

Self-acceptance and attitude towards disability among people with disability attending a Nigerian tertiary health facility

Abstract

Acceptance of disability status and positive attitude towards disability may be modulating factors in improving quality of life of individuals with disability. Although many studies have investigated attitudes toward disability, none has evaluated personal attitude towards disability among People With Disability (PWD) in Nigeria. This study was to investigate self-acceptance and attitude towards disability among PWD in Nigeria and to examine factors influencing their attitudes. A cross-sectional design was employed to recruit 260 PWD consecutively from out-patient clinic of a tertiary hospital in Nigeria. Data were collected on participants' socio-demographic information, disability and attitude towards disability using World Health Organization Disability Assessment Schedule and Attitudes toward Disabled Persons Form A (ATDP-A) questionnaires. Descriptive and inferential statistics were used to analyse the data. Poisson regression was applied to assess factors associated with attitudes. ATDP- A score was 92.7 ± 21.1 (ranged, 34-170) with more participants (54%) having a score ≥ 90 which indicates a positive attitude and acceptance of their disabilities. Item-by-item analysis of responses to 30 items on ATDP-A Scale showed that negative attitudes were preponderant on items relating to their emotional and competitiveness. PWD largely held positive attitude towards disability and this remained unchanged when stratified by disability severity. Factors such as educational level, mild disability, younger age, type and duration of disability were associated with positive attitude held towards disability. In conclusion, PWDs largely held positive attitude, accept their disability status irrespective of disability severity though negative attitudes were more on items relating to their emotion and competitiveness.

Key words: *Acceptance, Attitude, Disability, Persons with disability, Nigeria*

Introduction

The International Classification of Functioning, Disability and Health (ICF) have defined disability as impairment in body functions and structures, activity limitations and participation restrictions caused by a health condition (WHO 2002). Majority (80%) of estimated 600 million people with various disabilities live in low-income countries (WHO 2005). In a recent study from Nigeria, 47% prevalence of disability was reported among stroke survivors (Oyewole et al. 2016). The disabilities experienced by stroke survivors have been shown to impact on their quality of life (Oyewole et al. 2016b). People with sensory disability such as glaucoma may experience vision loss which may lead not only to limitations in performing activities, but also to a loss of these activities and pose serious problem to the independence of such individuals (Alma et al. 2012; Glen and Crabb 2015). Vision impairment has been shown to restrict participation, worsen functional disability and impacted negatively on quality of life (Boerner et al. 2010; Alma et al. 2012; Shrestha and Kaiti 2014; Swenor et al. 2014; Zhu et al. 2015). In a study, lower extremity fracture patient still experienced impairment in their function six months after which impacted negatively on their quality of life especially on their physical and psychological health (Van Son et al. 2016).

Self-acceptance and attitude towards disability by People With Disability (PWD) might modulate some of the effects of disability on the sufferer. Attitudes have been defined by Nolen-Hoeksema et al. (2009) as "the cognitive and behavioural processes that involve judgment and favourable/unfavourable reactions to different aspects of disability or a given reality". These attitudes can be positive or negative, facilitating or hindering functionality. The attitudes of PWD toward themselves and others have been shown to influence those of the general public toward disability (Mattevi et al. 2012). The effects of negative attitude to disability by PWD are enormous as negative perceptions can lead to lack of opportunities and work, low self-esteem, isolation, recurring negative health outcomes that prolong the discomfort of PWDs and reduced health related quality of life as well as create a substantial social burden while PWD's positive attitude lead to improved quality of life and positive behavior (Zheng et al. 2014; Zheng et al. 2016).

Acceptance is defined by C Manchaiah et al. (2014) as "a process of actively taking in thoughts, memories, feelings and bodily sensations in a specific situation without having to follow or change them". PWD's self-acceptance of disability is the key factor in adjusting/adapting to disabling condition (Chiu et al. 2013; Kratz et al. 2013). Therefore, knowledge of self-acceptance among PWD could help improve relevant health services, facilitate positive attitude towards disability and foster social integration (C Manchaiah et al. 2014; Zheng et al. 2016).

Previous studies have focused on attitudes of the public, caregivers and health professional to disability (Scior et al. 2010; Maloni et al. 2010; Daudji et al. 2011; Satchidanand et al. 2012; Uysal et al. 2014; Vincent-Onabajo

and Malgwi 2015; Ferrara et al. 2015). Studies on PWD's attitudes to disability are few with none from Nigeria (Zheng et al. 2014; Zheng et al. 2016). This data becomes necessary especially in Nigeria where to our knowledge, none exists. Therefore, this study aimed to investigate self-acceptance and attitude towards disability among PWD attending a Nigerian tertiary hospital and also examine potential influencing factors associated with their attitudes.

Methods

Study design and participants

A cross-sectional design was employed to consecutively recruit participants from out-patient clinics of Olabisi Onabanjo University Teaching Hospital (OOUTH); [via Ophthalmology, orthopaedics, neurology and endocrinology clinics]. Included were patients with glaucoma having vision impairment, musculoskeletal disorders, diabetes having sensory disability and stroke survivors having motor disability. In all, 303 patients were recruited: Ophthalmology 72, orthopaedics 75, neurology 66 and endocrinology 90. Fourteen patients were excluded due to incomplete data and 29 were excluded from further analysis for not having at least a score of two on WHODAS scale. Two hundred and sixty PWDs with complete data were included in the analysis (vision disability 57, musculoskeletal disability 70, sensory disability 68 and motor disability 65). The inclusion criteria included: adults aged ≥ 18 years with one or more disabilities based on ICF criteria (impairment in body structure and function, activity limitation and participation restriction), having score of ≥ 2 on WHODAS scale which suggests \geq mild disability, and who gave informed consent to participate. Those who were acutely ill and not competent for interview to complete the questionnaires were excluded. Prior to data collection, Cohen's table was used to estimate the sample size with the assumption of effect size of 0.25 between the four disability groups at significant criterion of 0.05 and 80% power (Cohen 1988) which result yielded 45 PWDs from each disability group giving rise to minimum sample of 180 PWDs from the four clinics. The data were collected between March and August, 2016.

Procedure

This study was approved by the Health Research Ethics Committee of Olabisi Onabanjo University Teaching Hospital, Sagamu. Informed consent was obtained from the patients after details of nature, purpose and procedures for the study was explained to them in their best understood language and agreement to participate. Each participant's socio-demographic data and anthropometric variables were collected prior to the administration of questionnaires. The questionnaires were self-administered by those who were literate and interviewer-administered by the investigators for those who were not literate in either of English or Yoruba languages and vision impaired participants.

Instruments

World Health Organization Disability Assessment Schedule (WHODAS 2.0) was used to assess disability among the participants. It is a 12-item version self- or interview-administered that has proved to have good psychometric properties and has been described in detail elsewhere (Ustün et al. 2010; Oyewole et al. 2016b). Simple sum norm values of 1–4, 5–9, and 10–48 were used to classify survivors as being with mild, moderate, and severe disability, respectively (Andrews et al. 2009).

The Attitudes towards Disabled Persons Form A (ATDP-A) scale was used to assess the attitudes of the participants towards disability. It consists of 30-items scored on 6-point Likert scale from -3 (I disagree very much) to +3 (I agree very much). It was designed to measure attitudes toward disability in general, originally used with the general population. The items of the instrument were generated from literature review and discussion with psychologists (Yuker et al. 1970). It has 12 items with positive wording and 18 items with negative wording. By definition, a positive item is one which indicates that disabled persons are not "different" from non-disabled persons. In scoring the ATDP-A, the first step is to change the signs of the items with positive wording. Once the signs of the positive items have been changed, the algebraic sum of all the item scores is obtained. The sign of the sum is then reversed, from negative to positive or positive to negative. The total scores obtained in this fashion can range from -90 to +90. To eliminate negative values a constant of 90 is then added to make all of the scores positive. The resulting score range is from 0 to 180 with a high score reflecting positive attitudes. If more than 10 percent of the items are left blank (4 on the 30-item scale) the test is considered not scorable. If 10 percent or fewer items are omitted, the completed items are scored as usual with the customary constant added to eliminate negative values. This is equivalent to assigning a neutral value to the omitted items. ATDP-A has been shown to be reliable and have good content and construct validity (Yuker et al. 1970; Lam et al. 2010; Vincent-Onabajo and Malgwi 2015). ATDP-A scale score of ≥ 90 was used as cut-off for positive attitude (Vincent-Onabajo and Malgwi 2015).

Data analysis

Data were analysed using SPSS, version 16.0 for Windows (SPSS Inc., Chicago, IL, USA). Descriptive statistics such as mean, standard deviation, frequency and percentages were used to summarise the data. Groups' mean differences were assessed using t-test or F-test as appropriate. For categorical variables, association was assessed with χ^2 test. Poisson regression was used to assess factors that were associated with PWD's attitude towards disability. *P*-value was set 0.05.

Results

Two hundred and sixty individuals with disability aged 56.5 ± 16.6 years participated in the study. Their characteristics were as shown in table 1. There is significant difference in age ($p = 0.0001$) across the disability types. Individuals with musculoskeletal disability are younger while those with visual or motor disability are older. The scores on ATDP- A scale ranged from 34 to 170 with mean scores of $92.7 + 21.1$ which indicates a positive attitude and acceptance of their disability. Based on cut-off for the scale (≥ 90) only 54% held positive attitude towards disability. The participants largely held positive attitude towards disability and this remained unchanged when stratified by disability types except for those with motor or sensory disabilities. These held mainly negative attitude toward disability. There is significant association between the attitude held towards disability and the disability types ($P = 0.038$). Those with musculoskeletal and visual disabilities held more positive attitude towards disability than those with motor and sensory disabilities. There is also significant association between severity of disability and disability types ($P = 0.0001$). Those with motor and musculoskeletal disabilities have significantly moderate/severe disability ($P = 0.0001$) while those with visual and sensory disabilities have less or mild disability.

There is no significant association between disability severity and attitude held towards disability among the participants. Irrespective of disability severity, all participants held positive attitude towards disability (Table 2). There is no gender difference in attitude scores and no gender association with attitude held towards disability or disability severity.

Response to the 30 items on ATDP-A Scale showed that more participants held positive attitude in 18 out of 30 items. The positive attitude were reported on issues of friendliness/sociable, intelligence, self-confidence and independence, usefulness to society, need for inclusion and been ambitious (Table 3). However, more negative attitude was reported on 12 out of 30 items when the participants (individuals with disability) consider themselves different, less competitive, more emotional and worrisome (Table 4).

The results of Poisson regression analysis indicated that only factors such as educational level, occupation, mild disability, younger age, type of disability and duration of disability were associated with positive attitude held towards disability among PWD (table 5). Younger PWDs were 1.04 times more likely to hold positive attitude towards disability compared with older PWDs. Participants with mild disability were 1.04 times more likely to have positive attitude towards disability compared with severe disability. PWD of less duration of disability were 0.97 less likely to have positive attitude towards disability than those with longer duration. Participant with vision and musculoskeletal disabilities were 1.06 and 1.08 times respectively more likely to have positive attitude toward disability compared with those with sensory disability. PWD who were illiterate or having education less than tertiary education were less likely to have positive attitude towards disability compared with those who had tertiary education.

Discussion

Results from our study revealed that persons with disability largely held positive attitudes towards their disability. Despite different methods of assessing attitude towards disability, our observation is similar to that of a previous study from China which reported positive attitudes among people with disability (Zheng et al. 2016). The positive attitude held by people with disability (PWD) has great advantage not only for the PWD but also for the general public. It has been reported that the attitudes of PWD toward themselves and others were thought to influence those of the general public toward disabilities (Mattevi et al. 2012), invariably leading to positive attitudes in general public and reduction in discriminatory tendency and stigma in the society towards the disabled. The mean score of ATPD-A scale is 93 which indicate a positive attitudes and acceptance of disability. This score (93) is similar to that of physiotherapy students from Nigeria (Vincent-Onabajo and Malgwi 2015). This might suggest that health professional shared similar attitudes towards disability as in PWD in Nigeria.

Item by item analysis of ATDP-A scale helps in identifying specific perception of PWD (positive or negative attitudes) towards disability. The multi- item structure of ATDP-A scale allowed such analysis and facilitates identification of negative attitudes held for possible addressing misconception and negative attitudes (Vincent-Onabajo and Malgwi 2015). More negative attitude was reported in 12 out of 30 items. Majority of PWD held negative attitudes regarding emotional aspects of their personality. Misconceptions were revealed in responses to five out of the seven ATDP-A scale items on emotional disposition of PWD. PWD perceived themselves as more praise, affection and attention-seeking, more emotional, self-conscious and sensitive than other people. The majority of PWD also considered severely disabled persons as worrying more about their health than those with minor disabilities. These negative attitudes have far reaching implications in rehabilitating this subgroup of disability-related population. These negative emotions may hinder participation in rehabilitation and good outcome which may impact their quality of life eventually. Equally worrisome is the fact that most PWD considered themselves misfits and different compared with other people and that not much should be expected from disabled as from non-disabled persons. These unsavoury attitudes may hinder society integration and participation restriction.

It is noteworthy that most PWD held positive attitudes in 18 of 30 items like view of equality with non-disabled in terms of intelligence, ambition, confidence, success and enthusiasm. It is also encouraging that they overwhelmingly agreed that PWD are friendly, sociable, and are able to take care of themselves and contribute to the society. These positive attitudes should be reinforced and promoted during rehabilitation. This is necessary especially as some of the PWD did not share such attitudes. The difference between the majority with positive attitudes and those with negative attitudes was slight in some instances.

An important finding of this study is the association of types of disabilities with attitudes held towards disability. All except PWD having motor and sensory disabilities largely held positive attitudes. The reasons why PWD having motor disability in the present study largely held negative attitudes towards disability may not be unconnected to the severity of their disability and old age. Our data suggest that those with motor disabilities in this study have 95% moderate/severe disabilities and were older than 60 years of age. It has been observed that, even with a mild physical disability, personal attitude towards disability was unfavourable among Chinese people with physical disabilities (Zheng et al. 2014). This may suggest that PWD having motor disability like in stroke survivors with major motor disabilities should be focused during rehabilitation for attitudes modification to enhance good behaviour and outcome. This association was buttressed further with regression analysis. Participant with vision and musculoskeletal disabilities were 1.06 and 1.08 times respectively more likely to have positive attitude toward disability compared with those with sensory disabilities. However, when stratified by disability severity participants largely held positive attitudes irrespective of disability severity. Although, regression analysis suggests that participants with mild disability were 1.04 times more likely to have positive attitude towards disability compared with severely disabled. It might imply that PWD who have severe disabilities should have more attention during rehabilitation for attitudinal change.

Younger participants in the present study held positive attitudes towards disability while older age was less favourable. Younger PWD was 1.04 times more likely to have positive attitude towards disability compared with older PWD, in agreement with previous study that reported older age was associated with negative attitudes (Zheng et al. 2016). It has been observed that elders with disability suffer not only disability but also the health-related consequences of ageing, including physical, psychological, and social functional degeneration toward disability among PWD (Zheng et al. 2016). This might be responsible for our observation in the present study. Thus, policy makers and rehabilitation professionals should focus on the elderly PWD who make up the vulnerable subgroups among the disability-related population. This study showed no significant gender association with attitudes held by PWD as had been previously observed (Zheng et al. 2016). This might imply that PWD have the same attitudes towards disability irrespective of gender.

Our data suggest that the longer the duration of disability, the more the positive attitudes held towards disability. PWD of less duration of disability were 0.97 less likely to have positive attitude towards disability than those with longer duration. This was in agreement with previous studies which found significant association between duration of disability and attitudes held by PWD (Zheng et al. 2014; Zheng et al. 2016). It has been postulated that PWD with longer duration adapted to their disabilities and accepted it after a long year of living with disabilities (Zheng et al. 2016). It is also possible that they have developed coping mechanism with their disabilities. A focus group study of glaucoma patients revealed varied coping mechanism that such patients adopted in coping with their condition (Glen and Crabb 2015). This finding may imply that those with short duration of disability might hold negative attitudes. Hence, such group should be monitored during rehabilitation for mentoring and assistance.

Our results revealed that PWD who were illiterate or education level less than tertiary education were less likely to have positive attitude towards disability compared with those who had tertiary education. This is in agreement with a previous study that reported PWD with higher educational level holding more positive attitude towards disability (Zheng et al. 2016). It is likely that those who are highly educated are well informed about their disability and hence the positive attitudes they held. This may buttress the need for educating PWD about disability to enhance positive attitudes among them.

This study has important clinical implications. Although people with disabilities largely held positive attitude, negative attitudes preponderant on items relating to their emotional and competitiveness are significant determinant of outcome during rehabilitation and may impact their quality of life as earlier noted (Zheng et al. 2014). Acceptance of disability is of added advantage for their participation in rehabilitation programmes hence, all efforts should be directed at improving their emotional wellbeing towards improved outcome.

This study to our knowledge is probably the first from Nigeria that assessed the attitudes of persons with disability towards disability using a validated instrument. The results should be interpreted with caution as like in many cross-sectional studies, an observed association cannot be interpreted as causality. PWD in this study are limited to those that were attending a tertiary hospital for treatment and thus, may not be generalizable to disability-related population who are not seeking medical help.

In conclusion, people with disabilities largely hold positive attitude, accept their disability status irrespective of disability severity though negative attitudes were common on items relating to emotion and competitiveness in comparison with others. Effort should therefore be directed at improving emotional aspect of their personality during rehabilitation.

Compliance with Ethical Standards

Funding: The research is self sponsored.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

References

- Alma, M.A., Van der Mei, S.F., Groothoff, J.W., & Suurmeijer, T.P.B.M. (2012). Determinants of social participation of visually impaired older adults. *Qual Life Res* 2012, 21, 87–97
- Andrews, G., Kemp, A., Sunderland, M., Von Korff, M., & Ustun, T.B. (2009). Normative data for the 12 Item WHO Disability Assessment Schedule 2.0. *PLoS One*, 4, e8343.
- Boerner, K., Brennan, M., Horowitz, A., & Reinhardt, J.P. (2010). Tackling vision-related disability in old age: an application of the life-span theory of control to narrative data. *Journal of Gerontology: Psychological Sciences*, 65B (1), 22–31
- C Manchaiah, V.K., Molander, P., Rönneberg, J., Andersson, G., & Lunner, T. (2014). The acceptance of hearing disability among adults experiencing hearing difficulties: a cross-sectional study. *BMJ Open*, 4(1), e004066.
- Chiu, S.Y., Livneh, H., Tsao, L.L., & Tsai, T.Y. (2013). Acceptance of disability and its predictors among stroke patients in Taiwan. *BMC Neurol.*, 13, 175.
- Cohen, J. (1988). *Statistical power analysis for behavioural sciences*. (2nd ed.). USA: Lawrence Erlbaum Associate
- Daudji, A., Eby, S., Foo, T., Ladak, F., Sinclair, C., Landry, M.D., et al. (2011). Perceptions of disability among south Asian immigrant mothers of children with disabilities in Canada: implications for rehabilitation service delivery. *Disabil Rehabil.*, 33(6), 511-21.

- Ferrara, K., Burns, J., & Mills, H. (2015). Public attitudes toward people with intellectual disabilities after viewing Olympic or Paralympic performance. *Adapt Phys Activ Q.*, 32(1), 19-33.
- Glen, F.C., & Crabb, D.P. (2015). Living with glaucoma: a qualitative study of functional implications and patients' coping behaviours. *BMC Ophthalmology*, 15,128
- Kratz, A.L., Hirsh, A.T., Ehde, D.M., & Jensen, M.P. (2013). Acceptance of pain in neurological disorders: associations with functioning and psychosocial well-being. *Rehabil Psychol.*, 58(1), 1-9.
- Lam, W.Y., Gunukula, S.K., McGuigan, D., Isaiah, N., Symons, A.B., & Akl, E.A. (2010). Validated instruments used to measure attitudes of healthcare students and professionals towards patients with physical disability: a systematic review. *J Neuroeng Rehabil.*, 7, 55.
- Maloni, P.K., Despres, E.R., Habbous, J., Primmer, A.R., Slatten, J.B., Gibson, B.E., et al. (2010). Perceptions of disability among mothers of children with disability in Bangladesh: implications for rehabilitation service delivery. *Disabil Rehabil.*, 32(10), 845-54.
- Mattevi, B.S., Bredemeier, J., Fam, C., & Fleck, M.P. (2012). Quality of care, quality of life, and attitudes toward disabilities: perspectives from a qualitative focus group study in Porto Alegre, Brazil. *Rev Panam Salud Publica.*, 31(3), 188–96.
- Nolen-Hoeksema, S., Fredrickson, B., Loftus, G., & Wagenaar, W. (2009). *Atkinson and Hildegard's introduction to psychology*. London: Cengage Learning.
- Oyewole, O.O., Ogunlana, M.O., Gbiri, C.A.O., & Oritogun, K.S. (2016b). Prevalence and impact of disability and sexual dysfunction on Health Related Quality of Life of Nigerian stroke survivors. *Disability and Rehabilitation*, doi:10.1080/09638288.2016.1219395
- Oyewole, O.O., Ogunlana, M.O., Oritogun, K.S., & Gbiri, C.A. (2016). Post-Stroke Disability and its predictors among Nigerian stroke survivors. *Disability and Health Journal*, 9(4), 616-23.
- Satchidanand, N., Gunukula, S.K., Lam, W.Y., McGuigan, D., New, I., Symons, A.B., et al. (2012). Attitudes of healthcare students and professionals toward patients with physical disability: a systematic review. *Am J Phys Med Rehabil.*, 91(6), 533-45.
- Scior, K., Kan, K.Y., McLoughlin, A., & Sheridan, J. (2010). Public attitudes toward people with intellectual disabilities: a cross-cultural study. *Intellect Dev Disabil.*, 48(4), 278-89.
- Shresthaa, G.S., & Kaiti, R. (2014). Visual functions and disability in diabetic retinopathy patients. *Journal of Optometry*, 7, 37-43
- Swenor, B.K., Bandeen-Roche, K., Muñoz, B., & West, S.K. (2014). Does walking speed mediate the association between visual impairment and self-report of mobility disability? The Salisbury eye evaluation study. *J Am Geriatr Soc.*, 62(8), 1540–1545.
- Ustün, T.B., Chatterji, S., Kostanjsek, N., Rehm, J., Kennedy, C., & Epping-Jordan, J. (2010). Developing the World Health Organization Disability Assessment Schedule 2.0. *Bull World Health Organ.*, 88(11), 815-23.
- Uysal, A., Albayrak, B., Koçulu, B., Kan, F., & Aydın, T. (2014). Attitudes of nursing students toward people with disabilities. *Nurse Educ Today*, 34(5), 878-84.
- Van Son, M.A., De Vries, J., Roukema, J.A., Gosens, T., Verhofstad, M.H., & Den Oudsten, B.L. (2016). The course of health status and (health-related) quality of life following fracture of the lower extremity: a 6-month follow-up study. *Qual Life Res.*, 25(5), 1285-94.
- Vincent-Onabajo, G.O., & Malgwi, W.S. (2015). Attitude of physiotherapy students in Nigeria toward persons with disability. *Disabil Health J.*, 8(1), 102-8.
- WHO (2002). Towards a Common Language for Functioning, Disability and Health: ICF The International Classification of Functioning, Disability and Health.

World Health Organization (2005). Disability, including prevention, management and rehabilitation. Proceedings of the Fifty-eight World Health Assembly. Available from: http://www.who.int/gb/ebwha/pdf_files/WHA58/A58_17-en.pdf Accessed on 25 November 2016.

Yuker, H.E., Block, J.R., & Younng, J.H. (1970). *Measurement of attitudes toward disabled persons*. Albertson, NY: INA Men Institute at Human Resources Center

Zheng, Q., Tian, Q., Hao, C., Gu, J., Tao, J., Liang, Z., et al. (2016). Comparison of attitudes toward disability and people with disability among caregivers, the public, and people with disability: findings from a cross-sectional survey. *BMC Public Health*, 16, 1024

Zheng, Q.L., Tian, Q., Hao, C., Gu, J., Lucas-Carrasco, R., Tao, J.T., et al. (2014). The role of quality of care and attitude towards disability in the relationship between severity of disability and quality of life: findings from a cross-sectional survey among people with physical disability in China. *Health Qual Life Outcomes*, 12, 25.

Zhu, M., Yu, J., Zhang, J., Yan, Q. & Liu, Y. (2015). Evaluating vision-related Quality of life in preoperative age-related cataract patients and analyzing its influencing factors in China: a cross-sectional study. *BMC Ophthalmology*, 15,160