Journal of Rehabilitation Research and Practice

Yakasai et al., J Rehabil Res Pract 2021; 2(1):1-3.

Short Communication

Is insufficient knowledge of epilepsy among Physiotherapists the reason for less exercise prescription for epileptic patients?

Abdulsalam Mohammed Yakasai[1,2*], Musa Sani Danazumi[3], Jibril Mohammed Nuhu[3], Mannir Kassim[4]

[1]Department of Physiotherapy, College of Health Sciences, University of KwaZulu-Natal Durban, South Africa

[2]Medical Rehabilitation Therapists Board of Nigeria, kano Zonal office, Nigeria

[3]Department of Physiotherapy College of Health Sciences, Bayero University Kano, Nigeria

[4]Medical Rehabilitation Therapists Board of Nigeria, Bauchi Zonal office, Nigeria

*Author for correspondence:
Email: abdulpeace1@gmail.com

Received date: August 18, 2020
Accepted date: December 17, 2020

Citation: Yakasai AM, Danazumi MS, Nuhu JM, Kasim M. Is insufficient knowledge of epilepsy among Physiotherapists the reason for less exercise prescription for epileptic patients?. J Rehabil Res Pract 2021; 2(1):1-3.

Participating in physical activity and exercise has significant benefits, including treating, preventing, and reducing risk factors for chronic conditions such as diabetes, hypertension, coronary heart disease, and osteoarthritis. Physical activity can also positively play a role in palliative care among individuals with terminal diseases. [1–3] Epilepsy is a chronic disease with repercussions extending beyond the negative impact of recurrent seizures. Persons with epilepsy (PWE) may also present with cognitive dysfunction and psychosocial impairment, including high rates of anxiety and depression. [4–6] It is therefore not surprising that there is a sub-optimal quality of life (QOL) in some of these subjects, given the complex interaction among seizures, adverse effects of anti-epileptic drugs, comorbidities, and stigma. Efforts to improve QOL in epilepsy should not focus merely on seizure control but rather approach different aspects of life, including both physical and psychosocial well-being. [7] Many epileptic patients are physically inactive owing to fears of exercise-induced seizures or advice given by caregivers and health professionals. [8,9] Some PWE also have concerns that seizures will make exercise unsafe. In addition, as with the general population, lack of motivation and energy from health professionals are barriers for PWE to exercise. [8,9] PWE who overcome these barriers and concerns, however, stand to benefit from physical activity in several ways, with improved cardiovascular health and reduction in diabetes mellitus prevalence among the most prominent. [10] Exercise can also counteract the effects of some anti-epileptic medications that cause bone mineral density loss. In addition, exercise among patients with epilepsy has lowered the incidence of depression and improved social integration. [11,12] Moreover, individuals with epilepsy involved in exercise programs exhibit an improved mental state, become more sociable, and improve their psychosocial functioning and quality of life. [13]

Physiotherapists are very well informed about physical activity and are conscious about the overall welfare of the physical body. They are professionals that help improve the quality of movement, physical performance, sensory awareness, response, balance, coordination, strength, and mobility and increase range of motion and sphere of movement using physical methods. [14] For this reason, PWE need physiotherapy services. Thus, fundamental knowledge on the influence of physical activity and exercise in the rehabilitation of PWE is essential for physiotherapists especially those treating epileptic patients.

The poor knowledge of epilepsy among rehabilitation professionals has been suggested as a contributing cause to the epilepsy treatment gap. [15] Proper knowledge of health professionals is difficult to evaluate and is rarely assessed. Surveys [16–20] were carried out on health professionals Physiotherapists included, but mainly evaluated their knowledge and attitude towards epilepsy. It has already been shown that health professionals lack knowledge on many neurological diseases, and our research group had conducted a study regarding the knowledge and current practice on epilepsy: Yakasai and colleagues [21] evaluated the Knowledge and current practices of Physiotherapists on the physical activity and exercise in the rehabilitation of children with epileptic seizures. The Physiotherapists (n=117) answered a questionnaire composed by three domains: "personnel information, knowledge about epilepsy, and current practice and role of physical activity in epileptic seizures.

The number of codes for the physiotherapists' knowledge and the themes that emerged was illustrated in Table 1. The codes were labeled and classified into 3 categories (sufficient knowledge, insufficient knowledge, lack of knowledge). High numbers of codes were found in the category "sufficient knowledge". When the codes for each category were summed up for judgment, there were 79.5% (n = 93) physiotherapists in the "sufficient knowledge" group, 6.0% (n=7) physiotherapists in the "insufficient knowledge" group, and 14.5% (n = 17) physiotherapists in the "lack of knowledge" group. Physiotherapists in the sufficient knowledge category had adequate awareness about the physical activity and exercise rehabilitation of PWE. Those in the insufficient knowledge category had some level but inadequate awareness about physical activity and exercise rehabilitation of PWE. Those in the lack of knowledge category had no awareness about the need for physical activity and exercise rehabilitation of children with epileptic seizures. However, the number of codes for the physiotherapists' practice and the categories that emerged were illustrated in Table 2. Just like in the knowledge section, the codes were labeled and classified into 3 categories (standard practice, substandard practice, lack of practice), with the standard group having the highest numbers of codes. When the codes for each category were summed up for judgment, there were 86.3% (n = 101) physiotherapists in the "standard practice" group, 9.4% (n = 11) in the "substandard practice" group, and 4.3% (n = 5) in the "lack of practice" group. Physiotherapists in the standard practice group had adequate management skills about the physical activity and exercise in the rehabilitation of PWE. Those in the substandard practice group had some level but inadequate management skills about physical activity and exercise rehabilitation of PWE. Those in the lack of practice group had no management skills about the need for physical activity and exercise in the rehabilitation of PWE.

Categories	Number of codes	Number of Physiotherapists
Sufficient knowledge	2325	93
Insufficient knowledge	141	6
Lack of knowledge	430	17

Table 1: Themes and Number of Codes for Physiotherapists' Knowledge.

Categories	Number of codes	Number of Physiotherapists
Standard practice	1104	101
Substandard practice	114	11
Lack of practice	47	4

Table 2: Categories and Number of Codes for Physiotherapists' Practice.

These findings indicate an important improvement in training and practice on epilepsy among the physiotherapists and, therefore, motivate the inclusion of formal programs for education in epilepsy at the undergraduate level, especially because the majority of the participants had post-graduate qualifications. Finally, some of the Physiotherapists were found to have insufficient/lack knowledge and substandard practice about epilepsy and the use of exercise to rehabilitate PWE. This lack of knowledge and substandard practice among Physiotherapists invariably leads PWE engaged in an exercise program not to achieve the so claimed benefits of exercise already described, or even to completely withdraw from participating in the exercise training.

In conclusion, Physiotherapists are considered to be among those highly educated health professionals in the society, especially with regard to clinical rehabilitation. Thus, it is important that they also have accurate and sufficient knowledge about exercise in the rehabilitation of persons with epilepsy. The findings of this study indicate that physiotherapists have sufficient knowledge about epilepsy and were using current skills/ physical activity in the rehabilitation of PWE. we wish to reinforce the importance of continuing education and training programs for Physiotherapists and other health professionals on epilepsy and physical activity.

References

1. Blair SN, Brodney S. Effects of physical inactivity and obesity on morbidity and mortality: current evidence and research issues. Medicine and Science in Sports and Exercise. 1999 Nov 1;31:S646-62.
2. Culos-Reed SN, Robinson JL, Lau H, O'Connor K, Keats MR. Benefits of a physical activity intervention for men with prostate cancer. Journal of Sport and Exercise Psychology. 2007 Feb 1;29(1):118-27.
3. Richardson CR, Mehari KS, McIntyre LG, Janney AW, Fortlage LA, Sen A, et al. A randomized trial comparing structured and lifestyle goals in an internet-mediated walking program for people with type 2 diabetes. International Journal of Behavioral Nutrition and Physical Activity. 2007 Dec 1;4(1):59.
4. Gaitatzis A, Trimble MR, Sander JW. The psychiatric comorbidity of epilepsy. Acta Neurologica Scandinavica. 2004 Oct;110(4):207-20.
5. Baker GA, Jacoby A, Buck D, Stalgis C, Monnet D. Quality of life of people with epilepsy: a European study. Epilepsia. 1997 Mar;38(3):353-62.
6. Ramaratnam S, Baker GA, Goldstein LH. Psychological treatments for epilepsy. Cochrane Database of Systematic Reviews. 2008(3).
7. Lehrner J, Kalchmayr R, Serles W, Olbrich A, Pataraia E, Aull S, et al. Health-related quality of life (HRQOL), activity of daily living (ADL) and depressive mood disorder in temporal lobe epilepsy patients. Seizure. 1999 Apr 1;8(2):88-92.
8. Drazkowski JF. Management of the social consequences of seizures. InMayo Clinic Proceedings 2003 May 1 (Vol. 78, No. 5, pp. 641-649). Elsevier.
9. Dubow JS, Kelly JP. Epilepsy in sports and recreation. Sports Medicine. 2003 Jun 1;33(7):499-516.
10. Bjørholt PG, Nakken KO, Røhme K, Hansen H. Leisure time habits and physical fitness in adults with epilepsy. Epilepsia. 1990 Feb;31(1):83-7.
11. Elliott JO, Jacobson MP, Seals BF. Self-efficacy, knowledge, health beliefs, quality of life, and stigma in relation to osteoprotective behaviors in epilepsy. Epilepsy & Behavior. 2006 Nov 1;9(3):478-91.
12. Howard GM, Radloff M, Sevier TL. Epilepsy and sports participation. Current Sports Medicine Reports. 2004 Jan;3(1):15-9.
13. Volpato N, Kobashigawa J, Yasuda CL, Kishimoto ST, Fernandes PT, Cendes F. Level of physical activity and aerobic capacity associate with quality of life in patients with temporal lobe epilepsy. PLoS One. 2017 Jul 19;12(7):e0181505.
14. Yakasai AM. The Role of Physical Therapy in the Management of

Children with Epilepsy. 2016.

15. Meinardi H, Scott RA, Reis R, On Behalf Of The Ilae Commission on the Developing World JS. The treatment gap in epilepsy: the current situation and ways forward. Epilepsia. 2001 Jan 23;42(1):136-49.
16. Fonseca LC, Tedrus GM, Costa AC, Luciano PQ, Costa KC. Knowledge and attitude toward epilepsy among health area students. Arquivos de Neuro-psiquiatria. 2004 Dec 15;62(4):1068-73.
17. Hackel K, Neininger MP, Kiess W, Bertsche T, Bertsche A. Epilepsy: knowledge and attitudes of physiotherapists, occupational therapists, and speech therapists. European Journal of Pediatrics. 2019 Oct 1;178(10):1485-91.
18. Nishina Y, Yoshioka SI. A survey of epilepsy-related knowledge, attitudes and practices of home healthcare nurses in the San-in Region of Japan. Yonago Acta Medica. 2018;61(1):019-26.
19. Vancini RL, Benedito-Silva AA, Sousa BS, da Silva SG, Souza-Vancini MI, Vancini-Campanharo CR, et al. Knowledge about epilepsy among health professionals: a cross-sectional survey in Sao Paulo, Brazil. BMJ Open. 2012 Jan 1;2(2).
20. Souza P, Portes LA, Thomas RK, Bonito JR, Rua M, Pacheco FJ, et al. Knowledge about epilepsy in university health students: A multicenter study. Epilepsy & Behavior. 2018 Feb 1;79:112-6.
21. Yakasai AM, Danazumi MS, Zakari UU, Usman IL, Abdullahi A, Shehu UT. Knowledge and current practices of physiotherapists on the physical activity and exercise in the rehabilitation of children with epileptic seizures. Epilepsy & Behavior. 2020 Mar 1;104:106891.