



Unspoken Challenges: Unveiling The Hidden Psychosocial Struggles of Adolescents Living with Cerebral Palsy in Ibadan, Nigeria

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Abstract

Cerebral palsy is a brain condition that affects movement and coordination, causing serious physical challenges for young people with the condition in the world. However, beyond these physical difficulties, many psychological problems are not being addressed. This study aims to uncover the hidden psychological problems of adolescents with cerebral palsy in Ibadan and look into the factors that contribute to these challenges. The qualitative approach was used to gather information for the research, utilizing snowball sampling to select 10 adolescents living with cerebral palsy, with a mean age of 18.3, and 2 professionals teaching them. Focus group discussions and key informant interviews were conducted to collect data, and descriptive statistics and thematic analysis were used to analyze the findings. The results of the study showed that the adolescents experienced lack of awareness and understanding of cerebral palsy, emotional distress and low self-esteem due to disability, experiences with peer relationships, academic barriers due to physical limitations, family support, internal and external stigmatization and sexual vulnerability and emotional dependence. This study shows that teenagers with cerebral palsy in Ibadan deal with many mental and emotional problems in addition to their physical challenges. They often struggle with sadness, low confidence, difficulties in school and friendships, limited understanding of their condition, and stigma from both themselves and others. These issues make them more dependent and vulnerable. The results point to the need for mental health care to be part of cerebral palsy treatment. Based on these findings, the study recommends that more attention be given to the psychological challenges faced by adolescents living with cerebral palsy, and that psychological interventions be included in the management of the condition.

Keywords: Psychological issues, cerebral palsy, adolescents, psychological intervention.

Introduction

Cerebral palsy is one of the most common long-term disabilities in children. It occurs when the brain is damaged or develops abnormally before, during, or soon after birth, affecting movement, posture, and muscle control. Globally, cerebral palsy remains a major health problem because it lasts for life and places a heavy burden on families and health systems. Recent studies show that in high-income countries, about 1.5 to 1.6 out of every 1,000 babies are born with cerebral palsy, while in many

low- and middle-income countries, the rates are higher, sometimes exceeding three children per 1,000 live births (McIntyre et al., 2022). These disparities are largely due to limited access to quality maternal and neonatal care, higher rates of birth complications, and inadequate rehabilitation services. In Africa, cerebral palsy is a leading cause of childhood disability, with prevalence estimated at about 3.3 per 1,000 live births (Girma et al., 2023). The spastic subtype accounts for roughly 70% of cases, and many children also suffer from comorbid conditions such as epilepsy, learning difficulties, and malnutrition, which complicate daily functioning (Donald et al., 2023). The most common causes include perinatal asphyxia, untreated severe neonatal jaundice, infections during pregnancy, and conditions such as malaria that trigger seizures in young children (Donald et al., 2020). These challenges highlight the gaps in maternal and child health systems across the continent.

In Nigeria, cerebral palsy is the most common physical disability in children. A community-based study in Cross River State reported a prevalence of about 2.3 per 1,000 children (Donald et al., 2020). Similar to other African countries, spastic cerebral palsy is the predominant type, often affecting both sides of the body. Major risk factors in Nigeria include prolonged or obstructed labour, perinatal asphyxia, severe neonatal jaundice, congenital infections such as rubella, and post-neonatal illnesses like malaria with seizures (Adebayo et al., 2021). Children living with cerebral palsy in Nigeria frequently face additional challenges such as malnutrition, epilepsy, and communication disorders. Access to rehabilitation, therapy, and inclusive education is also limited, particularly in rural areas, intensifying caregiver burden.

Prevalence estimates vary widely depending on study design and location. For example, neurological diseases accounted for 6.7% of all pediatric cases in Port Harcourt, with cerebral palsy representing a major cause of chronic morbidity (Frank-Briggs et al., 2011). A population-based study in Cross River State estimated cerebral palsy prevalence at 2.3 per 1,000 children aged 4–15 years using key informant methodology (Agho et al., 2020). By contrast, hospital-based studies often report higher prevalence due to the concentration of severe cases. In Port Harcourt, cerebral palsy accounted for 47.6% of children attending neurology clinics (Awoala & Chinweokwu, 2020), which is comparable to the 50.3% reported in Sagamu (Ogunseli et al., 2008), but far higher than the 16.0% and 16.2% reported in Enugu (Izuora & Iloeje, 1989). Other studies found cerebral palsy to be the second most common neurological disorder after seizure disorders in Port Harcourt (West & Onubogu, 2019) and Ibadan (Lagunju & Okafor, 2009). Similarly, a retrospective review in Kano revealed that 42.4% of children with neurological disorders had

cerebral palsy (Hamzat & Mordi, 2007), while in Sagamu, 50.3% of pediatric neurology clinic attendees were diagnosed with cerebral palsy (Adewumi et al., 2009).

Much of the existing literature on cerebral palsy has emphasized physical aspects such as motor impairments, rehabilitation strategies, and assistive devices. Although these clinical studies provide important medical insights, they rarely explore how adolescents cope with the psychological and social dimensions of living with the condition (Rok-Bujko & Kawecka, 2023). In Nigeria, most research has focused on rehabilitation, caregiver stress, and mobility challenges (Abdulganiyu et al., 2022), while relatively little is known about the emotional well-being of adolescents themselves.

Adolescence is a critical developmental stage involving identity formation, peer relationships, and increasing independence (Sawyer et al., 2012). For adolescents with cerebral palsy, these transitions are often hindered by social exclusion, bullying, low self-esteem, and vulnerability to depression and behavioral disorders (Rudebeck, 2020; Bjørngaas et al., 2012). While international evidence highlights these risks, research in sub-Saharan Africa rarely examines these issues from the perspectives of adolescents themselves. Most studies rely on caregiver reports or quantitative surveys, which risk overlooking the lived experiences of young people (Mitra et al., 2013).

In Nigeria, adolescents with cerebral palsy face multiple psychosocial stressors, including stigma, peer rejection, and barriers to inclusive education (Carlson et al., 2013; Shikako-Thomas et al., 2009). In settings like Ibadan, these problems are compounded by limited mental health services, entrenched cultural misconceptions about disability, and weak policy frameworks on adolescent health (Gureje et al., 2015; Ogunlana et al., 2019). Despite this, Nigerian research remains focused primarily on caregiver perspectives and physical health outcomes, leaving psychological dimensions underexplored. This gap underscores the need for community-based, qualitative studies that prioritize the voices of adolescents and examine their mental health and psychosocial needs.

Addressing this gap is essential, as understanding the internal emotional world of adolescents with cerebral palsy is key to developing effective psychosocial interventions. Qualitative approaches that center adolescents' voices can illuminate the sociocultural and contextual factors shaping their mental health. Considering the critical shortage and stigmatization of mental health services in Nigeria (Gureje et al., 2015), there is an urgent need for research that informs inclusive, community-driven

strategies. This study therefore seeks to explore the hidden psychological struggles of adolescents with cerebral palsy in Ibadan, Nigeria, using the biopsychosocial model as a guiding framework.

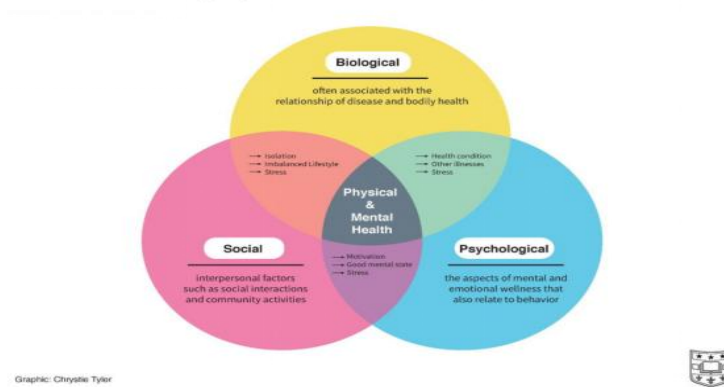
The biopsychosocial model provides a valuable perspective for understanding the psychological difficulties of adolescents with cerebral palsy because it highlights the interplay between biological, psychological, and social influences (Engel, 1977). Biologically, adolescents often contend with motor impairments, chronic pain, epilepsy, and other comorbidities, which can reduce independence and quality of life, while increasing risk of frustration and emotional distress (Novak et al., 2020; Bjorgaas et al., 2021; Harvey et al., 2024).

Psychologically, adolescence is a time of self-discovery and growing autonomy. For adolescents with cerebral palsy, these processes are disrupted by disability-related barriers, making them more susceptible to low self-esteem, depression, and anxiety. Their coping strategies and self-perceptions strongly influence their psychological outcomes (Alriksson-Schmidt et al., 2021).

Socially, adolescents with cerebral palsy in Nigeria and other low- and middle-income countries frequently experience stigma, discrimination, and exclusion from education and peer networks (Ogunlana et al., 2019; Zuurmond et al., 2019). Limited access to inclusive education and mental health services exacerbates these risks (Adewumi et al., 2021). On the other hand, strong family support, positive peer relationships, and inclusive community attitudes have been shown to buffer against poor psychosocial outcomes (Umeadi et al., 2020; Carlon et al., 2021).

Taken together, these findings suggest that the psychological challenges of adolescents with cerebral palsy in Ibadan cannot be explained solely by their physical impairments. Instead, they result from the combined influences of biological conditions, psychological coping, and sociocultural environments making the biopsychosocial model a critical tool for both understanding and addressing their needs.

Biopsychosocial (BPS) model



Materials and Methods

Study Area: The study was carried out in Cheshire High school in Ibadan, a city located in southwestern Nigeria. The school was selected because it has the highest number of adolescents with cerebral palsy who can communicate and attend school in Ibadan. The school comprises adolescents from various socio-economic classes. Christianity and Islam are the dominant religions. The school is one of the few specialized institutions in Oyo State dedicated to the education and care of children and adolescents with physical and developmental disabilities. This makes it a concentrated setting where a significant number of adolescents with CP can be accessed within one location, thereby ensuring a representative sample for qualitative exploration. The school offers both academic and rehabilitative services, exposing students to not only classroom learning but also therapy and social integration activities. This dual focus creates an important context to study how adolescents with CP experience and cope with challenges related to identity, peer relationships, and stigma within both academic and social domains.

Study Design and Participants

A qualitative, exploratory design using focus group discussion and key informant interviews was adopted to gather a lived experience of the psychological experiences of adolescents with cerebral palsy. The group discussion consists of ten adolescents (3 females, 7 males) aged between 14 and 23 years (with the mean age of 18.3 and standard deviation of 2.57), diagnosed with various forms of cerebral palsy, were recruited through snowballing sampling with the help of a school teacher from Cheshire High school in Ibadan. The key informants are the teachers of the participants. Inclusion criteria included cognitive ability to engage in verbal conversation and willingness to participate.

Data Collection

Semi-structured interviews were conducted in English, depending on participant's preference. Each interview lasted 30–45 minutes and was conducted in a private, accessible location. Interviews focused on emotional experiences, peer relationships, academic performance, and self-perception.

Data Analysis

Interviews were audio-recorded, transcribed verbatim, and analyzed thematically following Braun and Clarke's six-phase framework. Initial coding was done manually, and themes were reviewed and refined through peer debriefing sessions.

Ethical Considerations

The study protocol was approved with UI/EC/23/0561 by the University College Hospital Research Ethics Committee. Each adolescent provided assent (for those less than 18 years) and consent (for the 18 years old) before participation in the research and permission was obtained from the school authority. The names of the adolescents were not used throughout the discussion.

Results

The following themes and subthemes were obtained from the data.

- Lack of Awareness and Understanding of Cerebral Palsy
- Emotional Distress and Low Self-esteem Due to Disability
- Experiences with Peer Relationships
- Academic Barriers Due to Physical Limitations
- Family Support
- Psychological Burdens : Internal and External Stigmatization
- Sexual Vulnerability and Emotional Dependence

Lack of Awareness and Understanding of Cerebral Palsy

All participants admitted they don't know what cerebral palsy is. "*All of them don't know about it*". This indicates a significant gap in disability education even among

those directly affected. The lack of knowledge can contribute to misunderstandings, shame, and low self-advocacy.

Emotional Distress and Low Self-Esteem Due to Disability

Participants frequently mention feeling bad, inferior, or frustrated due to physical limitations and educational setbacks. Changes in class placement (from science to arts) are seen as humiliating or demoralizing. *"I feel bad with my condition..." "I was taken to Art class.... I really feel bad", "I always feel bad when others are writing and I cannot".*

There is a strong sense of loss, inferiority, and psychological distress due to exclusion from typical academic and social milestones.

Experiences with Peer Relationships

Some participants describe positive peer interactions, while others feel isolated. *"My friends love me and play with me" "They don't play with me and I'm always lonely"* Peer support is uneven. While some experience inclusion, others are socially marginalized, exacerbating their feelings of loneliness and low self-worth.

Academic Barriers Due to Physical Limitations

Participants report being moved to different academic tracks, having difficulty writing, and being unable to participate in class. *"I couldn't write well and I can't mix chemicals."*

"I felt very bad because it hinders what I can do."

Family Support

Some participants express appreciation for supportive families. Others, describe abuse or misunderstanding from parents. *"My mummy always beat me saying 'you cannot walk.'" The home environment can either be a source of emotional resilience or psychological trauma. This reflects a lack of parent education or societal stigma influencing family behavior.*

Psychological Burdens : Internal and External Stigmatization

KII Insights:

Adolescents may feel inferior, have low self-worth, and believe they are being punished or rejected by society. Physical symptoms (e.g., drooling, jerky movements, distorted speech) are socially stigmatizing. *"They don't accept their fate... feel something caused their condition." "They believe they cannot go beyond a certain*

stage.” There is a complex interplay of internalized stigma, societal exclusion, and lack of psychological coping mechanisms.

Sexual Vulnerability and Emotional Dependence

KII Insights:

Adolescents with cerebral palsy are emotionally dependent on any romantic interest, making them vulnerable to exploitation. Sexual urges are not well-managed, potentially leading to immoral behavior or emotional harm. *“Once they are exposed to a relationship, they don’t get detached from it...”* This highlights a need for comprehensive sex education, psychological guidance, and social-emotional skill-building for adolescents with disabilities.

Participant Demographics

Participant	Age	Gender	Class	Religion
1.	18	Male	JSS 3	Islam
2.	20	Male	SSS2	Christian
3.	19	Female	SSS2	Christian
4.	20	Female	SSS1	Muslim
5.	20	Male	JSS 3	Christian
6.	15	Male	JSS2	Islam
7.	14	Male	SSS1	Christian
8.	18	Female	SSS2	Islam
9.	23	Male	SSS3	Christian
10.	16	Male	JSS3	Christian

Discussion

This study explored the lived experiences of adolescents with cerebral palsy within an educational and psychosocial context. The thematic analysis revealed multiple intersecting challenges ranging from a lack of disability awareness to emotional struggles, academic limitations, social isolation, and inconsistent family support. One of the most significant findings was that none of the adolescents interviewed had any understanding of cerebral palsy, despite experiencing the condition firsthand. This reflects a concerning absence of disability-related education in schools and communities. A lack of awareness contributes to helplessness and hinders self-advocacy (Huang et al., 2018). Without foundational knowledge of their condition, adolescents may internalize feelings of confusion or shame, further complicating their identity development.

Participants frequently expressed feelings of sadness, frustration, and inferiority due to their physical limitations and exclusion from mainstream academic tracks. Being moved from science classes to arts, or being unable to complete tasks like writing, led many to perceive themselves as less capable. These emotional responses reflect what Rok-Bujko and Kawecka (2023) describe as the neurodevelopmental burden of cerebral palsy, which often includes low self-esteem and psychological vulnerability. Inferiority complex, as described in the key informant interviews, was a recurring emotional challenge. Adolescents questioned the cause of their condition, sometimes attributing it to parental wrongdoing or divine punishment—echoing patterns of internalized stigma identified by Koller et al. (2018), who emphasized that children with disabilities often experience psychological exclusion and self-blame.

The study revealed mixed experiences in peer relationships. While some adolescents reported feeling accepted and loved by their peers, others described feeling rejected or ignored, leading to loneliness. Social exclusion appeared to worsen their emotional condition, reinforcing the sense of “otherness.” As Cooper et al. (2023) argue, social participation for individuals with cerebral palsy is essential for psychological development, yet often obstructed by physical or communicative limitations. Speech impairment, difficulty initiating conversations, and the fear of ridicule further isolated many participants. These findings support Koller et al.’s (2018) definition of social inclusion, which involves more than mere presence in social settings—it requires meaningful interaction and emotional safety.

The academic limitations reported in this study were largely due to physical impairments, especially difficulties in writing and engaging in practical subjects. Several participants were reassigned from science to art classes, not because of intellectual inability, but because of physical constraints. This reflects what the second key informant described as a disconnect between cognitive ability and psychomotor execution. According to Rok-Bujko and Kawecka (2023), adolescents with cerebral palsy may have intact cognitive functioning but struggle with the psychomotor domain, such as handwriting, lab activities, and note-taking. Without proper accommodations, these students face lowered academic expectations and misjudgment from teachers who are not trained in special education. This reinforces the need for inclusive pedagogical strategies and alternative assessment methods.

Family responses were varied. While some adolescents praised their families for emotional and material support, others described negative experiences, including physical abuse and emotional neglect. For instance, one participant reported being beaten by her mother for her inability to walk—a reaction that may reflect parental frustration, denial, or societal stigma (Odeyale, 2024). Family dynamics play a crucial

role in the emotional development of children with disabilities. Positive family involvement, as highlighted by Yang et al. (2023), can significantly enhance resilience and self-esteem. Conversely, negative home environments can worsen psychological symptoms and delay social integration. Key informants noted that some adolescents with cerebral palsy are emotionally dependent on romantic partners, seeing them as the only individuals who accept them unconditionally. This emotional dependence may expose them to exploitation or abuse. The participants' inability to manage emotional boundaries and romantic expectations reflects findings by Cooper et al. (2023), who argue that adolescents with disabilities often lack appropriate sexual education and emotional literacy, putting them at risk of harmful relationships. This calls for targeted sexual and relationship education designed to address the specific emotional and social realities faced by adolescents with physical disabilities.

Despite these challenges, some individuals with cerebral palsy demonstrate remarkable resilience. The testimony of an adult key informant, who successfully pursued education despite severe physical limitations, underscores the importance of self-acceptance, personal goal-setting, and self-paced learning. This supports findings by Yang et al. (2023), who highlight the role of self-efficacy and intrinsic motivation in promoting psychological well-being among adolescents with disabilities.

Conclusion

This study has highlighted the multifaceted challenges faced by adolescents with cerebral palsy in Ibadan, particularly within educational and psychosocial settings. Beyond their physical impairments, these adolescents experience significant emotional distress, academic limitations, social exclusion, and inconsistent family support. A major concern revealed by the study is the widespread lack of awareness among adolescents about their condition, with none of the participants showing a clear understanding of cerebral palsy. This lack of knowledge contributes to confusion, helplessness, and internalized stigma factors that can severely impact identity development and emotional well-being. Participants frequently expressed feelings of sadness, inferiority, and rejection, which were closely tied to their inability to participate fully in school and social life. Many were removed from academic tracks not due to cognitive deficits, but because of physical limitations that hindered writing and class participation. Without appropriate accommodations or teacher training in special education, their academic potential is often misjudged. In addition, poor communication skills, distorted speech, and fears of being mocked further isolate them from peers, deepening emotional wounds. The role of family and social relationships was also complex. While some adolescents benefited from

supportive family environments, others faced emotional neglect or abuse. Many developed intense emotional dependence on romantic partners, seeing them as their only source of acceptance placing them at risk of exploitation due to a lack of emotional literacy and appropriate guidance. These findings underscore an urgent need for psychological intervention as a core component of managing adolescents with cerebral palsy in Ibadan. Psychological support services such as counseling, emotional education, peer support programs, and family therapy are essential for helping these adolescents build self-esteem, cope with stigma, and develop healthy social relationships. Given that psychological well-being is just as critical as physical care, integrating mental health support into schools, hospitals, and community-based programs will ensure more holistic and effective care. Only through such inclusive and multi-dimensional approaches can adolescents with cerebral palsy be empowered to reach their full potential and have fulfilling lives.

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REFERENCES

- Abate, M., Abiye, H., & Worku, D. K. (2024). Prevalence and factors associated with cerebral palsy in low-income settings: A systematic review. *BioMed Central Pediatrics*, 24(1), Article 100. <https://doi.org/10.1186/s12887-024-04059->
- Abdulganiyu, H., Odebiyi, D. O., & Shonekan, A. (2022). Barriers to physical rehabilitation among children with cerebral palsy in Nigeria: A caregiver's perspective. *African Journal of Disability*, 11, 1–10. <https://doi.org/10.4102/ajod.v11i0.981>
- Adewumi, A., Ogundeyi, M., Ogunfowora, O. B., & Olowu, A. O. (2009). Pattern of neurological disorders in children attending the neurology clinic of a tertiary hospital in Nigeria. *Nigerian Journal of Paediatrics*, 36(3), 101–106.
- Adewumi, T., Oloniniyi, I., & Oginni, O. (2021). Barriers to mental health care for children and adolescents in Nigeria. *The Lancet Psychiatry*, 8(9), 747–749. [https://doi.org/10.1016/S2215-0366\(21\)00216-5](https://doi.org/10.1016/S2215-0366(21)00216-5)
- Agho, K., Okoro, E., & Ogunlesi, T. (2020). Population-based prevalence of cerebral palsy in Cross River State, Nigeria: Findings from a key informant survey.

BioMed Central Neurology, 20(1), Article 241.
<https://doi.org/10.1186/s12883-020-01837-z>

Alriksson-Schmidt, A., Arnaud, C., Beckung, E., Michelsen, S. I., Parkes, J., Parkinson, K., ... & Dickinson, H. O. (2021). Self-concept and mental health in adolescents with cerebral palsy. *Child: Care, Health & Development*.
<https://doi.org/10.1111/cch.12872>

Awoala, D. E., & Chinweokwu, E. (2020). Childhood neurological disorders in a tertiary hospital in Port Harcourt, Nigeria: Pattern and prevalence. *International Journal of Pediatrics and Adolescent Medicine*, 7(4), 143–149.

Bjorgaas, H. M., Elgen, I., Boe, T., & Hysing, M. (2012). Mental health in children with cerebral palsy: Does screening capture the complexity? *European Journal of Paediatric Neurology*, 16(1), 35–40.
<https://doi.org/10.1016/j.ejpn.2011.06.005>

Carlson, S., Shields, N., Yong, K., Gilmore, R., Sakzewski, L., & Boyd, R. (2013). A systematic review of the psychometric properties of quality of life measures for school-aged children with cerebral palsy. *BioMed Central Pediatrics*, 13(1), Article 50. <https://doi.org/10.1186/1471-2431-13-50>

Cooper, K., Linden, M. A., & Kerr, C. (2023). Social participation and quality of life in adolescents with cerebral palsy: A critical review of influencing factors. *Disability and Rehabilitation*, 45(4), 512–524.
<https://doi.org/10.1080/09638288.2021.1950683>

Ebigbo, P. (2013). Stigma of mental illness and care in Nigeria: A review. *Nigerian Journal of Clinical Psychology*, 10(1), 1–13.

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129–136. <https://doi.org/10.1126/science.847460>

Frank-Briggs, A. I., Alikor, E. A. D., & Wariowei, B. B. (2011). Pattern of pediatric neurological disorders in Port Harcourt, Nigeria. *International Journal of Pediatrics*, 2011, Article 698703. <https://doi.org/10.1155/2011/698703>

Graham, H. K., Rosenbaum, P., Paneth, N., Dan, B., Lin, J. P., Damiano, D. L., ... & Lieber, R. L. (2015). Cerebral palsy. *Nature Reviews Disease Primers*, 1, Article 15082.
<https://doi.org/10.1038/nrdp.2015.82>

- Gureje, O., Lasebikan, V. O., Ephraim-Oluwanuga, O., Olley, B. O., & Kola, L. (2015). Community study of knowledge of and attitude to mental illness in Nigeria. *The British Journal of Psychiatry*, *186*(5), 436–441. <https://doi.org/10.1192/bjp.186.5.436>
- Hamzat, T. K., & Mordi, E. L. (2007). Cerebral palsy in Nigerian children: A retrospective analysis of referral profile and rehabilitation needs. *African Journal of Neurological Sciences*, *26*(1), 1–6.
- Harvey, A., Alriksson-Schmidt, A., Hägglund, G., McCoy, A., & Lundh, U. (2024). Chronic pain in children and young people with cerebral palsy: A narrative review. *BioMed Central Pediatrics Medicine*, *22*(1), 115. <https://doi.org/10.1186/s12916-024-03212-y>
- Huang, Y., Guo, N., Wang, S., & Luo, M. (2018). Disability awareness, self-efficacy, and self-advocacy in adolescents with physical disabilities: A cross-sectional study. *Child: Care, Health & Development*, *44*(4), 537–543. <https://doi.org/10.1111/cch.12568>
- Izuora, G. I., & Iloeje, S. O. (1989). A review of cerebral palsy in Enugu, Nigeria. *Annals of Tropical Paediatrics*, *9*(3), 125–128.
- Jahnsen, R., Villien, L., Egeland, T., Stanghelle, J. K., & Holm, I. (2003). Participation and quality of life in adolescents with cerebral palsy. *Spine*, *28*(20), 177–184.
- Koller, D., Le Pouesard, M., & Rummens, J. A. (2018). Defining social inclusion for children with disabilities: A critical literature review. *Children & Society*, *32*(1), 1–13. <https://doi.org/10.1111/chso.12223>
- Lagunju, I. A., & Okafor, O. O. (2009). An analysis of disorders seen at the pediatric neurology clinic, University College Hospital, Ibadan, Nigeria. *West African Journal of Medicine*, *28*(5), 313–316.
- McDougall, J., Wright, V., & DeWit, D. (2016). The role of self-determination in promoting the quality of life of adolescents with cerebral palsy: A structural equation model. *Research in Developmental Disabilities*, *49–50*, 40–53. <https://doi.org/10.1016/j.ridd.2015.11.009>
- Mitra, S., Posarac, A., & Vick, B. (2013). Disability and poverty in developing countries: A multidimensional study. *World Development*, *41*, 1–18. <https://doi.org/10.1016/j.worlddev.2012.05.024>

- Mitra, S., Posarac, A., & Vick, B. (2013). Disability and poverty in developing countries: A multidimensional study. *World Development*, 41, 1–18. <https://doi.org/10.1016/j.worlddev.2012.05.024>
- Odeyale, B. A. (2024). Parenting stress and coping in families of children with cerebral palsy in Nigeria: A qualitative study. *African Journal of Developmental Studies*, 14(1), 56–68.
- Ogunseli, A., Ogundeyi, M., Ogunfowora, O., & Olowu, A. (2008). Pattern of pediatric neurological disorders in Sagamu, Nigeria. *Nigerian Journal of Paediatrics*, 35(1), 15–19.
- Ogunlana, B. O., Abikoye, G. E., & Adekeye, O. (2019). Quality of life and psychosocial issues in Nigerian children with cerebral palsy. *Nigerian Journal of Clinical Practice*, 22(9), 1250–1257. https://doi.org/10.4103/njcp.njcp_123_19
- Ogunlana, M. O., Oduguwa, O. A., & Fashina, T. (2019). Disability, culture, and access to inclusive education in Nigeria: Barriers and strategies. *Journal of Inclusive Education*, 6(2), 23–34.
- Palisano, R., Almarsi, N., Chiarello, L., Orlin, M., Bagley, A., & Maggs, J. (2012). Family needs of parents of children and youth with cerebral palsy. *Child: Care, Health & Development*, 36(1), 85–92. <https://doi.org/10.1111/j.1365-2214.2009.01027.x>
- Rok-Bujko, P., & Kawecka, A. (2023). Psychosocial functioning of adolescents with cerebral palsy: A narrative review. *Disability and Health Journal*, 16(1), Article 101427. <https://doi.org/10.1016/j.dhjo.2022.101427>
- Rosenbaum, P., Paneth, N., Leviton, A., Goldstein, M., Bax, M., Damiano, D., ... & Jacobsson, B. (2007). A report: The definition and classification of cerebral palsy April 2006. *Developmental Medicine & Child Neurology*, 49, 8–14. <https://doi.org/10.1111/j.1469-8749.2007.tb12610.x>
- Rudebeck, C. (2020). Mental health in adolescents with cerebral palsy: A clinical perspective. *Scandinavian Journal of Disability Research*, 22(1), 194–202. <https://doi.org/10.16993/sjdr.702>
- Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S.-J., Dick, B., Ezeh, A. C., & Patton, G. C. (2012). Adolescence: A foundation for future health. *The Lancet*, 379(9826), 1630–1640. [https://doi.org/10.1016/S0140-6736\(12\)60072-5](https://doi.org/10.1016/S0140-6736(12)60072-5)



- Shikako-Thomas, K., Shevell, M., Lach, L., Law, M., Schmitz, N., Poulin, C., & Rosenbaum, P. (2009). Picture me playing—A portrait of participation and enjoyment of leisure activities in adolescents with cerebral palsy. *Research in Developmental Disabilities, 30*(7), 1343–1355. <https://doi.org/10.1016/j.ridd.2009.06.002>
- Umeadi, B., Ede, M. O., & Okafor, I. (2020). Family support and psychosocial outcomes of children with disabilities in Nigeria. *African Journal of Social Work, 10*(2), 45–56. <https://doi.org/10.4314/ajsw.v10i2.5>
- Yang, L., Zhang, Y., & Wang, L. (2023). Family functioning and resilience among adolescents with disabilities: The mediating role of self-efficacy. *International Journal of Disability, Development and Education, 70*(1), 17–33. <https://doi.org/10.1080/1034912X.2020.1841409>
- Zuurmond, M., O'Banion, D., Gladstone, M., Carslake, R., Kerac, M., Baltussen, M., ... & Kuper, H. (2019). The impact of disability on child health and development in sub-Saharan Africa. *International Health, 11*(3), 237–247. <https://doi.org/10.1093/inthealth/ihz020>