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Factors influencing patients' non-compliance with clinical rehabilitation services in a rural African setting

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Abstract

The study set out to determine factors influencing non-compliance with clinical rehabilitation services in a rural African setting. This was a cross-sectional study, which was exploratory in nature. Data was collected from the rehabilitation defaulters in a rural setting in Zambia. Data was collected using a semi-structured questionnaire and summarized using descriptive statistics. The chi-square test was used to test associations and the confidence interval was set at 95%. A total of 160 respondents participated in the study. The majority of the respondents (n=63) 39% were unaware of rehabilitation services. Non-compliance was highly associated with unawareness of rehabilitation services ($P < 0.01$). Distance from home was equally associated with non-compliance ($p < 0.003$). Awareness of health services provided is a very important factor contributing to compliance. Efforts to increase the compliance with rehabilitation services need to include community sensitization of rehabilitation services and improve community and family participation.

Keywords: factors, non-compliance, rehabilitation, services, rural Africa setting

1. Introduction

Rehabilitation as a dynamic process has the overall aim of reducing disability^[1]. Clinical rehabilitation is an important part of primary health services. The Primary Health Care declaration at Alma Ata^[2] expressed the need of "addressing the main health problems in the community, providing promotive, preventive, curative and rehabilitative services" to protect and promote the health of all the people". Hence, clinical rehabilitation as the process of helping a person who has suffered an illness or injury, restores lost skills to regain maximum self-sufficiency, and remains an important part of the health services provided for the population to enhance development through good health^[1]. Non-compliance with clinical rehabilitation leads to disability of an individual and currently, 15% of the world population is disabled, with disability severe enough to limit their participation in social and economical life^[3]. And of these, 80% live in low and middle income countries of Africa^[3]. Health services in Africa's rural areas are mainly primary health care serviced by the government complimented by faith based organisations.

Hospital registers in some African country show that patients do not adhere to rehabilitation services making the process unsuccessful^[4, 5]. Rehabilitation encompasses a wide range of activities in addition to standard medical care which include physical, cognitive and occupational therapy^[6]. Rehabilitation enables a person to achieve independence, social integration, economic self-sufficiency, improved quality of life and self-actualisation, besides addressing issues like the equalisation of opportunities, adaptations to the environment and the promotion and protection of human rights, and thus non-compliance to rehabilitation services prevents clients from returning to the fullest functional activity^[7]. The need for rehabilitation to be holistic in nature of approach and need to focus on both environmental and individual aspects cannot be over-emphasised^[8]. Rehabilitation should not only be provided along a continuum of care between services, it should also follow a continuum of progression in individual lives from basic outcomes like the physiological stability and prevention of secondary complications, to advanced outcomes, such as community integration and employment^[9].

Rehabilitation has an important role to play in preparing patients for employment^[10, 11]. Non-compliance of rehabilitation by patients has adverse effects as the patients end up with a disability and unable to work as before the disability bringing incidence.

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A review of the problems and difficulties experienced by patients who had been living at home for some years after a disabling stroke and their carers highlighted the diversity and range of problems [12]. Africa has not been an exception to this case [13]. Africa faces the burden of conditions requiring long term rehabilitation, including cardiovascular disorders, cancer, and anaemia accounting for a large number of the disease burden [14]. Hence, with non-compliance of rehabilitation services, there can be developmental problems due to an increased number of people who cannot contribute economically to society through agricultural or social activities in the rural areas [15].

This study set out to determine factors influencing patients' non-compliance with clinical rehabilitation services in a rural African setting. Specifically the study set out to establish patients' attitudes towards rehabilitation services, the rationale for rehabilitation services uptake in rural Africa.

2. Materials and Methods

The study was a cross-sectional and exploratory in nature. The study population was the clinical rehabilitation defaulters in one rural hospital in Zambia [4]. The rural hospital was a level two health facility classified as a general hospital with a bed capacity of 201 beds and 20 cots. The hospital had the catchment of 273,696 people and a hospital affiliated health centre (HAHC) catchment of 17,092 people.

A list of clinical rehabilitation defaulters was obtained from a rural hospital providing rehabilitation services, and a follow up was made on the defaulters. The parents of children who were on the defaulting list were included in the study as guardians. A total of 160 respondents participated in the study. Inclusion criteria in this study were having defaulted from clinical rehabilitation services from the rural hospital and residing in the hospital catchment area. The questionnaire was developed based, firstly, on a review of literature on compliance or adherence to treatment regimens and, secondly, on the experience of the researcher within the field of rehabilitation and rural practice. A semi structured questionnaire was used to collect data. The questionnaire's face and content validity was ascertained by seeking expert opinion to identify ambiguities that could be removed or questions that did not contribute to the study's purpose while reliability was assured by a pre-test study using 10 clients who had defaulted rehabilitation services at a different rural hospital in the same province. Ethical clearance to carry out the study was obtained from the Biomedical Research Ethics Committee of the University of Zambia (UNZABREC). The questionnaires were translated into the local language and those who were not able to read and write were helped.

Statistics

Data analysis was done using the Statistical Package for Social Sciences (SPSS) version 16. Chi square test was used to test association between variables and was set at 95% confidence interval.

3. Results

3.1 Socio-demographic characteristics

3.1.1 Age- The age range of the respondents was 18-70 years of age. The majority of the respondents were between 40 and 49 years old. Figure 1 presents the age range of the respondents.

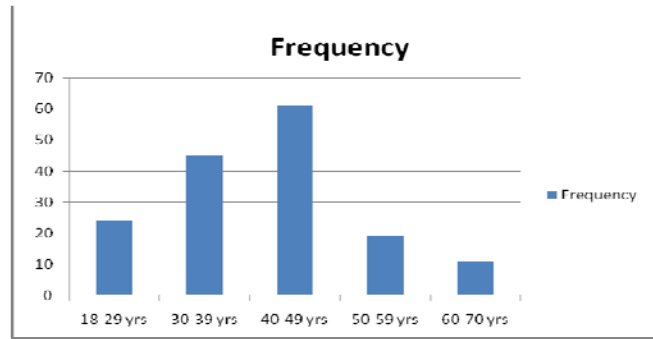


Fig 1: Age groups of the respondents

3.1.2 Social demography - Demographic details are presented in Table 1. Of the 160 respondents, 56% (n=89) were females while 38% (n=71) were married. The majority 81% of the respondents (n=129) only had primary education.

Table 1: Social demographic characteristic of the respondents

Demographic	Frequency n=160	Percentage
Sex		
Male	71	44%
Female	89	56%
Marital status		
Married	71	38%
Not married	99	62%
Educational level		
No education	18	11%
Primary level	129	81%
Secondary level	13	8%

3.2 Factors influencing patients' non compliance

The majority 39% (n=63) were unaware of the existence of rehabilitation services followed by those who resided far away from the hospital 27% (n=43). Only a few (4%) of the respondents were thought there were no consequences of non-compliance with rehabilitation services. Lacks of family or community support were important factors with 13% and 11% response respectively. A few (6%) equally thought rehabilitation services were not necessary.

Table 2: Factors influencing patients' non compliance

Factor	Frequency n=160	Percentage
Unaware of rehabilitation services	63	39%
Home far from the hospital	43	27%
Lack of family support	20	13%
Lack of community support	18	11%
Rehabilitation not necessary	10	6%
No consequences in defaulting	6	4%
Services not good	0	0

3.3 Association of the factors

The Pearson's chi-square test was used to test associations and the confidence interval was set at 95%. Non-compliance was highly associated with unawareness of rehabilitation services and patients home distance from the health centre at (P<0.01) and (P<0.03) respectively, although unawareness of rehabilitation services was associated with those who had primary education. The patient's marital status was positively associated with family support (p<0.003) but not with educational level (p>0.0671). Although there were more females in the study (56%), sex was not a factor (p=0.005).

4. Discussion

Lack of awareness of health services is a negative factor in compliance as demonstrated in the study. This finding is in agreement with other studies conducted in different setting about barriers and factor for non-compliance of health services [16, 17]. Acculturation due to unawareness of a particular service has been demonstrated to be an obstacle in accessibility of health services as it may appear to be unknown to the community. Health models have also shown that awareness of negative outcome of an event would stimulate one to take action as to protect him or herself [18]. In this study, the respondents were not aware of the services and hence did not appreciate the negative impact even. Intervention would be raising awareness about rehabilitation services with health education about the consequences of non-compliance by a multi-disciplinary health team and members of the community [18].

Accessibility has long been recognised as a factor influencing health utilization [19]. This study underscores the fact that accessibility is a real factor even in rehabilitation services. This could be made worse by not having family and community support to help with logistics encouragement [20]. Close knit communities where everyone knows everyone's situation are a source of influence to health service compliance [20]. Family and community can be a positive factor in enhancing a programme through support of encouragement, transport assistance or information especially in rural set up where health services are not near to the people [20]. This should call cheaper strategies like the national Community health worker strategy in rural areas, where community involved should be strengthened [21]. The strategy provides health providers from the same community hence providing health worker support and increase accessibility of health services in the rural.

Lack of education is an important factor which influences compliance of health services as was demonstrated in this study [22]. This call for inter-sectoral implementation of primary health care which takes social determinants into consideration including gender as women's education and economic status are limited, making them have lower status hence sidelined as they were the majority among the defaulters [23].

The study set out to determine factors influencing non-compliance with clinical rehabilitation services in a rural African setting. Of the demographic factors education played a major role in non-compliance. The study found an association between education level and unawareness of rehabilitation services which in turn was highly associated with non-compliance ($p < 0.01$). The patient's marital status was positively associated with family support ($p < 0.003$) but not with educational level ($p > 0.0671$).

The limitation of this study included the questionnaire which was not validated hence transferability is compromised.

5. Conclusion

This study sought to provide an assessment of the factors influencing patients' non-compliance with clinical rehabilitation services in a rural African setting. The study results shows that factors influencing patients' non-compliance with clinical rehabilitation services in a rural African setting include unawareness of rehabilitation services, distance from the health institution as well as lack of family and community support. Awareness of health services provided is a very important factor contributing to compliance. Efforts to increase the compliance with rehabilitation services need to

include community sensitization of rehabilitation services and improve community and family participation. This can be achieved not by rehabilitation workers alone but also by the Neighbourhood Health Committees (NHCs) and other health workers involved in the care of the clients requiring rehabilitation services through health education.

Authorship-MM (MPH, BSc PT) conceived, designed, analysed, interpreted study data and prepared the manuscript for publication.

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