



## INFLUENCE OF ATTITUDE AND CULTURE ON QUALITY OF LIFE OF POLIO SURVIVORS IN NIGERIA

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### ABSTRACT

As in most low and middle-income countries, persons with disabilities in Nigeria experience various forms of social and attitudinal barriers that may adversely affect almost all aspects of their life. These barriers often stem from harmful traditional and cultural practices toward disability and persons with disabilities. Social and attitudinal barriers reported in Nigeria include stigmatization, discrimination, and physical and sexual abuse. Consequences of social and attitudinal barriers are likely to marginalize and exclude persons with disabilities from participating in mainstream life. The overall effect of participation restriction, stigmatization, and discrimination could undermine the wellbeing and quality of life of persons with disabilities including polio survivors. This article discusses how socio-cultural attitudes and beliefs of Nigerians toward physical disability may influence the perception of quality of life among polio survivors in Nigeria.

**Keywords:** Cultural belief, Wellbeing, Quality of life, People with disabilities, Nigeria

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### INTRODUCTION

Globally, persons with disabilities (PWDs) including paralytic polio survivors, experience various forms of discrimination and social stigma that may influence how they perceive their quality of life (World Health Organization, 2011). Evidence has shown a negative association between internalized stigma and quality of life among individuals with physical disability (Silván-Ferrero *et al.*, 2020). Moreover, the ripple effect of discrimination and stigma has a negative impact not only on PWDs but their families as well. For instance, the literature reported that internalized stigma decreases quality of life among family members of individuals with mental impairments (Zhang *et al.*, 2018). Hence, assessing the impact of discrimination and stigma on quality of life can be useful in developing an evidence-based intervention for PWDs. Moreover, it could also provide a pool of scientific information needed to buttress awareness campaigns against stigma, discrimination, and other negative cultural practices (Gondek *et al.*, 2017). Thus, understanding the influence of discrimination and stigma on the quality of life of polio survivors is crucial to eliminating physical

and social barriers and creating an enabling environment for polio survivors and PWDs at large (Omoniyi, 2014).

The global polio eradication campaign has resulted in almost complete interruption of polio transmission globally, especially in Europe, America, and Western Pacific. Currently, polio remains endemic in only two countries, Afghanistan and Pakistan (Ganapathiraju *et al.*, 2015; World Health Organization, 2016b, 2016a). More than 20 million people were disabled by paralytic polio globally, with over one million living in Africa (Groce *et al.*, 2014). Nigeria was removed from polio-endemic countries in 2015 by the World Health Organization (World Health Organization, 2016a). Nigeria is likely to have a significant proportion of polio survivors in Africa, given that it was the last country to interrupt polio transmission in the WHO Africa region (World Health Organization, 2016a). Socio-cultural and political barriers significantly contributed to the prolongation of the polio eradication campaign in Nigeria. Reluctance and scepticism due to certain socio-cultural beliefs among communities were some of the main barriers that hindered the eradication campaign in Nigeria (Ganapathiraju *et al.*, 2015). The literature estimated that there are





approximately 15 polio survivors per 100,000 people in Nigeria (Jones *et al.*, 2017).

As Nigeria is celebrating the eradication of the wild poliovirus, we believed it is likely that perceptions and the controversies surrounding the polio epidemic and eradication have resulted in the deepening of negative biases, stigma, and marginalization of polio survivors with a profound impact on their quality of life. In this article, we will highlight the quality of life among polio survivors in Nigeria and cultural beliefs and attitudes of Nigerians toward disability, to demonstrate how attitudes and cultural beliefs of Nigerians toward disability may influence the perception of quality of life among polio survivors in Nigeria.

### QUALITY OF LIFE AMONG POLIO SURVIVORS IN NIGERIA

Evidence from studies conducted in other countries has shown that polio survivors frequently report poor quality of life compared to the general population (Garip *et al.*, 2017; Jacob & Shapira, 2010; Kling *et al.*, 2000; Shiri *et al.*, 2012; Yang *et al.*, 2015). The literature reported a significant positive correlation between polio survivors perceived quality of life and health status, health promoting behaviours, physical function, personal relationship, family role, positive attitude toward disability, employment, hope, coping, self-efficacy, and life purpose (Harrison & Stuijbergen, 2006; Jacob & Shapira, 2010; Kemp & Krause, 1999; Stuijbergen *et al.*, 2005). Besides, evidence has shown a significant negative correlation between polio survivors perceived quality of life and age, duration of impairment, functional limitation, impaired mental health, comorbidities, and physical and social barriers (Harrison & Stuijbergen, 2006; Kling *et al.*, 2000; Stuijbergen *et al.*, 2005). Moreover, the literature reported that gender, health status, health promoting behaviours, mental function, physical function, occupation, hope, availability of resources, physical and social barriers were significant predictors of quality of life among polio survivors (Shiri *et al.*, 2012; Stuijbergen *et al.*, 2005; Yang *et al.*, 2015). It is evident from these findings that cultural beliefs and attitudes toward disability play a significant role in shaping the perception of quality of life among polio survivors.

Quality of life of polio survivors in Nigeria is poorly reported in literature. In a couple of studies, Kaka and colleagues (Kaka *et al.*, 2011) evaluated quality of life and

examined its association with occupational and educational levels among polio survivors in north-western Nigeria. They reported no significant difference in the perceived quality of life scores across occupational and educational levels. Moreover, the study concluded that gender, occupational status and level of education have no significant influence on the individuals' perceived quality of life (Kaka *et al.*, 2011). Although interesting, the study did not compare quality of life between general population and polio survivors, thus no tangible conclusion can be drawn from the study. Besides, Adegoke and colleagues (Adegoke *et al.*, 2012) analysed the quality of life of adolescent polio survivors in southwest Nigeria. The study found that the overall objective quality of life score of polio survivors is significantly lower than their overall subjective score. Additionally, the overall objective and subjective scores of the individuals are significantly lower than that of non-disabled cohorts. In both the subjective and objective axes, polio survivors scored significantly lower than cohorts without disability, especially in the domains of health, productivity, community involvement, and emotion (Adegoke *et al.*, 2012). The current evidence is insufficient to draw any plausible conclusions on how societal attitudes and beliefs toward disability influence polio survivors' perception of their quality of life. However, it can be implied that cultural beliefs and attitudes toward disability played a vital role on how polio survivors perceived their quality of life poorly, especially in the domains of community involvement, productivity, and emotions.

### CULTURAL BELIEFS AND ATTITUDES OF NIGERIANS TOWARD DISABILITY

A plethora of cultural beliefs that may result in negative attitudes toward persons with disability have been reported in the literature, specifically in the context of Africa in general and Nigeria in particular (Eskay *et al.*, 2012; Etieyibo & Omiegbe, 2016; Koszela, 2013; Munyi, 2012). Historic evidence has revealed that in some part of East Africa, persons with physical disabilities were perceived as pacifiers of evil spirits, and therefore care was taken not to harm them (Munyi, 2012). In some parts of West Africa, children born with physical anomalies were seen as protected by supernatural forces, and therefore they were accepted in the community because they were believed to bring good fortunes. However, in other West African tribal cultures like the Igbo people of eastern Nigeria, treatment of persons with disability varied from pampering to total rejection (Munyi, 2012). In Ghana for





example, some traditional beliefs debarred men with physical disability from becoming chiefs. While in other cultures, children with obvious physical deviations were rejected and some were even killed in extreme circumstances (Munyi, 2012). Over the years, cultural perceptions toward disability have varied significantly from one community to another and they are neither homogeneous nor static (Eskay *et al.*, 2012; Koszela, 2013; Munyi, 2012). Although many changes have taken place in culture and attitude toward persons with disabilities, the remnants of past cultural beliefs influence the present day practices affecting such group (Eskay *et al.*, 2012; Munyi, 2012).

Cultural beliefs and attitudes toward physical disability reported from Nigeria are likely to be related to the following: lack of understanding and awareness of disability, misconceptions concerning the causes of disability, ill-informed and insensitive media coverage that perpetuates negative views about disability, and reinforcement of prejudice and fears through policies that may affirm harmful beliefs about disability (United Nations, 2012). In relation to the lack of understanding and awareness of disability, some cultures in Nigeria view disability as a curse and a punishment. In this case, people with disability are construed as serving a retribution for the sins committed either by themselves or their forefathers and are therefore labelled as social outcasts and hopeless (Etieyibo & Omiegbe, 2016). However, in relation to the misconceptions concerning the causes of disability, some cultures attribute disability to witchcraft, juju, and other supernatural forces (Etieyibo & Omiegbe, 2016). For example, paralytic polio is still seen as a spiritual affliction by a spirit called “Inna” in some villages in northern Nigeria (Renne, 2012).

The media also plays a vital role in perpetuating negative attitudes and beliefs about disability. Ogundola (Ogundola, 2013) examined how the media outlets in Nigeria framed disability and issues relating to persons with disability, with the aim of understanding how this may impact society’s perception of disability. He found that media outlets in both the northern and southern parts of Nigeria often employ stereotypically offensive language when reporting disability stories. They typically employ frames that emphasize frailty, charity, disparity and derogatory labels (Ogundola, 2013). In relation to policy, Lang and Upah (Lang & Upah, 2008) reported that besides the persons with disability decree of 1993 which has not yet come into full effect, there is no robust legislation

safeguarding the right of persons with disability in Nigeria. However, there is hope with the recent passage of the Discrimination against Persons with Disabilities (Prohibition) Act of 2018 by the Federal Government of Nigeria (Discrimination against Persons with Disabilities (Prohibition) Act of Nigeria, 2019).

Reporting on religion, culture, and discrimination against persons with disability in Nigeria, Etieyibo and Omiegbe (Etieyibo & Omiegbe, 2016) highlighted some discriminatory practices that are perpetuated by culture. These include trafficking and killing of people with physical and mental disability for ritual purposes, sexual abuse of women with disability for magical power, and employing of children with disability for alms begging in the street. These negative cultural and attitudinal practices segregate and marginalize persons with disability from the contemporary social life. However, with urbanization, some positive attitudinal practices are also evident. A study of disability knowledge and attitude among university students has shown that a greater percentage of university students have a good knowledge of disability and also have a positive attitude toward PWDs. However, a majority had little contact with PWDs (Olaoye *et al.*, 2017). The absence of contact with PWDs can be implied as a form of social marginalization experienced by PWD even among educated people. Close family relations were also not shielded from discriminatory attitudes. A study has found that male parents exhibit more favourable attitude toward male children with disability than female parents in Nigeria, however the female parents demonstrated over-protection and acceptance compared to male parents (Omoniyi, 2014).

Ogwumike et al (Ogwumike *et al.*, 2012) investigated the knowledge, attitudes, and beliefs of parents and primary caregivers of children affected with paralytic polio in northwest Nigeria. They found that majority of these individuals reported good knowledge of paralytic polio and showed a positive attitude toward children with paralytic polio. They concluded that most parents showed a reasonable belief over the cause of their children’s condition rather than the wrongful traditional belief that paralytic polio is caused by a female spirit called “Inna” in Hausa language (Ogwumike *et al.*, 2012). In addition, it is reported that cultural belief on the consequences of disability in northern Nigeria has shifted away from the wide spread belief of “bori” spirits associated with traditional religious practices, toward a holistic Islamic belief. The Islamic practices enjoined individuals to show





sympathy to persons with disability, women, children, as well as poor people (Renne, 2013). However, this view may relate to a particular way of addressing disability; for example, giving alms to those who are less fortunate. Overall, there is a little appreciation that disability issues are fundamentally rooted in human right within a contemporary Nigerian society. The common perception, held by stakeholders, policymakers, and the general public is that disability and persons with disability issues are viewed in terms of charity and welfare (Lang & Upah, 2008).

### **HOW ATTITUDES AND CULTURAL BELIEFS OF NIGERIANS TOWARD DISABILITY MIGHT INFLUENCE THE PERCEPTION OF QUALITY OF LIFE AMONG POLIO SURVIVORS IN NIGERIA**

Growing evidence has shown that quality of life is largely believed to be subjective (Post, 2014). However, literature has reported both subjective and objective aspects of quality of life (Brown, Bowling, & Flynn, 2004). Based on the integrative theory of quality of life described by Ventegodt et al (Ventegodt *et al.*, 2003), generic quality of life is conceived on a subjective-existential-objective spectrum. Subjective quality of life deals with how individuals value their life, based on the culture and value system in which they live. In this case, individuals appraise their quality of life by themselves. While the objective quality of life entails how individuals' life is perceived by an external observer. In this case, individuals' life is appraised by the external world, which is influence by the society's culture and value system. On the other hand, the existential quality of life deals with individuals' life at a deeper level. It entails how individuals balance the mind, body, and soul at a deeper level. It also represents the point where the subjective and objective aspects of life intersect (Ventegodt *et al.*, 2003). Based on this integrative theory of quality of life, individuals' generic quality of life consists of the subjective, objective, and existential dimensions. This section focuses on how attitudes and cultural beliefs of Nigerians toward physical disability may influence how polio survivors might perceive their subjective quality of life.

In common with the vast majority of low and middle-income countries, disabled people in Nigeria experience a range of attitudinal, institutional, and environmental barriers, which may hinder their active participation in mainstream society (Lang & Upah, 2008). Negative

cultural beliefs and attitudes toward disability impact on all aspects of life of PWDs, including the ability to access education, participate in non-exploitative work, live wherever and with whoever one chooses, marry and start a family, and move about freely within the community (United Nations, 2012). Depending on the type, nature, and extent of sociocultural and attitudinal barriers, paralytic polio survivors—a section of PWDs—may perceive their quality of life, based on how these cultural and attitudinal barriers interfere with their lives. For example, a study exploring the meaning of quality of life among polio survivors found that individuals commonly use terms associated with happiness and autonomy to describe what quality of life means to them. Some of these terms include; social support from family and friends, being able to do what you want, being independent, and feeling good physically and mentally (Atwal *et al.*, 2015). These conceptualizations reflect clearly how autonomy, participation, and social support—which are all dictated by cultural beliefs and attitudes—significantly influence the perception of quality of life among polio survivors. Therefore, it is paramount for stakeholders in disability research, practice, and policy to take into cognizance how sociocultural features of the physical and social environments may interfere with the daily life of polio survivors when devising intervention such as public services.

Evidence has shown that PWDs are prone to a high level of marginalization and social exclusion, even in comparison with other socially excluded groups (Lang & Upah, 2008). Negative attitudes may result in social exclusion and human rights violation, which may further fuel the poverty-disability cycle. These events may jeopardize the wellbeing of polio survivors and may likely lead to poor perception of quality of life. Societal attitudes and beliefs about disability are significant since they largely determine the extent to which the personal, social, educational, and psychological needs of PWDs might be realized (Munyi, 2012). Opportunities for PWDs are frequently limited as a result of social rejection, discrimination, physical barriers, and inaccessibility to public services (World Health Organization, 2011). In Nigeria, there is a dearth of affordable and appropriate services for PWDs both at the state and local levels (Lang & Upah, 2008). Additionally, there is a lack of political will from policy makers and other relevant stakeholders in prioritizing disability issues. In states where disability legislations exist, there are no effective monitoring and evaluation strategies to assess their utility (Lang & Upah,





2008). Both immediate and long-term effects of these adverse situations may lead to poor perception of quality of life among polio survivors in Nigeria. To address this situation, there is a need for all concerned stakeholders to intervene, lobby, and advocate for services that will create equal opportunities and promote self-reliance for PWDs including polio survivors.

Environmental barriers encountered by PWDs in Nigeria such as inaccessible public buildings, inaccessible transport systems, and lack of accessible information may play a vital role in determining how polio survivors might perceive their quality of life (Lang & Upah, 2008; Sango, 2013). These adverse environmental influences are likely to result in a poor perception of quality of life. On the other hand, institutional barriers such as lack of social protection, inadequate provision of medical and rehabilitation services, inaccessibility to mainstream public services—especially education—lack of access to microfinance, and lack of robust disability legislation may further undermine the wellbeing of polio survivors and other PWDs in Nigeria (Lang & Upah, 2008). These adverse events are likely to result in a poor perception of quality of life. There is an urgent need for the creation of enabling environment, by removing both institutional and environmental barriers that marginalized PWDs—including polio survivors—from full participation. This requires prompt action not only by public office holders but also by non-governmental organizations and community leaders at large.

Social and attitudinal barriers such as stigma, discrimination, and physical violence may affect how polio survivors might perceive their quality of life. Stigma refers to prejudicial attributes possessed by an individual or group of people, which can act as a barrier to PWDs exercising their right to full participation in society (Koszela, 2013). For polio survivors and other PWDs, stigma may lead to lowered self-esteem and social status within the community, which may result in subsequent life dissatisfaction and poor quality of life. Stigma could lead to discrimination against PWDs, their family members, or someone associated with them. As a result of stigma and discrimination, polio survivors are likely to experience social exclusion and maltreatment, which may result in a poor perception of quality of life. Moreover, physical violence and sexual abuse of PWDs may further jeopardize the wellbeing of polio survivors, which may lead to life dissatisfaction and poor quality of life (Etieyibo & Omiegebe, 2016; Munyi, 2012). Social and

attitudinal barriers can be addressed through public awareness on the right of PWDs, coupled with the creation of an inclusive environment through legislation and other relevant empowerment programs. Moreover, integrative community development programs could be considered.

## CONCLUSION

Consequences of harmful cultural beliefs and negative attitudes of Nigerians toward disability include discrimination, stigmatization, and physical and sexual abuse. These adverse outcomes are likely to restrict polio survivors and other PWDs from participating in mainstream life. The overall effect of these outcomes may result in life dissatisfaction with a subsequent poor perception of quality of life. Therefore, to create an enabling environment for polio survivors and other PWDs in Nigeria, there is a need to address harmful cultural beliefs and negative attitudes toward PWDs within the society. It is paramount for future investigations to focus on exploring how sociocultural practices might influence the perception of quality of life for polio survivors. Additionally, it is important to identify sociocultural practices that are likely to promote the quality of life of polio survivors and devise a strategy that will curb negative beliefs and social attitudes toward PWDs including polio survivors.

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## REFERENCES

- Adegoke, B. O. A., Oni, A. A., Gbiri, C. A. and Akosile, C. O. (2012). Paralytic poliomyelitis: Quality of life of adolescent survivors. *Hong Kong Physiotherapy Journal*, 30(2), 93–98.
- Atwal, A., Spiliotopoulou, G., Coleman, C., Harding, K., Quirke, C., Smith, N., ... Wilson, L. (2015). Polio survivors' perceptions of the meaning of quality of life and strategies used to promote participation in everyday activities. *Health Expectations*, 18(5), 715–726.
- Brown, J., Bowling, A. and Flynn, T. (2004). *Models of quality of life: a taxonomy, overview and systematic review of the literature. European Forum on Population Ageing Research*. <https://doi.org/10.1175/JAS3516.1>





Discrimination against Persons with Disabilities (Prohibition) Act of Nigeria. (2019). Discrimination against Persons with Disabilities (Prohibition) Act of 2018.

Eskay, M., Onu, V. C., Igbo, J. N., Obiyo, N., and Ugwuanyi, L. (2012). Disability Within the African Culture. *US-China Education Review*, 4, 473–484. Retrieved from <http://files.eric.ed.gov/fulltext/ED533575.pdf>

Etieyibo, E. and Omiegbe, O. (2016). Religion, culture, and discrimination against persons with disabilities in Nigeria. *African Journal of Disability*, 5(1), 1–6. <https://doi.org/10.4102/ajod.v5i1.192>

Ganapathiraju, P. V, Morssink, C. B. and Plumb, J. (2015). Endgame for polio eradication? Options for overcoming social and political factors in the progress to eradicating polio. *Global Public Health*, 10(4), 463–473.

Garip, Y., Eser, F., Bodur, H., Baskan, B., Sivas, F. and Yilmaz, O. (2017). Health related quality of life in Turkish polio survivors: Impact of post-polio on the health related quality of life in terms of functional status, severity of pain, fatigue, and social, and emotional functioning. *Revista Brasileira de Reumatologia*, 57(1), 1–7.

Gondek, T. M., Kotowicz, K. and Kiejna, A. (2017). The impact of stigma and discrimination on the quality of life and social disability in persons with a diagnosis of mental disorder. A pilot study. *European Psychiatry*, 41S(Supplement), s571.

Groce, N. E., Banks, L. M. and Stein, M. A. (2014). Surviving polio in a post-polio world. *Social Science and Medicine*, 107, 171–178.

Harrison, T. C. and Stuijbergen, A. K. (2006). Life purpose: Effect on Functional Decline and Quality of Life in Polio Survivors. *Rehabilitation Nursing*, 31(4), 149–154.

Jacob, T. and Shapira, A. (2010). Quality of life and health conditions reported from two postpolio clinics in Israel. *Journal of Rehabilitation Medicine*, 42(4), 377–379.

Jones, K. M., Balalla, S., Theadom, A., Jackman, G. and Feigin, V. L. (2017). A systematic review of the worldwide prevalence of survivors of poliomyelitis

reported in 31 studies. *BMJ Open*, (7), 1–9. <https://doi.org/10.1136/bmjopen-2016-015470>

Kaka, B., Ogwumike, O. and Adeniyi, A. F. (2011). Factors Associated with Health-related Quality of Life among Post-paralytic Polio Survivors in Nigeria. *AJPARS*, 3(1), 17–22.

Kemp, J. B. and Krause, J. S. (1999). Depression and life satisfaction among people ageing with post-polio and spinal cord injury. *Disability and Rehabilitation*, 21(5–6), 241–249.

Kling, C., Persson, A. and Gardulf, A. (2000). The health-related quality of life of patients suffering from the late effects of polio (post-polio). *J Adv Nurs*, 32(1), 164–173.

Koszela, K. (2013). The Stigmatization of Disabilities in Africa and the Developmental Effects. *Independent Study Project (ISP)*, 25. Retrieved from [http://digitalcollections.sit.edu/isp\\_collection/1639](http://digitalcollections.sit.edu/isp_collection/1639)

Lang, R. and Upah, L. (2008). *Scoping Study: Disability Issues in Nigeria*. The British Department for International Development (DFID). Retrieved from [https://www.ucl.ac.uk/lc-ccr/downloads/scopingstudies/dfid\\_nigeriaireport](https://www.ucl.ac.uk/lc-ccr/downloads/scopingstudies/dfid_nigeriaireport)

Munyi, C. W. (2012). Past and present perceptions towards disability: A historical perspective. *Disability Studies Quarterly*, 32(2), 1–10. <https://doi.org/10.1007/BF02766007>

Ogundola, O. J. (2013). *Framing Disability: A Content Analysis of Newspapers in Nigeria*. Syracuse University. Retrieved from [https://surface.syr.edu/cgi/viewcontent.cgi?article=1014&context=ms\\_thesis](https://surface.syr.edu/cgi/viewcontent.cgi?article=1014&context=ms_thesis)

Ogwumike, O. O., Kaka, B. and Adeniyi, A. F. (2012). Children with paralytic poliomyelitis: a cross-sectional study of knowledge, attitudes and beliefs of parents in Zamfara state, Nigeria. *BMC Public Health*, 12(1), 888. <https://doi.org/10.1186/1471-2458-12-888>

Olaoye, O., Oduola, B., Alonge, T. and Emechete, A. (2017). Attitude towards, contact with people with disabilities and knowledge of disability among health science undergraduates in a Nigerian university. *Journal*





*of Behavioral Health*, 6(3), 1.  
<https://doi.org/10.5455/jbh.20170401112757>

Omoniyi, M. B. I. (2014). Parental Attitude towards Disability and Gender in the Nigerian Context: Implications for Conselling. *Mediterranean Journal of Social Sciences*, 5(20), 2255.  
<https://doi.org/10.5901/mjss.2014.v5n20p2255>

Post, M. W. (2014). Definitions of Quality of Life: What Has Happened and How to Move On. *Topics in Spinal Cord Injury Rehabilitation*, 20(3), 167–180.

Renne, E. P. (2012). Polio in Nigeria. *History Compass*, 10(7), 496–511.

Renne, E. P. (2013). Disability and Well-being in Northern Nigeria. In *Reframing Disability and Quality of Life: A Global Perspective* (Vol. 52, pp. 1–16).  
<https://doi.org/10.1007/978-94-007-3018-2>

Sango, P. N. (2013). Visible But Invisible People Living With Disabilities in Nigeria. Retrieved May 3, 2017, from <http://www.cldn.com.ng/visible-but-invisible-people-living-with-disability-in-nigeria/>

Shiri, S., Wexler, I. D., Feintuch, U., Meiner, Z., & Schwartz, I. (2012). Post-polio syndrome: impact of hope on quality of life. *Disability and Rehabilitation*, 34(10), 824–830.

Silván-Ferrero, P., Recio, P., Molero, F. and Nouvilas-Pallejà, E. (2020). Psychological Quality of Life in People with Physical Disability: The Effect of Internalized Stigma, Collective Action and Resilience. *International Journal of Environmental Research and Public Health*, 17(1802). <https://doi.org/doi:10.3390/ijerph17051802>

Stuifbergen, A. K., Seraphine, A., Harrison, T., & Adachi, E. (2005). An explanatory model of health promotion and quality of life for persons with post-polio syndrome. *Social Science & Medicine*, 60(2), 383–393.

United Nations. (2012). Toolkit on Disability for Africa. Retrieved from <http://www.un.org/esa/socdev/documents/disability/Toolkit/Cultures-Beliefs-Disability.pdf>

Ventegodt, Søren, Merrick, J. and Andersen, N. J. (2003). Quality of Life Theory I . The IQOL Theory: An Integrative Theory of the Global Quality of Life Concept. *The Scientific World Journal*, 3, 1030–1040.  
<https://doi.org/10.1100/tsw.2003.82>

World Health Organization. (2011). *World Report on Disability*. World Health Organisation. Retrieved from [https://www.who.int/disabilities/world\\_report/2011/report.pdf](https://www.who.int/disabilities/world_report/2011/report.pdf)

World Health Organization. (2016a). Polio surveillance: tracking progress towards eradication, worldwide, 2014–2015. *World Health Organisation Weekly Epidemiological Record*, 91(15), 193–2008.

World Health Organization. (2016b). *Semi-Annual Status Report July to December 2015: Progress against the Polio Eradication and Endgame Strategic Plan 2013-2018*. Retrieved from [www.who.int](http://www.who.int)

Yang, E. J., Lee, S. Y., Kim, K., Jung, S. H., Jang, S. N., Han, S. J., ... Lim, J. Y. (2015). Factors associated with reduced quality of life in polio survivors in Korea. *Plos One*, 10(6), 1–11.

Zhang, Y., Subramaniam, M., Lee, S. P., Abdin, E., Sagayadevan, V., Jeyagurunathan, A., ... Chong, S. A. (2018). Affiliate stigma and its association with quality of life among caregivers of relatives with mental illness in Singapore. *Psychiatry Research*, 265(June 2017), 55–61.  
<https://doi.org/10.1016/j.psychres.2018.04.044>

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