot for Group Mean Differences Across Time as Measured by CTSES



The descriptive plot in Figure 2 reveals a clear and sustained improvement in the self-esteem of the treatment group from Time 1 to Time 2, which was maintained at follow-up. In contrast, the control group showed a modest increase after the same period, followed by a decline at Time 3. These patterns reinforce the long-term benefits of the virtual career intervention.

Figure 3*Raincloud Plot for the Treatment Group*

A more granular view of the treatment group's progress is offered by the raincloud plot in Figure 3, which shows that most students in the treatment group experienced a consistent and substantial increase in self-esteem after the intervention. In contrast, Figure 4 shows the raincloud plot for the wait-list control group, where self-esteem scores were more variable and exhibited minimal improvement, further highlighting the relative ineffectiveness of the control condition.

Figure 4*Raincloud Plot for the Wait-List Control Group*

Discussion

The study indicates that the virtual career intervention was efficacious in significantly boosting the career transition self-esteem of students with ADHD. The treatment group showed meaningful and sustained improvements, while the control group experienced only minimal changes. The findings align with previous research suggesting that targeted career interventions can significantly improve career transition outcomes among students with ADHD (Ohabim, 2016). Drawing from Rosenberg's self-esteem theory (Rosenberg, 1989; Rosenberg et al., 1995), the observed improvement in career transition self-esteem among the treatment group implies that career transition self-esteem was determined by students' evaluations of their own capabilities, experiences, and values during career transition. The

structured and supportive nature of the intervention provided students with ADHD the opportunity to build relevant career transition skills, receive immediate feedback, and recognise their strengths, thereby boosting their career transition self-esteem. According to LaCount et al. (2019), specific treatment methods, including group-based strategies, can be especially effective for adolescents with ADHD during their transition. This is in consonance with the current study's intervention, which adopted a group-based approach that was shown to be efficacious in boosting the self-esteem of students with ADHD during career transition. Hoffman and Schacter (2024) also remarked that it is imperative to explore therapeutic approaches that encourage more favourable self-esteem among students, as this is vital for enhancing their general quality of life. In addition, virtual career interventions are generally more economical and easier to deploy on a larger scale compared to traditional in-person career guidance programs years (Epueme, 2024).

According to Perry et al. (2021), it is important for school-based ADHD intervention programs to focus on outcomes such as self-esteem, which are particularly important for students who are likely to gain from such programs. Henriksen et al. (2017) and Rasmussen et al. (2022) emphasized that, from a resilience standpoint, students with ADHD have the potential to build positive self-esteem via transformative experiences bolstered by protective mechanisms. These mechanisms play a vital role in nurturing their self-esteem during career transition. Therefore, the current study's results underscore the importance of accessible and early career interventions that are tailored to meet the career transition self-esteem needs of students with ADHD. In view of the scarcity of such intervention programs in Nigerian schools, virtual career interventions represent a viable and scalable option to support this underserved population. The results are particularly relevant for the Nigerian context, where most students with ADHD often lack access to tailored career guidance. These findings also highlight the potential of virtual career interventions to support students with ADHD in career transitions in other settings where in-person resources are limited or inaccessible. The study also indicates the need for sustained support, as the long-term impact of such interventions on several career transition outcomes remains unexplored among students with ADHD. Schools, policymakers, and career counsellors should consider integrating such programs into existing educational and vocational support structures to enhance the career transition readiness of students with ADHD. Bjerrum et al. (2017) indicated that policymakers can initiate campaigns aimed at employers, providing them with insights into the skills that individuals with ADHD possess and the advantages these skills can bring when work tasks are appropriately structured.

This study has several limitations. First, the small sample size and focus on students from urban schools in Southeast Nigeria limit the generalizability of the study findings to all Nigerian students with ADHD, particularly those in rural secondary schools and other regions of the country. Second, the reliance on a self-report measure may introduce response bias. The short duration of the intervention did not allow for the assessment of long-term impacts on the career transition self-esteem of the students. Future research should explore the long-term efficacy of virtual career interventions on the career transition self-esteem of students with ADHD. Increasing the scope of future research to involve a larger and more heterogeneous sample of neurodivergent students while also employing mixed methods designs could enhance the understanding of the intervention's efficacy. Rasmussen et al. (2022) suggested that school professionals working with students with ADHD should prioritize their strengths in addition to addressing their challenges when offering support to them. Braude and Dwarika (2020) advocate for a collaborative consultation approach aimed at fostering the implementation of evidence-based programs in schools for supporting

students with ADHD during career transition. Overall, future research examining specific components of the intervention that drive improvements in career transition self-esteem of students with ADHD could inform the design of more targeted and impactful programs in the future.

Conclusion

This study provides evidence that a structured, school-based virtual career intervention can significantly improve the career transition self-esteem of Nigerian secondary school students with ADHD. To this end, leveraging technology to deliver accessible virtual interventions can offer a promising solution to address the career transition concerns of students with ADHD. Expanding access to such interventions has the potential to improve the career transition readiness and career transition self-esteem of secondary school students with ADHD.

References

- Ahlberg, R., Du Rietz, E., Ahnemark, E., Andersson, L. M., Werner-Kiechle, T., Lichtenstein, P., Larsson, H., & Garcia-Argibay, M. (2023). Real-life instability in ADHD from young to middle adulthood: A nationwide register-based study of social and occupational problems. *BMC Psychiatry*, 23(1). <https://doi.org/10.1186/s12888-023-04713-z>
- Akkermans, J., Brenninkmeijer, V., Schaufeli, W. B., & Blonk, R. W. B. (2015). It's All About CareerSKILLS: Effectiveness of a Career Development Intervention for Young Employees. *Human Resource Management*, 54(4), 533–551. <https://doi.org/10.1002/hrm.21633>
- Al-Fatlawi, D. A. H., & Al-Dujaili, A. H. (2019). Assessment of attention deficit hyperactivity disorders among primary school children in AL-Najaf city. *Indian Journal of Public Health Research and Development*, 10(1), 1048–1052. <https://doi.org/10.5958/0976-5506.2019.00199.2>
- Ali, A., Collier, K., & Mayomi, T. (2024). Navigating ADHD in Higher Education: Evaluating Psychosocial Interventions for Student Self-Esteem, Well-Being, and Quality of Life. *BJPsych Open*, 10(S1), S17–S18.
- Alloway, T. P., Gathercole, S. E., & Elliott, J. (2010). Examining the link between working memory behaviour and academic attainment in children with ADHD. *Developmental Medicine and Child Neurology*, 52(7), 632–636. <https://doi.org/10.1111/j.1469-8749.2009.03603.x>
- Álvarez, J. C. P., Moya, L. R., & Rada, F. M. (2015). Prevalence of attention-deficit/hyperactivity disorder. In *Attention Deficit Hyperactivity Disorder (ADHD): Epidemiology, Treatment and Prevention* (pp. 21–29). Nova Science Publishers Inc.
- Ambuabunos, E. A., Ofovwe, E. G., & Ibadin, M. O. (2011). Community survey of attention-deficit/hyperactivity disorder among primary school pupils in Benin City, Nigeria. *Annals of African Medicine*, 10(2), 91–96. <https://doi.org/10.4103/1596-3519.82065>
- Ardi, Z., Eseadi, C., & Guspriadi, Y. (2022). A Web-Based Career Counseling Intervention for Enhancing Career Decision-Making among Prospective Polytechnic Students. *Res Militaris*, 12(2), 682–689.
- Ayano, G., Tsegay, L., Gizachew, Y., Necho, M., Yohannes, K., Abraha, M., Demelash, S., Anbesaw, T., & Alati, R. (2023). Prevalence of attention deficit hyperactivity disorder in adults: Umbrella review of evidence generated across the globe. *Psychiatry Research*, 328, 115449. <https://doi.org/10.1016/j.psychres.2023.115449>
- Barkley, R. A., Murphy, K. R., & Fischer, M. (2008). *ADHD in adults: What the science says*. Guilford Press.
- Ben Ayed, A. K., & Vandenberghe, C. (2018). Job engagement, organization-based self-esteem, and career satisfaction: A prospective study. *Psychologie Du Travail et Des Organisations*, 24(2), 203–218. <https://doi.org/10.1016/j.pto.2018.03.002>

- Bernales, V. J. S., & Araneda, V. F. E. (2021). Academic performance in higher education students with Attention Deficit Disorder. *Estudios Pedagogicos*, 47(1), 91–108. <https://doi.org/10.4067/S0718-07052021000100091>
- Bin, S.-O. (2015). Relationship of ADHD Disposition to Self-esteem in College Students. *The Journal of Korean Society for School & Community Health Education*, 16(3), 1–15.
- Bjerrum, M. B., Pedersen, P. U., & Larsen, P. (2017). Living with symptoms of attention deficit hyperactivity disorder in adulthood: A systematic review of qualitative evidence. *JBIS Database of Systematic Reviews and Implementation Reports*, 15(4), 1080–1153. <https://doi.org/10.11124/JBISRIR-2017-003357>
- Brattberg, G. (2006). PTSD and ADHD: Underlying factors in many cases of burnout. *Stress and Health*, 22(5), 305–313. <https://doi.org/10.1002/smi.1112>
- Braude, S., & Dwarika, V. (2020). Teachers' experiences of supporting learners with attention-deficit hyperactivity disorder: Lessons for professional development of teachers. *South African Journal of Childhood Education*, 10(1), 1–10.
- Cai, Z., Guan, Y., Li, H., Shi, W., Guo, K., Liu, Y., Li, Q., Han, X., Jiang, P., Fang, Z., & Hua, H. (2015). Self-esteem and proactive personality as predictors of future work self and career adaptability: An examination of mediating and moderating processes. *Journal of Vocational Behavior*, 86, 86–94. <https://doi.org/10.1016/j.jvb.2014.10.004>
- Canu, W. H., Stevens, A. E., Ranson, L., Lefler, E. K., LaCount, P., Serrano, J. W., Willcutt, E., & Hartung, C. M. (2021). College Readiness: Differences Between First-Year Undergraduates With and Without ADHD. *Journal of Learning Disabilities*, 54(6), 403–411. <https://doi.org/10.1177/0022219420972693>
- Cherry, K. (2023, December 5). *What Is Self-Esteem? Your Sense of Your Personal Worth or Value* [Online post]. Verywellmind. <https://www.verywellmind.com/what-is-self-esteem-2795868>
- Chinawa, J. M., Odetunde, O. I., Obu, H. A., Chinawa, A. T., Bakare, M. O., & Ujunwa, F. A. (2014). Attention Deficit Hyperactivity Disorder: A Neglected Issue in the Developing World. *Behavioural Neurology*, 2014, 694764. <https://doi.org/10.1155/2014/694764>
- Chukwu, P.O. (2008). *Willingness to pay for rural telephone services: implications for agricultural technology transfer and poverty reduction in Southeast Nigeria*. (Undergraduate Dissertation, University of Uyo, Akwa Ibom State, Nigeria).
- Coetzer, G., & Gibbison, G. (2016). Mediating influence of time management on the relationship between adult attention deficit and the operational effectiveness of project managers. *Journal of Management Development*, 35(8), 970–984. <https://doi.org/10.1108/JMD-06-2015-0090>
- Davidovitch, M., Koren, G., Fund, N., Shrem, M., & Porath, A. (2017). Challenges in defining the rates of ADHD diagnosis and treatment: Trends over the last decade. *BMC Pediatrics*, 17(1). <https://doi.org/10.1186/s12887-017-0971-0>

- Diale, B. M. (2022). Digital Tools Used by Teachers for Assessing Learners with Attention-Deficit/Hyperactivity Disorder (ADHD): Implications for Career Transitioning. *International Journal of Health Sciences*, 6(S7), 6819–6832. <https://dx.doi.org/10.53730/ijhs.v6nS7.13673>
- Drinks, T. (2024). ADHD and the myth of laziness. *Understood for All, Inc.* <https://www.understood.org/en/articles/adhd-and-the-myth-of-laziness-what-you-need-to-know>
- DuPaul, G. J., Reid, R., Anastopoulos, A. D., & Power, T. J. (2014). Assessing ADHD symptomatic behaviors and functional impairment in school settings: Impact of student and teacher characteristics. *School Psychology Quarterly*, 29(4), 409.
- Eccleston, L., Williams, J., Knowles, S., & Soulsby, L. (2019). Adolescent experiences of living with a diagnosis of ADHD: A systematic review and thematic synthesis. *Emotional and Behavioural Difficulties*, 24(2), 119–135. <https://doi.org/10.1080/13632752.2019.1582762>
- Edunetix. (2023, December 18). Government Collaboration: The Backbone of Scalable Career Guidance Initiatives in Emerging Economies. *Edunetix Blog*. <https://edunetix.co/government-collaboration-the-backbone-of-scalable-career-guidance-initiatives-in-emerging-economies/>
- Epueme, E. (2024, March 23). Empowering Nigerian students to explore future careers. *Teach For All*. <https://teachforall.org/blog/empowering-nigerian-students-explore-future-careers>
- Ercan, E. U. (2020). Social, academic and emotional impairment in children with ADHD. In *Understanding Children with Attention Deficit Hyperactivity Disorder (ADHD)* (pp. 217–233). Nova Science Publishers, Inc.
- Eseadi, C., & Diale, B. M. (2023). Perspective on career transition of students with visual impairments. *Journal of Research and Health*, 13(4), 241–246.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Foley-Nicpon, M., Rickels, H., Assouline, S. G., & Richards, A. (2012). Self-Esteem and Self-Concept Examination Among Gifted Students With ADHD. *Journal for the Education of the Gifted*, 35(3), 220–240. <https://doi.org/10.1177/0162353212451735>
- Fredriksen, M., Dahl, A. A., Martinsen, E. W., Klungsoyr, O., Faraone, S. V., & Peleikis, D. E. (2014). Childhood and persistent ADHD symptoms associated with educational failure and long-term occupational disability in adult ADHD. *ADHD Attention Deficit and Hyperactivity Disorders*, 6(2), 87–99. <https://doi.org/10.1007/s12402-014-0126-1>

- Fuermaier, A. B. M., Tucha, L., Butzbach, M., Weisbrod, M., Aschenbrenner, S., & Tucha, O. (2021). ADHD at the workplace: ADHD symptoms, diagnostic status, and work-related functioning. *Journal of Neural Transmission*, 128(7), 1021–1031. <https://doi.org/10.1007/s00702-021-02309-z>
- Gabriel, A. (2022). Examining the Psychometric Properties of the Job-Satisfaction Survey (JSS) In Adult ADHD Patients: The Adult ADHD-Job Satisfaction Scale (ADHD-JSS). *World Journal of Pharmaceutical and Life Sciences*, 8(7), 6–13.
- Gordon, C. T., & Fabiano, G. A. (2019). The Transition of Youth with ADHD into the Workforce: Review and Future Directions. *Clinical Child and Family Psychology Review*, 22(3), 316–347. <https://doi.org/10.1007/s10567-019-00274-4>
- Grinblat, N., & Rosenblum, S. (2023). Work-MAP Telehealth Metacognitive Work-Performance Intervention for Adults With ADHD: Randomized Controlled Trial. *OTJR Occupation, Participation and Health*. <https://doi.org/10.1177/15394492231159902>
- Henning, C., Summerfeldt, L. J., & Parker, J. D. A. (2022). ADHD and Academic Success in University Students: The Important Role of Impaired Attention. *Journal of Attention Disorders*, 26(6), 893–901. <https://doi.org/10.1177/10870547211036758>
- Henriksen, I. O., Ranøyen, I., Indredavik, M. S., & Stenseng, F. (2017). The role of self-esteem in the development of psychiatric problems: a three-year prospective study in a clinical sample of adolescents. *Child and Adolescent Psychiatry and Mental Health*, 11, 1–9. <https://doi.org/10.1186/s13034-017-0207-y>
- Hoffman, A. J., & Schacter, H. L. (2024). The promise of an identity-based self-affirmation intervention in protecting against self-esteem declines at the high school transition. *Developmental Psychology*. <https://psycnet.apa.org/record/2024-99932-001>
- Holthe, M. E. G., & Langvik, E. (2017). The Strives, Struggles, and Successes of Women Diagnosed With ADHD as Adults. *SAGE Open*, 7(1), 215824401770179. <https://doi.org/10.1177/2158244017701799>
- Ibukun, A., Oluyemi, O., Abidemi, B., Suraj, A., & Ola, F. (2015). Literacy about Attention-deficit/Hyperactivity Disorder among primary school teachers in Lagos, Nigeria. *British Journal of Medicine and Medical Research*, 8(8), 684–691.
- Idowu, S. A., Ifedayo, T. E., & Idowu, E. O. (2020). *Assessing the career conflict options of senior secondary school students of Ado-Odo Ota Local Government, Ogun State, Nigeria*. <http://repository.elizadeuniversity.edu.ng/handle/20.500.12398/1133>
- Issa, A. O., & Nwalo, K. I. N. (2008). Factors Affecting the Career Choice of Undergraduates in Nigerian Library and Information Science Schools. *African Journal of Library, Archives & Information Science*, 18(1).
- JASP Team. (2024). *JASP* (Version 0.19.1) [Computer software]. Center for Digital Scholarship. <https://jasp-stats.org/download/>

- Jimoh, M. (2014). Knowledge and attitudes towards attention deficit hyperactivity disorder among primary school teachers in Lagos State, Nigeria. *Advances in Life Science and Technology*, 23(9), 7–16.
- Joshi, H. M., & Angolkar, M. (2021). Prevalence of ADHD in Primary School Children in Belagavi City, India. *Journal of Attention Disorders*, 25(2), 154–160. <https://doi.org/10.1177/1087054718780326>
- Kazdin, A. E., & Association, A. P. (2000). *Encyclopedia of psychology* (Vol. 8). American Psychological Association Washington, DC.
- Kline, J. A. (2023). *The Relationship Between Self-Esteem and Job Satisfaction in Young Adults With Attention-Deficit/Hyperactivity Disorder* [PhD Thesis, The Chicago School of Professional Psychology].
- Kuster, F., Orth, U., & Meier, L. L. (2013). High Self-Esteem Prospectively Predicts Better Work Conditions and Outcomes. *Social Psychological and Personality Science*, 4(6), 668–675. <https://doi.org/10.1177/1948550613479806>
- LaCount, P. A., Hartung, C. M., Canu, W. H., & Knouse, L. E. (2019). Interventions for Transitioning Adolescents with ADHD to Emerging Adulthood: Developmental Context and Empirically-Supported Treatment Principles. *Evidence-Based Practice in Child and Adolescent Mental Health*, 4(2), 170–186. <https://doi.org/10.1080/23794925.2018.1518120>
- Lasisi, D., Ani, C., Lasebikan, V., Sheikh, L., & Omigbodun, O. (2017). Effect of attention-deficit–hyperactivity-disorder training program on the knowledge and attitudes of primary school teachers in Kaduna, North West Nigeria. *Child and Adolescent Psychiatry and Mental Health*, 11(1), 15. <https://doi.org/10.1186/s13034-017-0153-8>
- Levkovich, I., & Elyoseph, Z. (2021). College students with ADHD and their reasons for becoming teachers despite negative childhood experiences. *Asia-Pacific Journal of Teacher Education*, 49(4), 387–402. <https://doi.org/10.1080/1359866X.2020.1789912>
- Macasarte, R. S., & Quines, L. A. (2024). The influence of individual work performance and adaptive behavior on organization-based self-esteem. *European Journal of Education Studies*, 11(3), 244–278.
- Madubueze, M.H.C., Egberi, A. E., Ejiofor, I. C., & Nwadiogbu, N. M. (2024). Climate Change in South-East Nigeria: Losing Homes and Farmlands, Changing Settlements and the Future. *Environmental Smoke*, 7, 1–13. <https://doi.org/10.32435/envsmoke-2024-0004>
- Mandah, S. N., & Osuagwu, C. E. (2020). Characteristics behaviours and factors responsible for attention deficit hyperactivity disorder (ADHD) among senior secondary school students in rivers state, Nigeria. *European Journal of Special Education Research*, 6(1). <http://oapub.org/edu/index.php/ejse/article/view/3171>

- Mazzone, L., Postorino, V., Reale, L., Guarnera, M., Mannino, V., Armando, M., Fatta, L., De Peppo, L., & Vicari, S. (2013). Self-Esteem Evaluation in Children and Adolescents Suffering from ADHD. *Clinical Practice and Epidemiology in Mental Health : CP & EMH*, 9, 96–102. <https://doi.org/10.2174/1745017901309010096>
- Mohammed, Y. (2024). Interrogating Insurgence in the South-East Nigeria: A Political Brouhaha or a Political Solution?. *NG Journal of Social Development*, 13(2), 38–53.
- Nadeau, K. G. (2005). Career choices and workplace challenges for individuals with ADHD. *Journal of Clinical Psychology*, 61(5), 549–563. <https://doi.org/10.1002/jclp.20119>
- Nathoo, F. S., & Masson, M. E. (2016). Bayesian alternatives to null-hypothesis significance testing for repeated-measures designs. *Journal of Mathematical Psychology*, 72, 144–157.
- Ndukuba, A. C., Odinka, P. C., Muomah, R. C., Obindo, J. T., & Omigbodun, O. O. (2017). ADHD Among Rural Southeastern Nigerian Primary School Children: Prevalence and Psychosocial Factors. *Journal of Attention Disorders*, 21(10), 865–871. <https://doi.org/10.1177/1087054714543367>
- Oddo, L. E., Garner, A., Novick, D. R., Meinzer, M. C., & Chronis-Tuscano, A. (2021). Remote Delivery of Psychosocial Intervention for College Students with ADHD during COVID-19: Clinical Strategies, Practice Recommendations, and Future Considerations. *Evidence-Based Practice in Child and Adolescent Mental Health*, 6(1), 99–115. <https://doi.org/10.1080/23794925.2020.1855614>
- Ohabim, H. (2016). *Career Focused: Career Interventions to Increase Self-efficacy and Employment Among College Students with ADHD* [PhD Thesis, California State University, Northridge]. <https://scholarworks.calstate.edu/downloads/n296x208t>
- Ojionuka, A. N. (2016). *Nigerian educators' attention deficit hyperactivity disorder knowledge and classroom behavior management practices*. (Dissertation, Walden University).
- Okumura, Y., Yamasaki, S., Ando, S., Usami, M., Endo, K., Hiraiwa-Hasegawa, M., Kasai, K., & Nishida, A. (2021). Psychosocial Burden of Undiagnosed Persistent ADHD Symptoms in 12-Year-Old Children: A Population-Based Birth Cohort Study. *Journal of Attention Disorders*, 25(5), 636–645. <https://doi.org/10.1177/1087054719837746>
- Olatunji, G., Faturoti, O., Jaiyeoba, B., Toluwabori, A. V., Adefusi, T., Olaniyi, P., Aderinto, N., & Abdulbasit, M. O. (2023). Navigating unique challenges and advancing equitable care for children with ADHD in Africa: A review. *Annals of Medicine and Surgery*, 85(10), 4939–4946. <https://doi.org/10.1097/MS9.0000000000001179>
- Omozusi, M. O., & Obebe, O. C. (2024). Assessment of the Knowledge, Perception, and Attitude of Parents Towards Children with Attention Deficit Hyperactivity Disorder. *Pan-African Journal of Health and Environmental Science*, 3(1), 108–123.

- Onyishi, C. N. (2024). Exploring Institutional Support Needs for Career Transitioning among Students with Visual Impairments: A Scoping Review. *International Journal of Home Economics, Hospitality and Allied Research*, 3(1), 139–161. <https://doi.org/10.57012/ijhhr.v3n1.012>
- Patton, E. (2024). *Neurodiversity and Work: Employment, Identity, and Support Networks for Neurominorities*. Springer Nature. <https://doi.org/10.1007/978-3-031-55072-0>
- Perry, R. C., Ford, T. J., O'Mahen, H., & Russell, A. E. (2021). Prioritising Targets for School-Based ADHD Interventions: A Delphi Survey. *School Mental Health*, 13(2), 235–249. <https://doi.org/10.1007/s12310-020-09408-4>
- Pierce, J. L., & Gardner, D. G. (2004). Self-esteem within the work and organizational context: A review of the organization-based self-esteem literature. *Journal of Management*, 30(5), 591–622.
- Polanczyk, G., De Lima, M. S., Horta, B. L., Biederman, J., & Rohde, L. A. (2007). The worldwide prevalence of ADHD: A systematic review and metaregression analysis. *American Journal of Psychiatry*, 164(6), 942–948. <https://doi.org/10.1176/ajp.2007.164.6.942>
- Rasmussen, I. L., Ørjasæter, K. B., Schei, J., & Young, S. (2022). Rise and shine: Exploring self-esteem narratives of adolescents living with a diagnosis of attention-deficit/hyperactivity disorder. *International Journal of Adolescence and Youth*, 27(1), 569–581. <https://doi.org/10.1080/02673843.2022.2156297>
- Reichardt, C. S. (2009). Quasi-experimental design. *The SAGE Handbook of Quantitative Methods in Psychology*, 46–71.
- Richelieu, D. (2024). *Self-Esteem Among Adults with ADHD Symptoms*. <https://scholarworks.waldenu.edu/dissertations/15521/>
- Riopel, L. (2020, January 30). 7 Most Effective Self-Esteem Tools and Activities. *PositivePsychology.Com*. <https://positivepsychology.com/self-esteem-tools-activities/>
- Robertson, G. U. (2021). *Explanatory Models of Autism in Nigeria: Exploring Sociocultural Beliefs to Inform Systems of Care*. https://egrove.olemiss.edu/hon_thesis/1849/
- Rosenberg, M. (1989). *Society and the adolescent self-image*. Wesleyan University Press.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, 141–156.
- Salari, N., Ghasemi, H., Abdoli, N., Rahmani, A., Shiri, M. H., Hashemian, A. H., Akbari, H., & Mohammadi, M. (2023). The global prevalence of ADHD in children and adolescents: A systematic review and meta-analysis. *Italian Journal of Pediatrics*, 49(1), 48. <https://doi.org/10.1186/s13052-023-01456-1>

- Sansosti, F. J., Cimera, R. E., Koch, L. C., & Rumrill, P. (2017). Strategies for ensuring positive transition for individuals with attention-deficit/hyperactivity disorder. *Journal of Vocational Rehabilitation*, 47(2), 149–157. <https://doi.org/10.3233/JVR-170891>
- Shaikh, A. (2018). Group Therapy for Improving Self-Esteem and Social Functioning of College Students With ADHD. *Journal of College Student Psychotherapy*, 32(3), 220–241. <https://doi.org/10.1080/87568225.2017.1388755>
- Sinnari, D., Krause, P., & Abulkhair, M. (2018). Effects of E-games on the development of saudi children with attention deficit hyperactivity disorder cognitively, behaviourally and socially: An experimental study. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 10907 LNCS, 598–612. https://doi.org/10.1007/978-3-319-92049-8_44
- Soares, J., Carvalho, C., & Silva, A. D. (2022). A systematic review on career interventions for university students: Framework, effectiveness, and outcomes. *Australian Journal of Career Development*, 31(2), 81–92. <https://doi.org/10.1177/10384162221100460>
- Song, S. (2024). The Role of Cultural Factors in Attention Deficit Hyperactivity Disorder (ADHD) Diagnosis in Children in Nigeria. *Studies in Psychological Science*, 2(1), 40–47.
- Stark, I., Rast, J. E., Lundberg, M., Döring, N., Ohlis, A., Idring Nordström, S., Rai, D., & Magnusson, C. (2024). Completion of Upper Secondary Mainstream School in Autistic Students in Sweden. *Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s10803-024-06470-8>
- The Summit Academy Schools. (2023, October 4). Understanding ADHD in Children – Four Facts to Know. *The Summit Academy Schools*. <https://summitacademies.org/warren-elementary/2023/10/04/understanding-ad-hd-in-children-four-facts-to-know/>
- Thompson, M. N., Her, P., Fetter, A. K., & Perez-Chavez, J. (2019). College Student Psychological Distress: Relationship to Self-Esteem and Career Decision Self-Efficacy Beliefs. *Career Development Quarterly*, 67(4), 282–297. <https://doi.org/10.1002/cdq.12199>
- University of Washington. (2002, August 6). People With Low Self-Esteem Less Motivated To Break A Negative Mood. *ScienceDaily*. www.sciencedaily.com/releases/2002/08/020806081023.htm
- Van Den Bergh, D., Wagenmakers, E.-J., & Aust, F. (2023). Bayesian Repeated-Measures Analysis of Variance: An Updated Methodology Implemented in JASP. *Advances in Methods and Practices in Psychological Science*, 6(2), 25152459231168024. <https://doi.org/10.1177/25152459231168024>
- Vasko, J. M., Oddo, L. E., Meinzer, M. C., Garner, A., & Chronis-Tuscano, A. (2020). Psychosocial interventions for college students with ADHD: Current status and future directions. *The ADHD Report*, 28(4), 5–12.

- Whiston, S. C., & Blustein, D. L. (2013). The impact of career interventions: Preparing our citizens for the 21st century jobs. *Policy Brief). National Career Development Association and the Society for Vocational Psychology*.
- Woodley, K. K. (2023). *Before Culturally Responsive Teaching... Do They Even Know Culture: Exploration of Virtual Middle School Teacher Perception of ADHD and Culture* (Doctoral dissertation, Texas A&M University).
- Yuen, M., Zhang, J., Man, P. K. W., Mak, J., Chung, Y. B., Lee, Q. A. Y., Chan, A. K. C., So, A., & Chan, R. T. H. (2022). A Strengths-Based Longitudinal Career Intervention for Junior Secondary School Students with Special Educational Needs: A Mixed-method Evaluation. *Applied Research in Quality of Life*, 17(4), 2229–2250.
<https://doi.org/10.1007/s11482-021-10028-6>

Contact email: chiediue@uj.ac.za