Social Sciences & Humanities Open 10 (2024) 100988

Contents lists available at ScienceDirect

Social Sciences & Humanities Open

journal homepage: www.sciencedirect.com/journal/social-sciences-and-humanities-open

Regular Article

Predicting the feasibility of data collection for disability-related research in Sub-Saharan Africa

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ARTICLE INFO

Keywords:
Disability-related research
Research self-efficacy
Attitude to disability
Barriers to research
Persons with disabilities

ABSTRACT

This study presents the findings of an investigation into the feasibility of data collection for disability-related research in sub-Saharan Africa. Three research questions were raised and answered in the study. Data were collected from 164 respondents from 8 countries within the sub-Saharan African region. Five respondents were also purposively selected for a semi-structured interview. The qualitative data collected was thematically analysed while the quantitative data was descriptively and inferentially analysed. Findings in the study revealed the possibility of conducting disability-related research seamlessly within sub-Saharan African countries. However, there are a myriad of challenges that face the conducting of disability-related research in the region. Attitude towards disability had the highest likelihood of predicting the availability and accessibility of data for disability research. The study concluded that societal attitude had a strong influence on the conducting and productivity of disability-related research in sub-Saharan Africa. Valuable recommendations were offered based on the findings.

1. Introduction

Disability extends beyond having health problems to a complex social phenomenon that affects seamless and unhindered interactions between persons with disabilities (PWDs) and the features of the societal frameworks. Unfortunately, no society is immune to having PWDs in their communities. About 80 million people are estimated to be living with a disability in Africa (United Nations, 2023). Isolated studies have reported an estimated prevalence of PWDs in various African countries (Gomda et al., 2022; Statistics South Africa & Lehohla, 2014). Persons with disabilities on the continent of Africa are faced with a myriad of challenges that impede their effective educational and social inclusion (Gomda et al., 2022). Persons with disabilities constantly face this myriad of challenges (McKinney et al., 2021; Mitra, 2008) and calls have repeatedly been made by both the communities of PWDs and members of the public living without disabilities to find a workable and lasting solution to the recurrent challenges faced by PWDs.

Approaches leading to probable and sustainable solutions to the potential challenges require active action research. Notably, Swartz (2014) stated that there is an ongoing appreciable development in contemporary disability-related research in sub-Saharan Africa. Despite the successes recorded in disability-related research in sub-Saharan Africa, Swartz (2014) noted that the journey through such research is challenging. Other studies (Clish et al., 2022; Munyoro, 2018; Resnik & Hackett, 2022, pp. 39–54) shared the sentiment voiced by Swartz (2014) about the challenges faced when conducting disability-related research. However, while such studies affirmed that conducting disability-related research in sub-Saharan African nations can be challenging, there is yet to be a study that advances the factors that improve the accessibility and availability of disability-related data for research purposes in the region. Specifically, there is virtually no research evidence from sub-Saharan Africa that has advanced the predictive roles of research self-efficacy, the attitude towards disability, the potential barriers faced by researchers in disability studies, and the extent of the disability-related data's availability and accessibility for research purposes. Whereas, while previous studies have explored disability-related research globally, few have focused on the unique situation within sub-Saharan Africa, an area with distinct cultural, social, and logistical constraints. Therefore, the conduct of this study is based on the following objectives:

- to explore how feasible is it for researchers to conduct disability-related research in Sub-Sahara Africa.
- to ascertain if there any significant association between research self-efficacy, attitude towards disability, potential barriers faced by

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https://doi.org/10.1016/j.ssaho.2024.100988
Received 16 February 2024; Received in revised form 30 April 2024; Accepted 14 June 2024
Available online 16 June 2024
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researchers in disability studies and the extent of the disability-related data availability and accessibility.
- to determine which of the independent variables (research self-efficacy, attitude towards disabilities, barriers to research) has the greatest likelihood of predicting the extent to which disability data is available and accessible for research purposes.

2. Research question

This current study therefore sought to bridge the identified research gaps, based on the following research questions:

1. How feasible is conducting disability-related research?
2. Is there any significant association between research self-efficacy, attitude towards disability, potential barriers faced by researchers in disability studies and the extent of the disability-related data availability and accessibility?
3. Which of the independent variables (research self-efficacy, attitude towards disabilities, barriers to research) has the greatest likelihood of predicting the extent to which disability data is available and accessible for research purposes?

3. Significance of this study

This study specifically focused on Sub-Sahara Africa basically because of the uniqueness of the region in relation to cultural belief system which ultimately inform societal attitude towards persons living with disabilities. Thus, it is believed that the conduct of this study further brough exposition about the need for active data collection from and among persons with disability to improve on issues that affect education, psychosocial, and socio-economic parameters that would lead to improved quality of life for all in line with the agenda of the United Nations Sustainable Development Goals. It is believed that the conduct of this study has contributed to literature, the have policy implications. Finding of this study will shape research protocols in disability-related research and how researchers can navigate the 'hard-to-reach' population for data collection from persons with disabilities themselves through positive community participation and engagements.

4. Literature review

Some existing studies have indicated that there has been an improvement in the conduct of disability-related research, both in Africa and on other continents of the world (Resnik & Hackett, 2022, pp. 39–54; van der Heijden et al., 2019). The observed changes reported by Resnik and Hackett (2022, pp. 39–54) and van der Heijden et al. (2019) were probably due to positive outcomes of various international conventions, legislations, and treaties on issues related to disabilities, which have been domesticated in several countries. Lamentably, despite the observed improvements in the rate at which researchers in disability studies are investigating various phenomena relating to PWDs, they are still hindered by a variety of factors. Despite the advances in disability-related research, Resnik and Hackett (2022, pp. 39–54); and van der Heijden et al. (2019), averred that ethical consideration has been a major challenge to disability-related research. van der Heijden et al. (2019) asserted that ethical guidelines which confer special attention to vulnerable populations, such as those with disabilities, have further heightened the construct of ostracization and stigmatization of PWDs. Therefore, in order to avoid stringent ethical concerns, disability-related researchers have rarely included PWDs as study participants and rather collected relevant disability-related research data through in-direct contact with PWDs.

Thus, providing relevant recommendations and possible solutions to issues that directly concern persons with disabilities may be difficult, with negative resultant effects on education, health, employability, and overall quality of life (Capri & Coetzee, 2012; Carey & Griffiths, 2017; Coffey et al., 2014; Hartmann & Krishnan, 2016). In 2014, Swartz argued that over-valuing of a third person's account on issues of disabilities during disability-related research may provide incorrect data based on assumption, because 'what I notice about the PWDs' differs significantly from the 'personal accounts of PWDs themselves'. Furthermore, Mitra et al. (2013); and Shakespeare (2013) averred that expectations of PWDs with regard to remuneration for participating in disability-related research has been a source of concern for researchers in disability-studies, especially when such studies are not funded. Although Swartz (2014) shared the sentiments of Mitra et al. (2013); and Shakespeare (2013), he believed that disability-researchers with vast experience should be able to encourage PWDs to see beyond immediate rewards for research activities.

Irrespective of the experience of researchers in disability studies, access to PWDs for the purpose of data collection and other research engagements can be challenging. Clish et al. (2022); Ipsen et al. (2022); and Soltani et al. (2012) have stated that locating PWDs for research engagements can be difficult because they represent a minority of the population within a community. Hindrances to recruitment and participation of PWDs in research is greatly influenced by location (rural/-urban), communication difficulties, logistics, awareness and/or the attitude of both PWDs and their peers with no disabilities towards disability-related research phenomena (Ipsen et al., 2022; McKinney et al., 2021; Soltani et al., 2012), as well as a lack of research confidence (Brancolini & Kennedy, 2017). Research confidence, espoused by Brancolini and Kennedy (2017), is more commonly regarded as research self-efficacy (RSE) (Livinţi et al., 2021). RSE is a term used to describe the degree of confidence or belief in one's potential to successfully engage, conduct and complete research tasks (Brancolini & Kennedy, 2017; Livinţi et al., 2021). Research tasks may include several aspects of research activities, such as the conceptualization of research ideas, a literature review, writing, data collection, data synthesis and analysis, among others.

Existing evidence has shown that various studies have examined the implications of RSE on research engagements and research productivity (Brancolini & Kennedy, 2017; Livinţi et al., 2021; Nazari et al., 2021; Tiyuri et al., 2018; Wester et al., 2019). Such existing studies have focused on several disciplines and professions, for instance, the study by Jeffe et al. (2017) focused on investigators in biomedical research. Brancolini and Kennedy (2017) focused on academic librarians. Wester et al. (2019) focused on faculty members. Büyüköztürk et al. (2011); and Hill et al. (2022) focused on undergraduates, while the studies of Adekunle and Madukoma (2022); and Nazari et al. (2021) focused on the research self-efficacy of postgraduates. Until the present, no existing studies have examined the predictive potential of RSE for conducting disability-related research, but existing related studies have indicated that there is a significant association between RSE and various contextual variables and the effect that this has on the dynamics of the outcome (dependent) variables. For instance, Pasupathy and Siwatu (2014) and Quimbo and Sulabo (2014), reported that RSE among a diverse array of researchers across different disciplines and professions significantly predicted their research productivity.

In other studies, RSE was found as a predictive factor for research intention, interest, mentoring experiences, and expectations (Bard et al., 2000; Eam & Seng, 2017; Hollingsworth & Fassinger, 2002; Tate et al., 2015). In the study by Frantz et al. (2017), a close affinity was reported between RSE and the intention to undertake a career in research. While RSE is an important construct in research endeavours, the implication of RSE in disability-related research is still unknown. Earlier findings established that the researchers with low research self-efficacy may risk research avoidance (Brancolini & Kennedy, 2017). Regrettably, some studies have shown that researchers in disability studies may tend to avoid recruiting PWDs in their research due to various contextual factors (Carey & Griffiths, 2017; Coffey et al., 2014; Hartmann & Krishnan, 2016; Ipsen et al., 2022; McKinney et al., 2021; Soltani et al., 2012; van der Heijden et al., 2019). However, the extent of the influence of RSE in

disability-related research in sub-Saharan Africa is yet to be determined, hence, this current study took place.

Regardless of the potential research self-efficacies of scholars/researchers in disability studies, personal and societal attitudes towards PWDs may influence the conduct of disability-related research. Attitude may further be described as a compass that shapes the society. Earlier studies by Olson and Zanna (1993) stated that there are three elements of attitude, which are (i) affective (ii) cognitive and (iii) behavioural. According to Olson and Zanna (1993), each of the components of attitude have composite and relative associations towards emergent perceptions about and opinions towards PWDs. Babik and Gardner (2021) posited that a negative attitude towards PWDs, which may originate from the three components of attitude (Olson & Zanna, 1993), may promote discrimination, social exclusion and economic disempowerment. In other words, when individuals and society at large display a positive attitude towards PWDs, there are greater tendencies for social inclusiveness and improved quality of life for PWDs (Adigun, 2021; Avramidis, 2013; Freer & Kaefer, 2021; Petry, 2018).

Many past studies have investigated the dynamics of issues regarding societal attitudes towards PWDs (Avramidis, 2013; Freer & Kaefer, 2021; Olson & Zanna, 1993; Wang et al., 2021; Zheng et al., 2016). Other studies were found to have investigated the attitude of PWDs themselves towards disabilities (Snead & Davis, 2002; Zheng et al., 2014). Overall, the findings from the studies on attitude have bemoaned the influence of a negative attitude towards PWDs on the downward trends seen in self-acceptance, socio-economic empowerment, social inclusion, and the quality of life of the PWDs. Although such studies have recommended further research into the fabric of the attitude towards PWDs, no study, especially from sub-Saharan Africa, has established if peoples' attitude towards PWDs or the attitude of PWDs themselves influences research potential. The question of whether attitude towards disabilities has an association with disability researchers' capacity to engage actively in disability-related research therefore remained unanswered. This study was instituted to provide empirical evidence from sub-Saharan Africa to bridge this identified research gap.

Research reports have revealed that a negative attitude may serve as a barrier to expected developments (Avramidis, 2013; Okoduwa et al., 2018). Interestingly, the negative effects of an unwholesome attitude not only affect socio-personal interaction and social inclusion, but also affect research capacities and productivities (Dadipoor et al., 2019; Okoduwa et al., 2018). In their study among some staff members of the Nigerian Institute of Leather and Science Technology (NILST), Okoduwa et al. (2018) posited that despite the fact that the academic staff of the institute were meant to conduct research and publish it, the attitude of many of their participants towards the research discouraged some of them from engaging in meaningful research. Okoduwa et al. (2018) also noted that, besides the academic staff members' attitude towards research engagements, several other factors such as lack of funding for research purposes, lack of professional mentorship, and inadequacies of the facilities that enabled research were obstacles that prevented them from conducting relevant research.

Similar to the findings of Okoduwa et al. (2018); Dadipoor et al. (2019); and Khalaf et al. (2019) reported that medical students from the Hormozgan University of Medical Sciences, Iran, perceived the barriers to their research engagements and productivity as the inability to have seamless access to required information, communication difficulties, administrative challenges, restrictive protocols, deficient research budgets, and a lack of extended capacity for research writings. Some other studies also reported that lack of or limited access to special research funding, sources and facilities remained the major barriers to research activities (Hegde et al., 2017). Alsied and Ibrahim (2017); and Bocar (2013) believed that demotivation was the major barrier to research endeavours. Hegde et al. (2017) argued that lack of access to sufficient funding for research purposes contributed to low research morale among researchers, and Adekunle and Madukoma (2022); and Nazari et al. (2021) opined that inadequate access to funds for research could contribute to low Research self-efficacy.

Other studies identified inadequacies in research skills and methods, as well as characteristics of the research populations and participants as the major challenges hindering research activities, especially among postgraduates (Abedini, Abedini, Kamalzadeh, Momeni, & Zare, 2009; Ashrafi-Rizi et al., 2015). Evidence has shown that there is established research in various academic disciplines and a research niche for the potential barriers faced by researchers in their fields. Resnik and Hackett (2022, pp. 39–54); and van der Heijden et al. (2019) have noted that while there is on-going rapid development in disability-related research, this field of research is faced with a series of barriers at all stages, especially during recruitment of study participants and data collection. While potential barriers to research in other fields of study have been exposed (Alsied & Ibrahim, 2017; Clish et al., 2022; Dadipoor et al., 2019; Hegde et al., 2017; Khalaf et al. 2019; Okoduwa et al., 2018), the potential barriers faced by disability-related research in sub-Saharan Africa are yet to be ascertained. This current study thus set out to determine and examine the barriers to disability-related research in sub-Saharan Africa.

5. Materials and method

5.1. Design and sampling process

This study employed a cross-sectional design (Kesmodel, 2018) to provide descriptive empirical information on the capacities of factors that may predict the ease of data collection in disability research in sub-Saharan Africa. A multistage sampling procedure was employed to select 164 respondents for this study. First, a purposive sampling procedure was employed to identify scholars/researchers in disability studies from eight Sub-Sahara African countries which are Ghana, Kenya, Lesotho, Liberia, Nigeria, South Africa, Tanzania, and Zimbabwe. Scholars from different Sub-Sahara African countries were sourced for through (i) the webpages of various sub-Saharan Higher Educational Institutions offering courses related to disabilities; (ii) various professional organizations; and (iii) referrals (snowballing). Researchers/Scholars identified through the aforementioned searches were emailed through their email contacts which were harvested from various online profiles of researchers/scholars who has interested in disability-related research. In the email, the research provided the respondents with the objectives of the study and asked them to respond to the e-questionnaire. Also, five disability-related researchers were as randomly selected from five different universities across three African countries which were Liberia, Nigeria and South Africa respectively for a semi-structured interview which was conducted over the phone through the WhatsApp as shown in Fig. 1.

5.2. Measures

A self-reported electronic questionnaire was designed and used for data collection in this study. The questionnaire had five sections, which are discussed below:

Sociodemographic information: Section A of the research instrument was used to collect some demographic information of the respondents. Section A had only six items which assessed basic information such as gender, country of residence, place or institution where the respondents were conducting disability-related research, and years of research experience.

Extent of disability-related data availability: Section B of the questionnaire was a self-development assessment consisting of 12 questions designed in a 3-point response format of: 1 = "To a great extent"; 2 = "To some extent", and 3 = "Almost very difficult". Section B was what assessed the extent to which disability-related data was available and accessible in the various locations of the respondents. This section consisted of questions such as: "To what extent is disability-related data readily available to you for research purposes?" and "To what extent is it

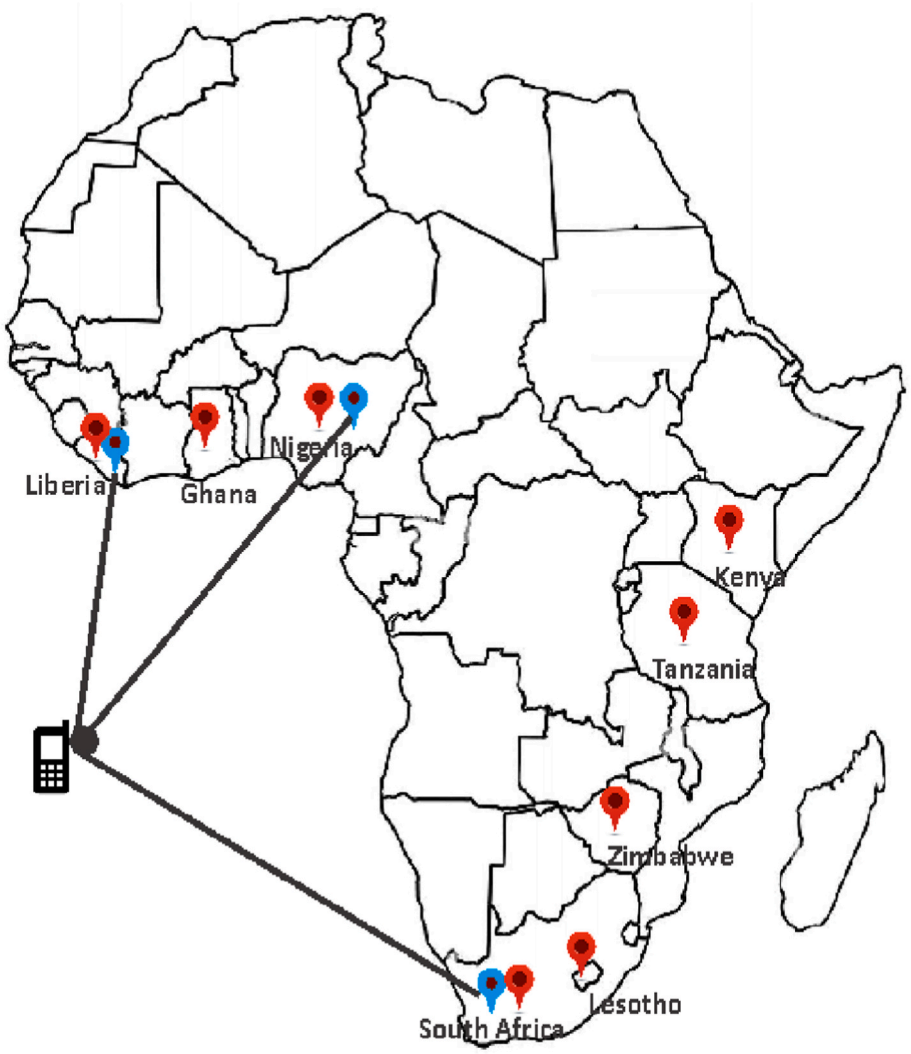

Fig. 1. Map of Africa highlighting eight countries represented in the study.

easy to access and collect disability-related data for research purposes within your locality?"

Research self-efficacy: The research self-efficacy scale (RSES) developed by Büyüköztürk et al. (2011) was adapted for this study. The RSES (Section C) consists of an 18-item questionnaire, and 17 of the items were chosen and modified for use in this study. An example of one of Büyüköztürk et al.'s (2011) questions was "I can explain my research problem through drawing the necessary relations with prior research results". This was modified to "I can explain my research problem to my participants through drawing the necessary relations with related social and environmental problems as it concerns PWDs". The modified RSES was redesigned in a 4-point Likert scale of "1 = Strongly Disagree, to 4 = Strongly Agree". The study of Wajid and Jami (2020) reported a reliability co-efficient of 0.89 for the RSES.

Attitude towards disability scale (ADS): The ADS developed by Power et al. (2010) was adopted for use in this study. The ADS is a 16-item (Section D) questionnaire with 4 sub-scales which assess inclusion, discrimination, gains and prospects. The sub-scales of the ADS are in a 4-point response format of "1 = Strongly Disagree, to 4 = Strongly Agree", and they each have four-item questions. Zheng et al. (2016) affirmed a reliability co-efficient of 0.77 for the ADS in their study and the sub-scales of the ADS were reported to have reliability co-efficients of inclusion ($\alpha = 0.76$), discrimination ($\alpha = 0.74$), gains ($\alpha = 0.75$) and prospects ($\alpha = 0.72$).

Barrier scale: The barrier scale developed by Funk et al. (1991) formed Section E of the electronic questionnaire. The barrier scale was used to measure the barriers to disability research. The barrier scale is a 29-item scale with 4 sub-scales which seek to determine the factors that pose as barriers to the availability of or access to disability-related research. This study adapted the barrier scale, and made use of 21 relevant items which were subdivided into three sub-scales to reflect the issues of disability-related research. An example of an item on the barrier scale of Funk et al. (1991) that was adapted was "The nurse does not see the value of research for practice". This was changed to "Research respondents do not always see the value in disability-related research practices". The adapted barrier scale was redesigned in a 4-point response format of "1 = Strongly Disagree to 4 = Strongly Agree". Čebohin et al. (2021) reported an internal consistency value of 0.80, 0.72, 0.80, and 0.65 for the four sub-scales in the original barrier scale of Funk et al. (1991).

5.3. Reliability measures of the instruments

Content and face validities of the question items were ensured based on expert reviews. Furthermore, the questionnaire items were subjected to revalidation among 30 researchers and academics in educational studies at a College of Education and a University of Education in Nigeria. The 30 researchers and academics in educational studies did not participate in this current study. The revalidation of the instruments generated a Cronbach's Alpha of 0.81 for *extent of disability-related data*

availability, 0.79 for *RSES,* 0.20 for the *ADS* and α = 0.71, α = 0.65, α = 0.81 and α = 0.74 for inclusion, discrimination, gains and prospects respectively, which were the sub-scales of the ADS. Lastly, the *barrier scale* was found to have an internal consistency value of α = 0.82.

5.4. Procedure for data collection

Semi-structured telephone-enabled in-depth interviews were conducted to gather data responses from five disability researchers/scholars from two universities in Nigeria and South Africa and one university in Liberia to answer research question one. The discursive interviews which lasted for about 15 min with each interviewee afforded the researcher and participants the ability to explore the issues related to conducting disability-related research in Sub-Saharan Africa. Based on the responses of the interviewees, the researcher was also able to obtain quantitative information on issues that pertained to the accessibility and availability of disability-related data in Sub-Saharan Africa. This was done using a Google form. The link to the Google form was shared with potential respondents using various means, such as email addresses and the WhatsApp platform. Data collection lasted for six weeks, and weekly reminders were sent to potential respondents for five weeks. Approval to conduct the study was obtained from the Institutional Review Board of the corresponding Author. Hence, participation in the study was voluntary and there was no form of any reward to those who participated in the study. Informed consent to participate in the study was achieved and confidentiality of the responses provided was ensured according to the ethics of social sciences research as presented in the *Declaration* of *Helsinki.*

6. Ethical consideration

The respondents voluntarily provided their informed verbal and written consent to participate in the study. The study was approved by the institution's Institutional Review Board of the Author. In addition, all ethics of social sciences and humanities research espoused by the *Declaration* of *Helsinki* involving human subjects were strictly adhered to.

7. Data analysis

The audio-recorded qualitative dataset collected in answer to research question one was transcribed into Microsoft Word and coded. The anonymity of the respondents was ensured, and the transcribed interviews were thematically analysed based on the interpretivist paradigm (Cohen et al., 2011). Respondents to the semi-structured in-depth interviews were coded as R1 to R5. The iterative process of the data analysis (Creswell, 2013), comparison of the repetitive themes and summarization of the data collected ensured that a conclusion could be drawn on the repetitive themes.

The SPSS statistical package v.23 was used to code and analyze the quantitative data generated at a 0.05 level of significance. Descriptive statistics involving a frequency count and simple percentages were used to analyze the socio-demographic data obtained from the 164 researchers/scholars in disability studies who participated in this current study. Inferential statistics involving Chi Square ($\chi 2$) were used to analyze the data to respond to research question two and research question three was analysed using a binary logistic regression.

The extent of the availability of disability research data that was measured in a three-response format was recoded in different variables for the purpose of determining the association between the independent variables and the dependent variable. The recoding using the SPSS revealed that a total of 98 respondents believed that accessing disability data was *almost very difficult*; 55 believed that such data was available *to some extent;* and only 11 respondents said such data was available and accessible *to a great extent*. The extent of the availability of the disability research data was dichotomized (1 = minimal extent; 2 = large extent), as is required for binary logistic regression analysis.

9. Results

The respondents to the link distributed to the research instrument (Google form) spanned across eight countries in sub-Saharan Africa, namely Ghana, Kenya, Lesotho, Liberia, Nigeria, South Africa, Tanzania and Zimbabwe. A total of 32.3% of the study's respondents were from Nigeria; 20.7% were from Ghana; 11.0% were from South Africa; 9.8% were from Lesotho; and 7.9% were from Tanzania; while 6.1% of the respondents were from Kenya, Liberia and Zimbabwe respectively (See Fig. 2). As shown on Fig. 3, fourteen per cent of the total respondents identified as persons with disabilities. Also, 43.9% of the 164 respondents identified as female (Fig. 3). In terms of years of research experience (Fig. 4), 36.6% of the study respondents had over 11 years of research experience in disability-related research while 25.6% had less than five years' experience at conducting disability-related research. A total of 30 (18.3%) respondents were current research students across various universities in the 8 countries included in this study. A total of 80.4% of the respondents had a Master's degree and above as educational qualifications (Fig. 4).

9.1. Research question one

How feasible is conducting disability-related research?

Two themes were generated from iterative thematic analysis of the responses from five (R1 to R5) participants of the interview sessions. These themes were: (i) attitude, and (ii) logistics.

In respect to theme (i) attitude, one participant, R1 from Nigeria, stated:

> Many times, attitude of respondents when conducting (disability-related research) research is unwelcoming. By respondents, I mean those who identify as having disabilities and others without. They seems to view researchers as a disturbance of their peace.

R4, a researcher from Liberia, commented:

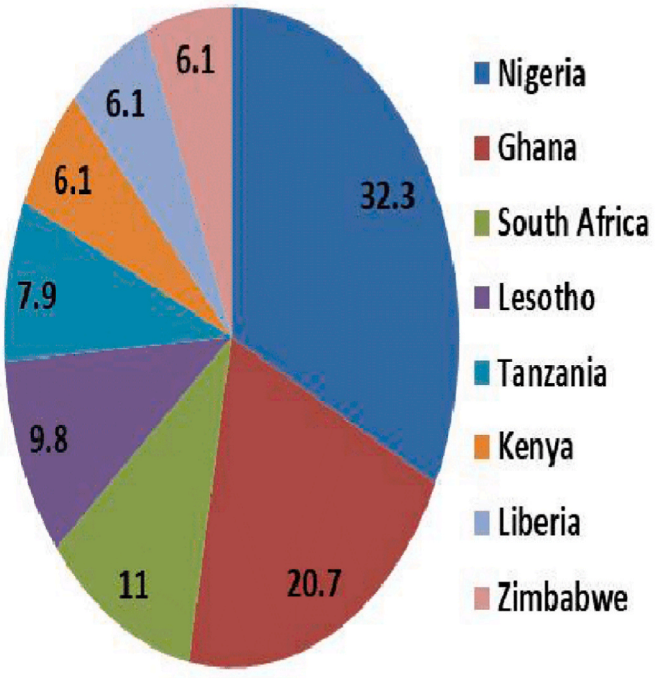

Fig. 2. Percentage respondents from countries represented in the study (N = 164).

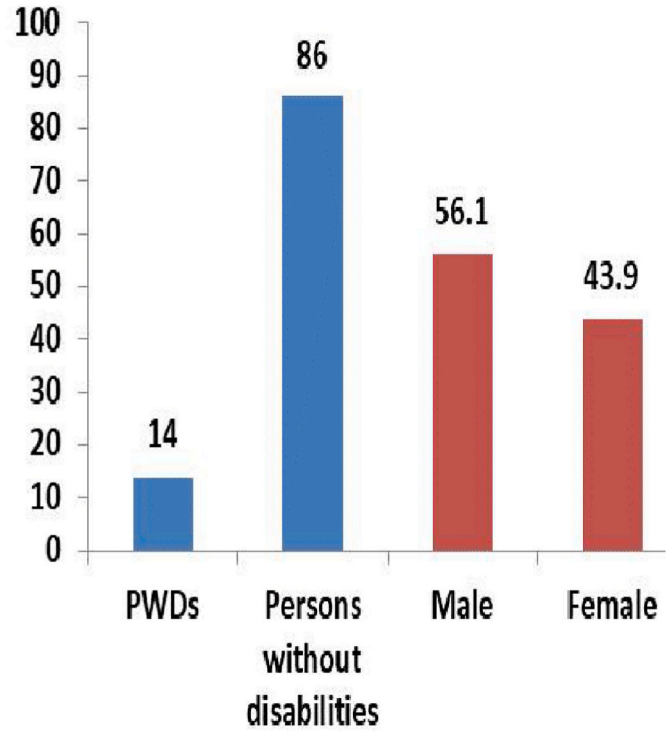

Fig. 3. Charts representing persons with disabilities (PWDs) and without disabilities, and gender of the respondents in percentage.

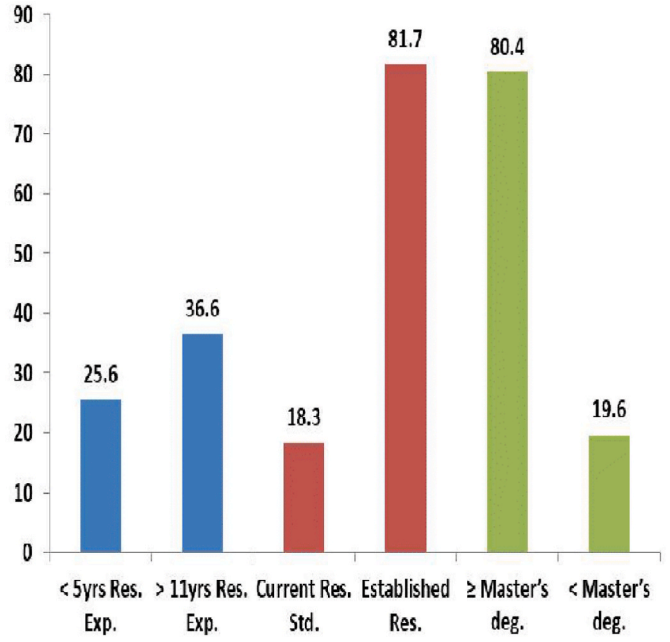

Fig. 4. Charts representing respondents' years of experiences on PWDs related research, stage in research career, and level of education in percentage.

> Well, my experience of their attitude showed that respondents in my past studies do not see how disability-related research directly impacts on their personal life. You may have a study respondent asking you, the researcher, "How does your study put food on my table?"

While R2 from Nigeria shared the sentiment of R4, another disability scholar (R3) from South Africa expressed the following:

> Conducting disability-related research is feasible, but the attitude of people during data collection can frustrate the data collection processes. It is not that the data is not there on the field, but a researcher can spend a luxury of time chasing study participants.

Responses from the participants showed that while collection of disability data was feasible in sub-Saharan Africa, the attitudes of people had significant implications for how well, fast, and easy it was for disability-related researchers to obtain the relevant data needed for their research. As observed from the responses, it was sometimes a herculean task to access the relevant disability-related data due to negative, unwelcoming attitudes of the potential respondents/participants.

9.1.1. Logistics

Issues of logistics were emphatically expressed by the respondents. For instance, R2, a researcher from Nigeria, had the following to say about the challenges posed by logistics. R2 stated:

> Logistics, which include funding and other factors that may facilitate easy access to communities for the purpose of conducting disability researches is very limited. In most cases, there is limited or no support for logistics from the institutions. Therefore, conducting disability studies in some locations is not significantly feasible.

Similarly, R5, who is a South African researcher in disability studies, stated that:

> Access to required logistics to conduct researches in some areas is almost not available. For instance, conducting disability-related researches in remote/rural areas can be challenging when there is limited logistics to access such rural areas.

Also, R3 remarked:

> Hmm! Conducting researches within the communities of PWDs requires substantial preparation. During my studies, I noted that many PWDs will require you as a researcher to give them some money or anything for participating in your study. Unfortunately, many of our researches are self-funded or have limited funding opportunities.

The responses above revealed the challenging situations experienced by researchers/scholars in disability studies in sub-Saharan Africa. The findings indicated that there is limited availability of the logistics required to conduct disability-related research in sub-Saharan African nations.

9.2. Research question two

Is there any significant association between research self-efficacy, attitude towards disability, potential barriers faced by researchers in disability studies, and the extent of disability-related data availability and accessibility?

As shown on Table 1, all of the independent variables, namely research self-efficacy ($\chi 2 = 196.957$, $p < 0.05$); attitude to disabilities

Table 1
Association between research self-efficacy, attitude towards disabilities, barriers to disability research, and availability of and access to disability-related data in sub-Saharan Africa.

Variable	X^2	*Df*	*Sig*
Research self-efficacy	196.957	30	$p < .00$
Attitude to disabilities	181.068	30	$p < .00$
Attitude to disabilities_Inclusion	217.347	22	$p < .00$
Attitude to disabilities_discrimination	90.218	14	$p < .00$
Attitude to disabilities_gains	171.002	24	$p < .00$
Attitude to disabilities_prospect	143.119	12	$p < .00$
Barrier to research	170.870	30	$p < .00$
Barrier_repondents	179.161	28	$p < .00$
Barrier_research location	171.403	30	$p < .00$
Barrier_research communication	181.628	28	$p < .00$

($\chi2 = 181.068$, $p < 0.05$); and barriers to research ($\chi2 = 170.870$, $p < 0.05$) were significantly associated with availability of and access to disability data for research purposes. In addition, all of the sub-scales of attitude towards disabilities (inclusion, $\chi2 = 217.347$, $p < 0.05$; discrimination, $\chi2 = 90.218$, $p < 0.05$; gains, $\chi2 = 171.002$, $p < 0.05$; prospects, $\chi2 = 143.119$, $p < 0.05$) and the barriers to disability-related research (respondents, $\chi2 = 179.161$, $p < 0.05$; research location, $\chi2 = 171.403$, $p < 0.05$ and research communication, $\chi2 = 181.628$, $p < 0.05$) were found to have a significant positive association with the extent to which disability data was available and accessible for research purposes. This implied that a direct and proportional association existed between the independent variables and the extent to which disability data was available and accessible for research purposes.

9.3. Research question three

Which of the independent variables (research self-efficacy, attitude to disabilities, barriers to research) has the greatest likelihood of predicting the extent to which disability data is available and accessible for research purposes?

In response to research question three, all assumptions of binary logistic regression were checked and ensured (Menard, 2010). In other words, multicollinearity was established, and no assumptions were violated. A statistically significant Omnibus Test of the model coefficients was performed ($\chi2_{(n=164)} = 34.814$, $p < .00$) in order to assess the fitness of the data to the model. A significant Omnibus Test of the model coefficients implied that the model was able to distinguish between the sub-scales vis-à-vis the extent to which disability data was available and accessible for research purposes. An estimated variance of the independent variables was classified in 89.0% of the cases. The computed variance showed that a strong association existed between the predictors and the model.

A binary logistic regression was computed in order to further establish the significant predictive capacities of the independent variables on the dependent variable. As shown in Table 2, regardless of the gender of the study respondents, attitude towards disability (OR = 1.16, 95% CI [1.07, 1.25], $p < 0.05$); research self-efficacy (OR = 1.10, 95% CI [1.00, 1.21], $p < 0.05$); and barriers to disability research (OR = 0.91, 95% CI [0.84, 0.99], $p < 0.05$) (in that order) had high likelihoods of predicting the extent to which disability data was available and accessible for research purposes. This further implied that attitude towards disability had an 11.6% likelihood of predicting the extent to which researchers/scholars of disability studies would have access to disability research data available as compared to an 11.0% and 10% likelihood for research self-efficacy and barriers to disability research respectively.

10. Discussion

Achieving the UN Sustainable Development Goals (Morton et al., 2017) in Africa, particularly as they concern the communities of PWDs, is a task that can be achieved without active research activities. Since the issues of disabilities are dynamic, there is a recurrent need to re-appraise various phenomena that improve the socio-cohesion, inclusion, education, and quality of life of PWDs in Africa. While past studies have recorded rapid development of African researchers' interest in disability studies (Clish et al., 2022; Munyoro, 2018; Resnik & Hackett, 2022, pp. 39–54; Swartz, 2014), emerging evidence shows that conducting disability-related research in sub-Saharan Africa may be challenging. Therefore, this study assessed the feasibility of conducting disability-related research among researchers from eight African countries. Findings from the semi-structured interviews revealed that conducting disability-related research in sub-Saharan African countries is feasible and achievable, but researchers in disability studies have constantly been faced with challenges. This study found that peoples' attitude (positive or negative) towards the research, researcher and PWDs has a significant influence on how feasible it can be to conduct disability-related research in sub-Saharan Africa. A negative attitude can hinder recruitment of research participants and data collection processes. In addition, a lack of required logistics and research funding may make the conduct of disability-related research somewhat difficult to achieve in sub-Saharan African nations.

The findings from this study confirmed that there is a rapid rise in the rate at which African researchers have developed an interest in conducting action research in disability studies using community based approaches (Gomda et al., 2022; Lehohla, 2014; McKinney et al., 2021; Mitra, 2008; Munyoro, 2018; Resnik & Hackett, 2022, pp. 39–54; Swartz, 2014; van der Heijden et al., 2019). Such research has exposed various issues confronting PWDs in sub-Saharan African countries and how feasible conducting disability-related research can be on the continent. However, conducting disability-related research in sub-Saharan African countries is influenced by variations in the attitudes of members of the public, inclusive of PWDs themselves. Unlike Resnik and Hackett's (2022, pp. 39–54) research, van der Heijden et al. (2019) reported that the conducting of disability-related research faces significant challenges based on ethical issues, as it concerns the conducting of research among minority/vulnerable groups. Several past studies have identified attitudinal characteristics as a challenging phenomenon in research activities (Adigun, 2021; Avramidis, 2013; Freer & Kaefer, 2021; Mitra et al., 2013; Petry, 2018; Shakespeare, 2013). This study's findings provide support for the findings of the past studies by Adekunle and Madukoma (2022); Alsied and Ibrahim (2017); Hegde et al. (2017); and Nazari et al. (2021) on the negative effect of deficits in the logistics and financial support required to conduct disability-related research. Bocar (2013) remarked that a lack of required research funding and logistics may demotivate disability-research endeavours.

This study established an association between research self-efficacy, attitude towards disabilities, barriers to research and the extent of disability-related data availability and accessibility for research purposes. The findings revealed that access to and making relevant disability-research data available largely depends on the capacities of the researcher. In other words, it relies on how well a disability-related researcher can convincingly recruit participants for research purposes and gather relevant information from such participants. This study believes that disability related researchers with higher levels of research self-efficacy may have more seamless access to research participants and perhaps surmount potential barriers that can hinder such research endeavours. Brancolini and Kennedy (2017); and Livinţi et al. (2021) highlighted the importance of confidence levels when undertaking research tasks. Brancolini and Kennedy (2017) expressed that conducting research, particularly among minority groups, requires an

Table 2
Binary analysis of the independent and dependent variables.

		B	S.E.	Wald	Exp(B)	95% C.I. for EXP(B)		Df	Sig.
						Lower	Upper		
Step 1a	Gender (1)	0.256	0.498	0.263	1.291	0.486	3.430	1	0.608
	Research self-efficacy	0.097	0.048	4.030	1.102	1.002	1.211	1	0.043**
	Attitude to disability	0.145	0.040	13.449	1.156	1.070	1.249	1	0.000**
	Barriers to disability research	−0.094	0.041	5.103	0.911	0.840	0.988	1	0.024**
	Constant	−2.815	1.572	3.206	0.060			1	0.009**

investigator to be equipped with all the skills needed for data collection. In other words, Brancolini and Kennedy (2017) were of the belief that research activities require higher levels of research self-efficacy and adequate knowledge about the constructs being investigated.

The findings of this study with respect to the association between research self-efficacy and disability-related data availability and accessibility for research purposes correspond to the findings reported in the previous studies by Adekunle and Madukoma (2022); Büyüköztürk et al. (2011); Hill et al. (2022); Jeffe et al. (2017); Livinţi et al. (2021); Nazari et al. (2021); Tiyuri (2018); and Wester et al. (2019). Despite the level of research self-efficacy among researchers, just as was found in this study, past studies such as those by Adigun (2021); Avramidis (2013); Dadipoor et al. (2019); Okoduwa et al. (2018); and Olson and Zanna (1993) have shown that societal attitudes towards PWDs have significant implications for the social adjustment, integration and inclusion of PWDs in mainstream society. Two studies were found to have expressed concerns about the attitude of PWDs towards their own disabilities (Snead & Davis, 2002; Zheng et al., 2014). Together, societal attitudes towards PWDs and the attitude of PWDs themselves towards disabilities are significantly linked with how well they may be readily available for inclusion as respondents in disability-related research in sub-Saharan Africa. Based on the findings in this study, the authors' assumptions are that a positive attitude towards PWDs and a positive attitude of PWDs towards their own disabling condition would facilitate seamless conduct of disability-related research.

In addition, a significant association was identified between potential barriers and the extent to which disability-related research data is available and accessible for research purposes. Okoduwa et al. (2018), in their study among some academic staff of the NILST, noted that despite the potential of RSE among their participants, they were demotivated to conduct research related activities. Earlier studies by Bocar (2013); and Hegde et al. (2017) posited that meaningful research engagement requires recurrent motivation. Specifically, Hegde et al. (2017) asserted that a lack of access to research funding and inadequate provisions for research logistics and facilities needed for research demoralised researchers. Such barriers, for example communication barriers and lack of adequate financial resources to execute disability-related research, among others, had the potential to stand as challenges for the seamless conduct of disability-related research, as found among the study respondents. The findings of this current study provide support for earlier reported research that frowned at: (i) the lack of access to or inadequate funding for research purposes (Adekunle & Madukoma, 2022; Nazari et al., 2021); (ii) issues concerning access to potential research participants (Clish et al., 2022; Ipsen et al., 2022; Soltani et al., 2012); and (iii) communication difficulties, logistics and/or the attitude of both PWDs and peers with no disabilities towards disability-related research (Brancolini & Kennedy, 2017; Ipsen et al., 2022; McKinney et al., 2021; Soltani et al., 2012).

Gender differences of the respondents in this study were found to have no predictive capacities on the extent of disability-related research data availability and accessibility for research purposes. On the other hand, attitude towards disability was found to have the highest likelihood of predicting the extent to which disability data is available and accessible, followed by RSE and barriers to disability research respectively. This study's findings further demonstrated the significance of attitude over and above other variables. This implies that irrespective of skills or gender identification, the attitude of an individual plays a significant role in social interaction and development. Based on these findings, the author believes a positive attitude towards disabilities will foster a conducive environment that accommodates research activities. The findings further established various reports on the implications of attitude on research activities (Avramidis, 2013; Babik & Gardner, 2021; Freer & Kaefer, 2021; Olson & Zanna, 1993; Snead & Davis, 2002; Wang et al., 2021; Zheng et al., 2014, 2016). While other variables may have an impact on the availability and accessibility of disability-related research data, Adigun (2021); Avramidis (2013); Babik and Gardner (2021); Freer and Kaefer (2021); and Zheng et al. (2014) asserted that societal attitudes are crucial to positive research outcomes and research productivity.

11. Recommendations

The following recommendations are offered based on the findings of the study:

The need for the development of a positive attitude towards PWDs and disabilities is of utmost importance. Since other skills and the required support that may foster disability-related research largely depend on individuals and society's attitudes, there is a need for the development of institutional policies geared towards intensive sensitization for attitudinal changes in order to promote social cohesion and inclusiveness. Sensitization programmes should be provided using all available (audio-visual) media. In fact, it is imperative that governmental, non-governmental and inter-governmental agencies collaborate to develop a workable approach and policies that will collectively build a positive disposition by members of the public towards disabilities and PWDs in general. Also, such sensitization programmes should leverage on various Afrocentric philosophies, such as the philosophy of Omolúàbí among the Yorùbá speakers in Nigeria (Adebowale & Onayemi, 2019; Fabiyi, 2021) and the philosophy of Ubuntu/Botho (Ngubane & Makua, 2021) found among the people of Southern African countries. Both Omolúàbí and *Ubuntu/Botho* speak about issues of humaneness, development, and acceptance of positive attitudes towards all. Lephoto and Adigun (2023) state that through such Afrocentric approaches, the cultivation and development of positive attitudes towards PWDs to facilitate their full inclusion in society and for the advancement of inclusive education will be easily achieved.

More so, there is a need for educational and research institutions to promote community action-based disability-related research. Such deliberate and concerted efforts will be a source of motivation for disability-related research to spring up rapidly. Outcomes of such research will aid timely achievement of the SDGs in sub-Saharan Africa. Lastly, all potential barriers mitigating against disability-related research should be totally removed or minimized. More funding should be devoted to disability-related research in order to achieve a positive effect on the quality of life for PWDs and social inclusion.

12. Conclusion

Provision of the required support for PWDs should meet the specific requirements. How such provisions will meet the needs of PWDS cannot be adequately determined until extensive research is conducted. Conducting such disability-related research requires the need for a positive disposition and support for all. Previous related research has always expressed the various challenges faced when conducting disability-related research, but no existing study has assessed the predictive capacities of factors that may provide information on the accessibility and availability of disability-related data for further research purposes. This current study therefore filled the identified research gap. Based on the findings of this current study, this study concludes that:

- Conducting seamless disability-related research in sub-Saharan African countries is very feasible, but faces various challenges that include, but are not limited to, negative attitudes towards disabilities, lack of opportunities for research support and communication difficulties.
- A significant association exists between RSE, attitude towards disabilities, barriers to research and the extent of disability-related data availability and accessibility for research purposes. And
- Attitude towards disability has the highest likelihood of predicting the extent to which disability data is available and accessible for research purposes, followed by RSE and barriers to disability research respectively.

13. Limitation and suggestion for further study

No research study is exhaustive. Therefore, this study acknowledged that there are some limitations in this study. While this study acknowledges the opportunity and strength of mixed study research (McKim, 2017), we are aware that virtual means of data collection from only scholars/researchers in disability-related research can not holistically present the true reflection of data collection among the 'hard--to-reach' population of persons living with disabilities across the Sub-Sahara African region. While it is a fact that Sub-Sahara Africa is rich in cultural diversity, this study failed to consider the implication of cultural belief systems on research activities that mainly focus on persons with disabilities. The research of this current study therefore encourages future studies of this magnitude to have direct contact with relevant stakeholders in disability-related research to get a face-to-face contact with them while collecting relevant data. Such opportunity may provide more robust information that may foster extensive information required for data collection for research among persons with disabilities. Future studies can as well secure funding to have extensive physical access into several countries, communities and cultures for the purpose of harvesting relevant information among various stakeholder in a manner that will benefit disability-related research as set a database in disability issue in Africa.

Funding statement

No funding was received.

Data availability statement

Data used for this study is available upon reasonable request from the corresponding author.

CRediT authorship contribution statement

Olufemi Timothy Adigun: Writing – original draft, Visualization, Project administration, Methodology, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

On behalf of all authors, I declare that I have disclosed all competing interests related to this work. If any exist, they have been included in the "Declaration of Interests" section of the manuscript.

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