Utilization of Rehabilitation Services at a Public Health Facility in KwaZulu-Natal

Jeanine D. Kisten¹, Boikhutso Tlou¹ & Thembelihle P. Dlungwane¹

¹ College of Health Sciences, School of Nursing and Public Health, Discipline of Public Health Medicine, University of KwaZulu-Natal, Howard College, Durban, South Africa

Correspondence: Thembelihle Dlungwane, University of KwaZulu-Natal, School of Nursing and Public Health, Howard College, George Campbell Building 2nd Floor, Durban 4001, South Africa. Tel: 27-31-260-4308. E-mail: dlungwane@ukzn.ac.za

Received: November 23, 2021   Accepted: January 10, 2022   Online Published: March 1, 2022
doi:10.5539/gjhs.v14n4p19          URL: https://doi.org/10.5539/gjhs.v14n4p19

Abstract

Background: Rehabilitation services are recognized as part of an essential service within all levels of care across the health system. The aim of the study was to assess the utilization of rehabilitation services at a public health facility.

Method: A cross-sectional design was implemented. Data were collected utilizing a questionnaire. A systematic random sampling strategy was used. Descriptive statistics were summarised using frequencies and binary logistic regression model was used. A p-value less than 0.05 was deemed statistically significant.

Results: Eighty-three (26.3%) participants utilized rehabilitation services. The most common reason for utilizing rehabilitation services at the public health facility was close proximity 23 (28%) whilst 18 (22%) of the participants highlighted that they had been referred to the hospital. Fifteen participants (18%) reported that they utilized the chosen health facility due to personal preference and 12 (14%) indicated that the facility was the only one they knew. Nine (11%) participants utilized the facility due to reduced transport cost incurred and six (7%) of participants chose a facility due to the perceived reduced waiting times in comparison to other facilities. Race was strongly associated with utilization of rehabilitation services.

Conclusion: The utilization of rehabilitation services in the public health facility was low. Convenience and patient referral to the hospital were the main reasons why patients chose a facility. The health professionals involved in rehabilitation services should raise awareness about the services available in the facility.

Keywords: Health services, healthcare utilization, rehabilitation services, public health facility

1. Introduction

The World Health Organization (WHO) recognizes rehabilitation as a needed health service to ensure the realization of universal health coverage. (World Health Organisation, 2018) Rehabilitation services are utilised by people across the lifespan to optimize their engagement with daily activities (Louw, Twizeyemariya, Grimmer & Leibbrandt, 2019). There is an increasing need for rehabilitation services at all levels of health care to ensure that patients are integrated well into their home environment (Caplan, 2011).

The WHO has estimated that one billion people require rehabilitation and the demand for rehabilitation services is greater in developing countries (WHO, 2019). Rehabilitation services include physiotherapy, occupational therapy, audiology and speech therapy (Kumar, 2012). The choice of selecting rehabilitation services is largely dependent on the availability of beds, geographical location of the health facility and transport (Caplan, 2011) Factors that influence a patient’s decision to utilize healthcare services and rehabilitation are dependent on cultural and social influences (Luiz J, 2004). Poverty, quality of care, availability of resources, and service delivery contributes to the utilization of health care services (Sibiya, 2013; Adam, 2014; Chia, 2014). In addition, competent human resources are crucial in promoting utilization of health services (Adam, 2014).

Rehabilitation is not an optional health service for those who live in urban areas or those that can pay for private insurance (WHO, 2019). Rehabilitation services should not be viewed as an alternative when preventive and curative interventions fail. Rehabilitation services should be accessible and affordable to all patients irrespective of their social or economic background (WHO, 2019). Furthermore, rehabilitation interventions should commence in
the early phase of in order to prevent secondary health conditions. South Africa (SA) has reported a high burden of communicable diseases and non-communicable diseases respectively. The progression of communicable diseases may cause neurological impairments, dementia, mental illness, TB of the spine, joint disease, pain and fatigue (National Department of Health, 2016). Furthermore, these health conditions often impact on one’s physical functioning and may develop impairments (National Department of Health, 2016; WHO, 2019). This means that more patients will need rehabilitation services to regain maximum function and increase their physical and environmental independence.

The demand for rehabilitation services is largely unmet due to a number of factors such as: inadequate rehabilitation services in rural settings, prolonged waiting times, shortage of assistive technologies and devices (WHO, 2019). Majority of patients in KZN seek rehabilitation care for injuries as a result of trauma, HIV-related disabilities, musculoskeletal and medical conditions. There is paucity of literature with regards to utilization of rehabilitation services in public health facilities in SA. The study purpose was to assess the utilization of rehabilitation services at a public health facility in KwaZulu-Natal (KZN).

2. Methodology

A cross-sectional survey was conducted. Patients who sought treatment at the facility’s outpatient unit were recruited. In KZN, there are 61 hospitals and 178 clinics which are operated by the public health sector. The chosen facility is a regional hospital with a bed capacity of 543. The hospital is one of the major hospitals located in a suburb in the eThekwini health district. The facility offers a comprehensive package of care and has a catchment population of over 1 500 000 which makes this facility suitable to conduct the study. The facility offers both out-patient and in-patients which includes obstetrics and gynaecology, orthopedics, surgery, intensive care, pediatrics, and medical units. Rehabilitation services consists of physiotherapy, occupational therapy, audiology and speech and hearing therapy. The rehabilitation services are subsidized up to 40% of total costs and the charges are based on one’s income. A systematic random sampling approach was used. The first participant was selected at random and thereafter every third person was selected to achieve the targeted the number. A standardised questionnaire was used. Variables measured in the questionnaire included demographic information, utilisation of rehabilitation services which includes which rehabilitation department they are coming to on that day, (iii) reasons for accessing rehabilitation services at that public health facility.

The data were coded and entered in a Microsoft Excel spreadsheet and then exported into SPSS version 27. Frequency distribution tables and graphs (bar and pie charts) were used to summarise the demographic characteristics and the distribution of the utilization of the rehabilitation services. Logistic regression was used to determine the socio-demographic characteristics associated to the utilization of rehabilitation services. The variables that were shown to be significant (p < 0.05).

The researcher obtained approval from the University of KwaZulu-Natal (BE427/18), and the KwaZulu-Natal Department of Health (KZ_2018_) Each study participant received an information sheet and provided written informed consent.

3. Results

Of the 424 questionnaires administered, 376 were adequately completed yielding the response rate of 98%. The average age of the participants was 55(SD 14.7) with majority being female (n=247; 68.4%) and aged between aged between 31 and 55 years (n=202; 57.5%). Most of the participants were employed (n=218; 58 %), utilized public transport (n=249; 76.4%) and earned between R0–R5 000 (n=125; 65%) per month. Almost half of the participants (n=176; 51.6%) resided more than 10km from the regional hospital, were Indian (n=198; 54%) and had less than a matric qualification (n=154; 43.6%). (Table 1)
Table 1. Sociodemographic profile of participants utilizing the facility (n=376)

| Demographic characteristics | Number | Percentage |
|-----------------------------|--------|------------|
| **Age (years)**             |        |            |
| (18–30)                     | 74     | 21.1       |
| (31–55)                     | 202    | 57.5       |
| (56–70)                     | 58     | 16.5       |
| (70+)                       | 17     | 4.8        |
| **Missing**                 | 25     |            |
| **Gender**                  |        |            |
| Female                      | 247    | 68.4       |
| Male                        | 114    | 31.6       |
| **Missing**                 | 15     |            |
| **Race group**              |        |            |
| Black                       | 153    | 41.7       |
| White                       | 5      | 1.5        |
| Indian                      | 198    | 54         |
| Coloured                    | 4      | 1.4        |
| Other                       | 4      | 1.4        |
| **Missing**                 | 12     |            |
| **Educational Status**      |        |            |
| Matric                      | 154    | 45.6       |
| No matric                   | 145    | 42.9       |
| Diploma                     | 24     | 7.1        |
| Degree                      | 15     | 4.4        |
| **Missing**                 | 38     |            |
| **Employment status**       |        |            |
| Employed                    | 218    | 58         |
| Unemployed                  | 127    | 33.8       |
| **Missing**                 | 31     |            |
| **Participants that reside:**|      |            |
| within 10km of the hospital | 165    | 48.4       |
| more than 10km from the hospital | 176 | 51.6     |
| **Missing**                 | 35     |            |
| **Mode of transport**       |        |            |
| Private                     | 80     | 21.3       |
| Public                      | 257    | 68.4       |
| **Missing**                 | 39     |            |
| **Income levels (in ZAR)**  |        |            |
| (0–5 000)                   | 125    | 61         |
| (5001–10 000)               | 48     | 23.4       |
| (10 001–14 000)             | 4      | 2          |
| (14 001 and above)          | 28     | 13.7       |
| **Missing**                 | 171    |            |

Figure 1 below shows the distribution of the utilization of rehabilitation services, approximately 74% of the participants were not utilizing rehabilitation services, whereas 26% were utilizing rehabilitation services.
Figure 1. Distribution of Patients’ utilization of rehabilitation services

Figure 2 below shows the various rehabilitation services used participants. Approximately, 49% of the participants were utilizing physiotherapy, 35% were using occupational therapy and 16% were utilizing speech and audiology services.

Secondly the study sought to identify reasons that influenced the participants’ decision to utilize rehabilitation services at the public health facility. Eighty-three (26.3%) of the participants indicated that they were utilizing rehabilitation services. The most common reason for utilizing rehabilitation services at the public health facility was that the facility was closest to them 23 (28%) whilst the main reason for 15 (18%) of the participants was that they had been referred to the hospital by nearby facilities. Sixteen participants (19%) reported that it was their personal preference to utilize the chosen health facility and 14 (17%) indicated that the facility was the only one they knew. Nine (11%) participants utilized the facility due to reduced transport cost incurred and six (7%) of participants chose the facility based on perceived reduced waiting times (Table 2).

Table 2. Reasons for utilizing rehabilitation services at the public health facility (n=83)

| Reasons for using public facility for rehabilitation services | Frequency | Percentage |
|-------------------------------------------------------------|-----------|------------|
| Only facility I know                                        | 14        | 17         |
| Nearest facility to me                                       | 23        | 28         |
| Reduced waiting time                                        | 6         | 7          |
| Referred to the facility                                    | 15        | 18         |
| Personal preference                                          | 16        | 19         |
| Transport cost is cheaper                                   | 9         | 11         |
Thirdly, the relationship between participants’ utilization of rehabilitation services and sociodemographic characteristics was established. Race was significantly associated to the utilization of rehabilitation services. Black participants were approximately 4 times (aOR = 4.22 [95% CI: 1.42, 12.6]) more likely to utilize rehab services when compared to other racial groups accessing the hospital. More still, participants earning between R5 001 – R10 000 were 3 times (aOR = 2.97 [95% CI: 0.52, 17.06]) more likely to utilize rehabilitation services compared to those earning more than R14000. Furthermore, participants who had matric or a higher education qualification were more likely (aOR = 1.88 [95% CI: 0.72, 4.87]) to use rehabilitation services when compared to those with an education qualification less than matric. Unemployed participants were also more likely (aOR = 1.14 [95% CI: 0.67, 1.96]) to utilize rehabilitation services when compared to the employed ones. Table 3 summarises the logistic regression for the factors associated to the utilization of rehabilitation services.

Table 3. Relationship between participants utilization of rehabilitation services and sociodemographic characteristics (n=376)

| Characteristics               | Odds ratio | CI           | Pp - value |
|-------------------------------|------------|--------------|------------|
| Gender                        |            |              |            |
| Female                        | 0.91       | 0.65 - 2.25  | 0.83       |
| Male (ref.)                   |            |              |            |
| Age                           |            |              |            |
| (18-30)                       | 0.51       | 0.03 - 10.60 | 0.67       |
| (31-55)                       | 0.46       | 0.03 - 8.42  | 0.60       |
| (56-70)                       | 0.24       | 0.02 - 6.11  | 0.39       |
| 70+ (ref.)                    |            |              |            |
| Race                          |            |              |            |
| Black                         | 4.22       | 1.42 - 12.60 | 0.01*      |
| Other races (ref.)            |            |              |            |
| Distance                      |            |              |            |
| Less than 10 km               | 2.05       | 0.79 - 5.33  | 0.14       |
| greater than 10 km (ref.)     |            |              |            |
| Income status                 |            |              |            |
| R0 – R5 000                   | 1.83       | 0.34 - 9.82  | 0.48       |
| R5 001 – R10 000              | 2.97       | 0.52 - 17.06 | 0.22       |
| more than R 14001 (ref.)      |            |              |            |
| Mode of transport             |            |              |            |
| Public                        | 0.99       | 0.34 - 2.93  | 0.99       |
| Level of education            |            |              |            |
| Matric or more                | 1.88       | 0.72 - 4.87  | 0.19       |
| No Matric (ref.)              |            |              |            |
| Employment status             |            |              |            |
| Unemployed                    | 1.14       | 0.67 - 1.96  | 0.62       |
| Employed (ref.)               |            |              |            |

*(ref): The reference for calculating odds ratio.

4. Discussion

The purpose of this study was to assess the utilization of rehabilitation services at a public health facility in KZN. The current study findings indicated that 26.3% of patients utilized rehabilitation services at the health facility. The
The utilization of rehabilitation services in the public health was low. Participants utilised rehabilitation services based on their perceived waiting times, personal preference, patient referral and geographical location to the health facility. The health professionals involved in rehabilitation should raise awareness about the availability of rehabilitation services in public health facilities.

Acknowledgements

The authors acknowledge the participants of the study.
Authors’ Contributions
JK- Principal author was responsible for the development of the conceptualisation, analysis and writing of the manuscript as part of the Master’s degree.
T.D- was responsible for supervising the entire thesis and helped in the writing of the manuscript.
BT- was responsible for data analysis.

Competing Interests Statement
The authors declare that there are no competing or potential conflicts of interest.

References
Adam, V. Y., & Awunor, N. S. (2014). Perceptions and factors affecting utilization of health services in a rural community in Southern Nigeria. Journal of Medicine and Biomedical Research, 13(2), 117-24. Retrieved from https://www.researchgate.net/publication/28137432
Alshehri, M. A., Alhasan, H., Alayat, M., Al-subahi M., Yaseen, K., & Ismail, K. (2018). Factors affecting the extent of utilization of physiotherapy services by physicians in Saudi Arabia. Journal of Physical Therapy Science, 30(2), 216-22. https://doi.org/10.1589/jpts.30.216
Buor, D. (2005). Determinants of utilisation of health services by women in rural and urban areas in Ghana. GeoJournal, 61(1), 89-102. https://doi.org/10.1007/s10708-005-1929-6
Caplan, G. A. (2011). Rehabilitation. Journal of the American Medical Directors Association, 12(1), 8. https://doi.org/10.1016/j.jamda.2010.03.008
Chia, E. H. S., Tee, W., & Tse Lin Ho, E. (2014). Expectations and perceptions of patients on the transfer of care to the primary healthcare setting. International Journal of Integrated Care, 14(9). https://doi.org/10.5334/ijic.1866
Cooovadia, H., Jewkes, R., Barron, P., Sandars, D., & Mcintyre, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. Lancet, 374(9692), 817-34. https://doi.org/10.1016/S0140-6736(09)60951-X
Grut, L., Mgi, G., Braathen, S. G., & Ingstad, B. (2012). Accessing community health services: challenges faced by poor people with disabilities in a rural community in South Africa. African Journal of Disability, 1(1), 1-7. https://doi.org/10.4102/ajod.v1i1.19
Knight, L., & Maharaj, P. (2009). Use of public and private health services in KwaZulu-Natal, South Africa. Development Southern Africa, 26(1), 17-28. https://doi.org/10.1080/03768350802640040
Kumar, S., Gautam, R., & Sitanshu Sekhar, K. (2012). Disability and rehabilitation services in India: Issues and challenges. Journal of Family Medicine and Primary care [Internet], 1(1), 69-73. https://doi.org/10.4103/2249-4863.94458
KZN, Health Department Strategic Plan. (2015). Strategic plan 2015-2019. Retrieved 2016, from http://www.kznhealth.gov.za/Strategic-Plan-2015-2019
Leibbrandt, D., Louw, Q., Twizeyemariya., & Grimmer, K.(2019). Estimating the costs and benefits of stroke rehabilitation in South Africa. Journal of evaluation in clinical practice. https://doi.org/10.1186/s12913-019-13287
Leitarts, I. (2014). The study "rehabilitation services". shs web of conferences, 10(00020). https://doi.org/10.5151/shsconf/20141000020
Luiz, J., & Wessels, M. (2004). Changes in the provision of health care in South Africa. South African Journal of Business Management, 35(3), 1-12. https://doi.org/10.4102/sajbm.v35i3.657
McLaren, Z. M., Ardington, C., & Leibbrandt, M. (2014). Distance decay and persistent health care disparities in South Africa. BMC Health Services Research, 14(1), 541-55. https://doi.org/10.1186/s12913-014-0541-1
National Department of Health. (2016). Policy framework and strategy for disability and rehabilitation services in South Africa. Retrieved from https://doi.org/10.5539/gjhs.v12n4p1
Nattrass, N., & Seeking, J. (2001). "Two Nations"? Race and Economic Inequality in South Africa Today. Daedalus, 130(1), 45-70. Retrieved from https://www.jstor.org/stable/20027679
Ogaji, D. S. (2017). Waiting time and patient satisfaction: Survey of patients seeking care at the general outpatient clinic of the University of Port Harcourt Teaching Hospital. Medical Journal, 11, 148-55.
Prosser, T. (2007). Utilization of health and medical services: factors influencing health care seeking behaviour and unmet health needs in rural areas of Kenya. https://ro.ecu.edu.au/theses/46

Sibiya, M. N., & Gwele, N. S. (2013). A model for the integration of primary health-care services in the province of KwaZulu-Natal. *Journal of Nursing Management, 21*(2), 387-95. https://doi.org/10.1111/j.1365-2834.2012.01420.x

Stellenberg, E. L. (2015). Accessibility, affordability and use of health services in an urban area in South Africa. *Curationis, 38*(1), 1-7. https://doi.org/10.4102/curationis.v38i1.102

World Health Organisation [WHO]. (2018). *Monitoring health for the SDGs, sustainable development goals*. Retrieved from http://www.who.int/gho/publications/world_health_statistics/2017/en/

World Health Organisation [WHO]. (2019). *World report on disability*. Retrieved from https://www.who.int/rehabilitation/rehabilitationguide-for-action/en/

**Copyrights**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).