

Perceived Implication of Cyber Relational Addiction on Young Adults Social Well-Being in Ogun State, Nigeria**Emmanuel Akinyemi Adenuga¹, Adeola Oladele Ogunsanya²**¹Human Kinetics and Health Education Department, Olabisi Onabanjo University²Department of Arts and Social Sciences Education, Olabisi Onabanjo University, Ago-Iwoye**Abstract**

This study assessed the implications of Cyber Relational Addiction (CRA) on social well-being of young adults in the study location. The study used descriptive survey design and a sample size of five hundred young adults selected through convenience sampling techniques. The instrument used for the study was a self-structured questionnaire with reliability index of 0.85. Data obtained were analyzed with the aid of Statistical Package for Social Science, using frequency count, percentage and Chi-square to answer the research questions. The CRA exists among 62.2% female and 79% among age 21 - 25 years, and there was a slight difference in the magnitude based on educational level with 46.2% Secondary and 53.8% post-secondary education. Chi-square result indicates that its negative implications on the Aspects of young adults Social Well-Being are significant are at 0.05 level in the study location. The finding was that CRA negative implications outweigh its positive effects in the study location. Based on this, among the recommendations made was that schools and institutions should organize aggressive awareness campaign to educate students on the risks and negative impact of CRA on social well-being as well as encourage the young adults to balance online and offline relations.

Keywords: Addiction, Cyber Relational Addiction, Well-Being, Social Well-Being

Introduction

The high influence of technology on lifestyle has an important bearing on both the physical and mental health of an individual. Young adults spend a significant amount of time on the internet. The easy access to the internet changes their lives and directly or indirectly affecting their ideas, habits and behaviour. Their overindulgence is problematic to their individual's life and their immediate community. According to Baroncelli, et al., (2020) and Bastiaenssens, et al., (2020), the population of young adults that used the internet has increased from 0.7% to 89.4%. This is an indication that the internet is highly accessible by young adults. The high accessibility is due to cheap prices, online business and educational activities they engaged on. Progress in technology especially in the area of information and communication has no doubt improved livelihood and has bought dexterity in human day-to-day activities in all areas. However, its tremendous advantage and the increasing roles played in social life has led to its excessive use which, is consequently threatening safe social life (Chen, et al., 2021).

Cyber relational addiction encompasses obsession to all modes of social networking, face-book, and online dating services such as UniformDating.com along with many other communication platforms, (Fitzgerald, 2023). This is a social problem among young adults due to the Internet's overindulgence. In recent time, increasing level of this addiction has been reported as one type of behavioural addiction among the internet users' especially young adults (Levy, 2023; Das, et al., 2020). Inquiries in some states in Nigeria recorded alarming rates of 10.2%, its prevalence and depression in Enugu, 29.0% mild addiction, 20.0% moderate addiction, and 10.2% severe addiction. The prevalence is 3.3% in a male to female ratio of 3:1 among young adults, (Obi, et al., 2019; Ogboghodo, et al., 2024). Based on these submissions, this study therefore examined the implication of Cyber relational addiction on subjective wellbeing of young adults in Ogun State, Nigeria.

The CRA is a subtype of Internet Addiction Disorder (IAD). It is an unhealthy obsession with virtual relationships formed through social media, chat rooms, messaging apps, online

dating platforms, and multiplayer online games (Klettke, et al., 2021; Cheng, et al., 2021). Studies established the influence of gender on this addiction; 12% males are more prone to CRA than females and 28% of females likely have the symptom of the addicted more than male. Sixty-nine percent males have limited symptoms while 61% females have behavioural pathology (Ekşi, Demirci, & Tanyeri, 2020).

The addicts are the Information Technology (IT) literates who can use the facilities very well and can manipulate them for their selfish ends. Young adults are prone to this addiction due to their developmental needs (Henry, et al., 2020). Emotional and behavioural problems have been associated with problematic Internet use (Root, 2023), and this addiction (Rao, 2024). Digital game play (Akçayır, et al., 2023), and heavy smartphone use (Utz, et al., 2020; Wang, et al., 2020) seem to cause young adults to develop technology addiction (Tereshchenko, et al., 2024). This has significant implication on the well-being of young adults.

Well-being is a subcategory of mental health which consists negative and positive mental health (Huang, 2020). Negative mental health includes subclinical negative mental health, such as stress or negative effect, and psychopathology, such as depression or schizophrenia Sánchez-Meca, et al., (2020). Positive mental health is a synonym for well-being; it comprises hedonic well-being and eudaimonic well-being as established by Pogorskiy, et al., (2023). Whereas hedonic well-being is affective, focusing on emotions, pleasure, or need satisfaction, eudaimonic well-being is cognitive, addressing meaning, self-esteem, or fulfillment.

Experts established that 31% positive effect of technology on well-being of young adults, 45% neither positive nor negative, and 24% mostly negative (Ekşi, et al., 2020). The reasons for the positive effects include constant connection with friends; information acquisition and linking with like-minded people (Patchin, & Hinduja, 2021). The reasons for its negativity include the increase risks of bullying; neglecting face-to-face contacts; and obtaining unrealistic impressions of other young adults' lives (Klettke, et al., 2021). Odgers, & Jensen, (2020)

linked CRA to excessive screen time, insufficient sleep, physiological stress, mind wandering, attention deficit-hyperactivity disorder (ADHD)-related behaviour, and nonadaptive/negative thinking styles, which decreased wellbeing and increased the potential health risks among the young adults (Meier, & Reinecke, 2020).

According to Fitzgerald, (2023) young adults that overly engaged in online relationships exhibited symptoms of anxiety due to fear of losing connections or being judged online. Levy, (2023) posited a strong correlation between problematic internet use, including excessive online interactions, and depressive symptoms, largely stemming from feelings of isolation and low self-esteem. Addicted young adults developed emotional dependencies because they rely heavily on online interactions for validation and support. Klettke, et al., (2021), asserted that the dependency results in emotional exhaustion due to stress from maintaining constant availability online. Cyber relational addiction hinders the development of essential interpersonal skills. Rao, (2024) and Root, (2023) established that the addiction poses difficulty in engaging in real-world social interactions due to an overreliance on online communication. This condition boosts the cycle of avoidance among young adults whereby they retreat into digital spaces.

Akçayır, et al., (2023) revealed that late-night engagement with digital platforms negatively impacts sleep duration and quality, contributing to fatigue and reduced cognitive performance of young adults. This often leads to distraction and procrastination among them. Chen et al. (2021) highlighted that the addiction adversely affect academic performance of school young adults, it diverts their attention from essential tasks. Though Wang et al. (2020) posited that young adults with higher self-awareness and self-regulation skills experienced less negative outcomes despite frequent online interactions. The presence of strong offline support networks can mitigate the adverse effects of cyber relational addiction. According Tereshchenko, et al., (2024), established that young adults with robust family and peer support develops less severe symptoms of addiction and they

maintained better overall well-being.

Based on the review, this addiction has multifaceted effects on the well-being of young adults. This encompasses psychological, social, and physical dimensions of well-being. Online relationships provide emotional support and connection, excessive reliance on them results in adverse outcomes. There is little or no study on this addiction in the study location where the young adults spend significantly time with technology. Therefore, this study examined the effects of Cyber relational addiction on social well-being of the young adults in Ogun State.

Objective of the study

This study examined the effects of Cyber relational addiction on the social well-being of young adults in Ogun State, Nigeria. It specifically examined the aspects of young adults Social Well-Being impaired by Cyber Relational Addiction, its effects among young adults and its implications on the identified aspects of Social Well-Being among young adults in Ogun State.

Research Questions

The following questions guided this study.

1. What are the Aspects of young adults Social Well-Being impaired by Cyber Relational Addiction in Ogun State?
2. What are the effects of CRA among young adults in Ogun State?
3. What are the implications of Cyber Relational Addiction on the Aspects of Social Well-Being young adults in Ogun State?

Methodology

This study adopted descriptive survey research design. The purpose of using this type of research design is to describe the data and characteristics about what is being studied. This was done with belief that the interaction of the variables on each other has been completed

before the researcher begins the research. The population of this study comprised young adults in Ogun State, Nigeria. The sample size for this study comprised five hundred young adults (500) selected in Ogun State. Convenience sampling techniques was used to select the young adults for this study. The reason for these sampling techniques is to allow the researcher to sample those who would be willing to respond to the questionnaire.

The instrument used for this study was self structured questionnaire titled "*Cyber Relational Addiction Implication Questionnaire*". The questionnaire was designed in line with the objectives stated in the study. The Part A consists of the demographic information of the respondents while Part B focused on the implication of Cyber relational addiction on social well-being of young adults in the study location.

The face and content validity of the instrument was ascertained through scrutiny by the expert in the field of Health Education, health counselling and health technology before proceeding for administration of the instrument. Its reliability was ensured through a pilot test conducted between two weeks interval and the data obtained was subjected to Pearson Moment Correlation Coefficient (PMCC) analysis which yielded 0.85.

The questionnaire was distributed to those who were willing to participate in the study. The consent of the participants was sought and they were made to understand the purpose of the questionnaire. The questionnaire was retrieved immediately after administration and subjected the data collected to appropriate analysis. The statistical methods used consist of frequency count, percentage, and Chi-square analysis with the aid of the Statistical Package for Social Science (SPSS) software.

Table 1: Descriptive and chi-square report of Participants Demographic Information

		Frequency	%	X ²	Remarks
Gender	Male	189	37.8	60.481	Sig
	Female	311	62.2	52.990	Sig
Age (Year)	15 – 20	105	21.0	33.610	Sig.
	21 – 26	395	79.0	61.241	Sig.
Educational Level	Secondary	231	46.2	73.921	Sig.
	Post-Secondary	269	53.8	86.083	Sig

Table 1 revealed that CRA is noteworthy among female 62.2%. Age distribution of respondents showed 79% among age 21 - 26 years. There is a slight difference in the magnitude based on educational level. Secondary school has 46.2% and 53.8% post-secondary school. The significance of CRA based on the demography of the participants is established with the chi-square result at 0.05 level. This implies that CRA is significant among age group, gender, and

education level in the study location.

Research Question 1: What are the Aspects of young adults Social Well-Being impaired by Cyber Relational Addiction in Ogun State?

Table 2: Chi-square analysis of young adults Social Well-Being Aspects impaired by Cyber Relational Addiction

	Df	X ²	Remarks
Quality of Relationships	3	55.311	Sig
Social Connections	3	51.333	Sig
Sense of Belonging	3	36.116	Sig.
Community Engagement	3	35.243	Sig.
Cultural and Identity Factors	3	43.231	Sig.

Table 2 revealed that the chi-square value of young adults Social Well-Being Aspects impaired by Cyber Relational Addiction are significant at 0.05 level of 3 degree of freedom. This implies that the aspects of young adults Social Well-Being are considerably impaired by Cyber Relational Addiction. The young adults Social Well-Being Aspects impaired by Cyber Relational Addiction in the study location are Quality of Relationships, Social Connections, Sense of Belonging, Community Engagement,

and Cultural and Identity Factors.

Research Question 2: What are the implications of Cyber Relational Addiction on the Aspects of Social Well-Being young adults in Ogun State?

Table 3: Chi-square result of Cyber Relational Addiction implications on Social Well-Being Aspects of young adults

		F	%	DF	X ²	Remarks
Quality of Relationships	Positive	191	38.2	3	0.926	Not Sig.
	Negative	309	61.8	3	31.933	Sig
Social Connections	Positive	103	20.6	3	2.672	Not Sig
	Negative	397	79.4	3	11.515	Sig
Sense of Belonging	Positive	215	43.0	3	2.310	Not Sig
	Negative	285	57.0	3	21.493	Sig
Community Engagement	Positive	191	38.2	3	3.020	Not Sig
	Negative	309	61.8	3	31.337	Sig
Cultural and Identity Factors	Positive	104	20.8	3	2.672	Not Sig
	Negative	396	79.2	3	10.152	Sig

Table 3 indicates the chi-square report of Cyber Relational Addiction implications on Social Well-Being Aspects of young adults in Ogun State. Based on percentage, the magnitude of negative implications are less than the positive implications. Negative social connection and cultural identity has 79%, followed by negative relationship quality and community engagement. The positive implications are negligible while the negative implications are substantial among the participants. Chi-square results indicate that negative implications of Cyber Relational Addiction on Social Well-

Being Aspects of young adults are significant while the positive implications are not at 0.05 level. This implies that Cyber Relational Addiction has negative implications on the aspects of young adults Social Well-Being in Ogun State. The aspects of negative implications are Quality of Relationships, Social Connections, Sense of Belonging, Community Engagement, and Cultural and Identity Factors.

Research Question 3: What are the effects of CRA on Social Well-Being of young adults in Ogun State?

Table 4: Chi-square report of the effects of CRA among young adults

	df	X ²	Remarks
Poor In-person interactions	3	10.486	Sig
Social anxiety or depression	3	29.590	Sig
Unhealthy relationships with peers, family,	3	31.613	Sig.
Poor Participation in community activities	3	21.416	Sig.
Poor Navigation of identity	3	32.917	Sig.

Table 4 indicates the chi-square analysis of the effects of CRA on young adults Social Well-Being in Ogun State. The effects of CRA on Social Well-Being of young adults are significant in the study location at 0.05 significant level. This implies that the noteworthy effects of CRA in the study location are poor in-person interactions, Social anxiety or depression, Unhealthy relationships with peers, family, Poor Participation in community activities, and Poor Navigation of identity.

Discussion of the Findings

The findings revealed that Cyber relational addiction is significant among females more than males. This aligns with the suggestion of Pogorskiy, et al., (2023) that women are more likely to engage in emotionally-driven and relationally-oriented online interactions. The heightened prevalence among females attributed to their preference towards maintaining social connections and emotional intimacy through digital platforms (Wang, et al., 2020). The addiction is significant among emerging adults. This group is characterized by heightened engagement with technology due to academic, social, and professional demands as established

by Utz, et al., (2020).

The slight difference in CRA magnitude based on education level indicates that secondary and post-secondary students are significantly affected. Young adults in these educational stages spend substantial time online for both academic and social purposes. This increases their susceptibility to CRA (Sánchez-Meca, et al., 2020). This pattern underscores the need for targeted interventions to address CRA at these educational levels.

The findings revealed that the addiction impaired Social Well-Being Aspects of young adults in the study location. The study specifically indicates significant impairments in areas such as the quality of relationships, social connections, sense of belonging, community engagement, and cultural and identity factors. These align with the observation of Patchin, and Hinduja, (2021) that negative online interactions impair offline social experiences. The addiction affects the core component of social well-being of young adults. This is because excessive reliance on digital relationships erodes the depth and genuineness of interpersonal interactions. This leads to

superficial connections (Odgers, & Jensen, 2020). The frequency and depth social connection among emerging adults is compromised as they prioritize online interactions over meaningful face-to-face engagements (Meier, & Reinecke, 2020).

Young adults experiencing this addiction feel disconnected from their physical environments and communities, as they direct their attention toward virtual spaces (Klettke, et al., 2021). This disconnection reduces their engagement in community activities, limiting opportunities for personal growth and collective contribution (Huang, 2020). The finding that cultural and identity factors are also impaired by CRA is in support of the submission of Henry, et al., (2020) that over-reliance on online relationships leads to disconnection with cultural heritage and local identity. The homogenized culture promote by online platforms overshadow cultural values and traditions (Ekşi, et al., 2020), and this ultimately affect sense of self and community belonging of emerging adults (Das, et al., 2020).

Negative effects of CRA on the social well-being aspects of young adults outweigh its positive implications. This implies that CRA has detrimental impact on several aspects of social well-being, including quality of relationships, social connections, sense of belonging, community engagement, and cultural and identity factors. This aligns with the assertion of Cheng, et al., (2021) that the negative impact of CRA on the quality of relationships is due to the priority the young adults place on online interactions over face-to-face relationships. This diminishes opportunities for meaningful social connections (Chen, et al., 2021), weaken emotional bonds and lead to feelings of isolation among them (Bastiaenssens, et al., 2020). The reduced sense of belonging and community engagement is attributed to the time spent in virtual spaces, which limits participation in real-life community activities and events (Baroncelli, et al., 2020).

The effects of CRA include poor in-person interactions, increased social anxiety or depression, challenges in maintaining healthy relationships with peers and family, limited participation in community activities, and

difficulties navigating identity. These findings underscore the broader social and psychological consequences of CRA among young adults. This is in line with the Observation of Klettke, et al., (2021); Fitzgerald, (2023) and Levy, (2023) that over engagements of young adults in virtual world overrides their face-to-face communication. This weakened their interpersonal skills and diminished their ability to form meaningful real-life relationships (Akçayır, et al., 2023). The finding that the addiction hampers the healthy relationships of young adults with their peers and family, aligns with the position of Tereshchenko, et al., (2024) that excessive time they spend online reduces their quality and quantity real-life interactions, and this strain family ties and weak their connection with their peers. They develop idealized online personas, which conflict with their real identities (Pogorskiy, et al., 2023). This post challenges on their self-discovery (Meier, & Reinecke, 2020).

Conclusion

The findings of this study demonstrate that Cyber Relational Addiction (CRA) is a significant issue among young adults in Ogun State, particularly among females and those aged 21–25 years. There is slight difference in its prevalence between secondary and post-secondary education levels. This indicates that both groups are substantially affected. The addiction significantly impairs young adults' social well-being aspects, including quality of relationships, social connections, sense of belonging, community engagement, and cultural and identity factors.

The negative implications of CRA on young adults' social well-being outweigh its positive effects in the study location. Young adults affected by CRA experience poor in-person interactions, increased social anxiety or depression, strained relationships with peers and family, limited community participation, and difficulties navigating their identity. This study highlights the importance of fostering awareness about the adverse effects of CRA while promoting strategies to encourage healthy online and offline interactions. Schools, families, and communities must collaborate to provide young adults with the resources and

support needed to balance their digital and real-world engagements, ultimately improving their overall social well-being.

Recommendations

Based on the findings, the following recommendations are proposed to address the significant effects of Cyber Relational Addiction (CRA) among young adults in the study location:

1. Schools and institutions should organize aggressive awareness campaign to educate students on the risks and negative impact of CRA on social well-being. This should focus on helping young adults to balance meaningful face-to-face and online relationships.
2. Inclusive programme which could be titled Digital Literacy and Healthy Online Behaviour should be introduced at both secondary and post-secondary levels through their health education curriculum to teach young adults how to use technology responsibly with emphasis on the importance of setting boundaries for online activities and avoidance of emotionally-driven online interactions.
3. Schools, secondary and post-secondary, should add and provide CRA counselling services to help young adults struggling with CRA. Professional support can assist in addressing social anxiety, depression, and identity challenges caused by excessive online interactions. Mental health professionals should also focus on building self-esteem and promoting offline social connections.
4. Community leaders, educators, parents, and organizations should encourage young adults to participate in community-building activities. Programs such as volunteering, sports, cultural events, and mentorship opportunities can help them reconnect with their physical environment and improve their sense of belonging.
5. Families should be encouraged to foster open communication and engage in shared offline activities. This can help strengthen family bonds and create opportunities for young adults to feel connected to their immediate support system.

References

- Akçayır, M., Nicoll, F. & Baxter, D.G. (2023). "Emerging Gambling Problems and Suggested Interventions: A Systematic Review of Empirical Research". *Journal of Gambling Studies*. 39 (2): 857–882.
- Baroncelli, A., La Rocca, G., Tiberi, L., & Brighi, A. (2020). The effectiveness of a virtual reality-based intervention on empathy and aggressive behaviour in adolescents involved in cyberbullying. *Journal of Interpersonal Violence*, 0886260520964711.
- Bastiaensens, S., Vandebosch, H., Poels, K., Van Cleemput, K., DeSmet, A., & De Bourdeaudhuij, I. (2020). Cyberbullying on social network sites. An experimental study into bystanders' behavioural intentions to help the victim or reinforce the bully. *Computers in Human Behaviour*, 31, 259-271.
- Chen, L., Zhang, S., & Liu, T. (2021). Impact of social media addiction on academic performance: A longitudinal study among young adults. *Journal of Behavioural Addictions*, 10(3), 245-258.
- Cheng, Q., Zhang, L., & Yang, Y. (2021). A systematic review of school-based interventions to prevent cyberbullying. *Aggression and Violent Behaviour*, 58, 101561.
- Das, J., Jones-Harrell, C., Fan, J., Ramaswami, R., Orlove, B., & Botchwey, N. (2020). Determinants of subjective well-being: A scoping review. *SSM-population health*, 10, 100-538
- Ekşi, H., Demirci, Ş., & Tanyeri, İ. (2020). Prevalence and Risk Factors of Abuse Among Adolescents in Turkey: A Cross-sectional Study. *Journal of Interpersonal Violence*, 35(11-12), 2157-2179.
- Fitzgerald, T., (2023). "DC, Maryland, Virginia sue Facebook, Instagram for fueling kids' 'addiction' to social media". Fox5 Washington DC.
- Henry, N., Powell, A., & Flynn, A. (2020). Imagery-based sexual abuse: A rapid evidence assessment. *Journal of Aggression, Conflict and Peace Research*, 12(4), 238-248.

- Huang, C. (2020). Emotional dependency and cyber relational addiction: A study on digital relationships among college students. *Computers in Human Behaviour*, 108, 106306.
- Klettke, B., Mellor, D. J., Miles, M., & Skues, J. L. (2021). Nobody would put up with that: Examining young adults' experiences of digital abuse in romantic relationships. *Computers in Human Behaviour*, 114, 106586.
- Levy, M. (2023). "I'm addicted to the internet – an 11-day online binge cost me my career". The Telegraph. [ISSN 0307-1235](#). Retrieved 2024-10-02.
- Meier, A., & Reinecke, L. (2020). Digital technology and well-being: A call for an interdisciplinary perspective. *Social Science & Medicine*, 113-236.
- Obi IE, Aniebue PN, Ndu AC, Okonkwo K, Okeke TA, & Ugwunna N (2019). Prevalence of Depression among Health Workers in Enugu, South East Nigeria. *Nigerian Journal of Clinical Practice*. 18(3):342-347. DOI: 10.4103/1119-3077.250524 P
- Odgers, C. L., & Jensen, M. R. (2020). Annual Research Review: Adolescent Mental Health in the Digital Age: Facts, Fears, and Future Directions. *Journal of Child Psychology and Psychiatry*, 61(3), 336-348.
- Ogboghodo, E. O, Omoregie E. K, Omoike, E, & Omuemu, V. O. (2024). Internet addiction among undergraduate students in Southern Nigeria: Implications for policy and practice. [Journal of Medicine and Biomedical Research](#). 23 (1). DOI:[10.4314/jmbr.v23i1.6](#)
- Patchin, J. W., & Hinduja, S. (2021). Digital abuse: Prevention and intervention strategies. In *The Routledge Handbook of Technology, Crime, and Justice* (pp. 291-307). Routledge.
- Pogorskiy, E., & Beckmann, J. F. (2023). ["From procrastination to engagement? An experimental exploration of the effects of an adaptive virtual assistant on self regulation in online learning"](#). *Computers and Education: Artificial Intelligence*. 4: 100111. doi:[10.1016/j.caeai.2022.100111](#).
- Rao, Y. (2024). "How China's Young "Internet Addicts" Gamify the Disciplinary Treatment Camp". In Guo, Li; Eyman, Douglas; Sun, Hongmei (eds.). *Games & Play in Chinese & Sinophone Cultures*. Seattle, WA: University of Washington Press. [ISBN 9780295752402](#).
- Root, R. (2023). "'This is an epidemic': inside the Thai clinic taking on westerners' gaming addictions". The Guardian. [ISSN 0261-3077](#). Retrieved 2024-10-02.
- Sánchez-Meca, J., López-Pina, J. A., & Llor-Esteban, B. (2020). The effects of cyberbullying on mental health: A systematic review. *Archives of Psychiatric Nursing*, 34(2), 101-112.
- Tereshchenko, Sergey; Kasparov, Edward; Manchuk, Valery; Evert, Lidia; Zaitseva, Olga; Smolnikova, Marina; Shubina, Margarita; Gorbacheva, Nina; Novitskii, Ivan; Moskalenko, Olga; Lapteva, Ludmila; & Griffiths, Mark D. (2024). "Recurrent pain symptoms among adolescents with generalized and specific problematic internet use: A large-scale cross-sectional study". *Computers in Human Behaviour Reports*. 16: 100506.
- Utz, S., Kerkhof, P., & van den Bos, M. (2020). A closer look at online harassment: Examining the role of perpetrators' and victims' perceptions. *Social Media + Society*, 6(2), 1-13.
- Wang, C., Huang, L., & Wang, J. (2020). Self-regulation as a buffer against cyber relational addiction in young adults. *Personality and Individual Differences*, 161, 109971.

Teacher's empathy as correlate of mathematics achievement among senior secondary school students in Oyo State, Nigeria**J.G. Adewale, Comfort A. Boyede**

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Abstract

This study investigated the correlation between teachers' empathy and students' mathematics achievement among Senior Secondary School students in Oyo State, Nigeria. Despite the importance of mathematics in scientific and technological development, students' persistent underperformance in the subject remains a pressing issue. While numerous studies have examined factors influencing mathematics achievement, limited attention has been given to the role of teachers' empathy. A correlational research design was adopted, involving 490 Senior Secondary School 2 (SS2) students across six secondary schools in Ibadan North and Egbeda Local Government Areas. Data were collected using the Students' Perception of Teachers' Empathy Questionnaire (SPTEQ) ($r = 0.81$) and a Mathematics Achievement Test (MAT) ($KR20 = 0.7$). The analysis was conducted using Pearson Product-Moment Correlation. Findings revealed that 43.7% of students perceived their teachers' empathy as low, 19% as medium, and 37.3% as high. Additionally, results showed a significant and positive correlation between teachers' empathy and students' mathematics achievement ($r = 0.1$, $p < 0.05$), suggesting that higher teacher empathy is associated with improved mathematics performance. This study concludes that fostering teacher empathy could enhance students' academic engagement and achievement. It recommends the implementation of training programs to improve teachers' empathetic skills and strengthen teacher-student relationships for better mathematics outcomes.

Keywords: Teachers' empathy, Mathematics achievement, Correlational study, Teacher-student relationship, Student Perception

Background to the Study

Mathematics as a discipline encompasses the study of numbers and shapes, serving as a fundamental pillar across various fields of knowledge. It is widely regarded as the science of magnitude and number, playing an indispensable role in virtually every domain. The significance of mathematics lies in its ability to cultivate problem-solving skills and foster critical thinking among learners, laying a sturdy foundation for numerous disciplines and careers. Akinoso (2011) underscores mathematics as the bedrock for scientific and technological advancements, emphasising its pivotal role in driving progress. Indeed, mathematics is often hailed as the universal language, serving as a conduit for communication and understanding across cultures and disciplines. Its mastery is imperative for academic success and extends to practical applications in daily life, from financial management to the facilitation of technological innovations.

Mathematics achievement stands as a crucial component of academic success in today's era. Hussein M., Ow, S., Elaish, M., and Jensen, E. (2022) delineate achievement as the quantifiable measure of accomplishment within a specific realm of study, emphasizing the demonstration of students' abilities to reach prescribed levels of instructional objectives stemming from their classroom learning and experiences. Schoenfeld and Kilpatrick (2008) expound on mathematical achievement by defining it as the proficiency exhibited by students in the domain of mathematics. This proficiency encompasses the application of acquired knowledge, understanding, skills, and techniques within the subject, reflective of a particular stage of learning. The yardstick for mathematical achievement typically manifests in students' scores on mathematics achievement tests. Indeed, mathematical achievement serves as a linchpin for success across numerous professions, underlining its significance beyond