

Rehabilitation Problems of People with Motor Disabilities at Babylon Center for Rehabilitation of the Disabled

Mohammed Malih Radhi, Qasim Abbas Khyoosh Al-Eqabi¹, Nada Khazal K. Hindi²

Department of Community Health Techniques, Al-Furat Al-Awsat Technical University, ¹Department of Community Health Techniques, Middle Technical University, Wasit, ²Department of Basic and Medical Science, College of Nursing, University of Babylon, Hilla, Iraq

Abstract

Background: The provision of physical, psychological, and social rehabilitation becomes an important process for people with disabilities. **Objectives:** This study aimed to assess the degree of rehabilitation problems from caregiver's perspective at Babylon Center for Rehabilitation of the Disabled. **Materials and Methods:** A descriptive cross-sectional study conducted from the period from March 7th to May 4th, 2023. The study sample, consisted of 117 caregivers, is selected according to non-probability sampling approach. The validity of the questionnaire was verified by experts and its reliability was verified through a pilot study. Data were collected through the self-report techniques and analyzed by applying descriptive and inferential statistical analysis. **Results:** The results indicate that the average age of the respondents was $42.15 \pm SD = 4.39$ years; they were mostly male respondents (79.5%), the Diploma graduated (57.3%), and less than 5 years experienced (59.8%). The degree of rehabilitation problems of people with motor disabilities was high in physical and psychological, and average in social problems. There is a negative correlation between rehabilitation problems and different genders, educational levels, and years of experience for caregivers. **Conclusions:** The study concludes that rehabilitation problems in terms of physical and psychological problems are very significant and are influenced by the professional characteristics of caregivers such as gender, educational level, and experience. It is recommended that the importance of educating and training various rehabilitation care providers about the nature of disability and ways to deal with it, especially for the physically disabled is highly recommended.

Keywords: Caregivers, motor disability, rehabilitation problems

INTRODUCTION

The human element is the focus of progress and development for any society, as it is considered one of the human resources that are characterized as resources capable of thinking and choosing, and a person with disabilities is part of these human resources in all societies, and she/he is an integral part of society.^[1] People with disabilities are a segment of society, and they have a role and status that every fair and sane person values.^[2] Despite all the scientific development in the various scientific fields, the rate of occurrence of disability remains the same, because while science detects, predicts, and controls some of the causes of disability, it is the one that makes other discoveries and inventions that are motivated by challenge, but at the same time they represent causes.^[3] Therefore, a society is not devoid of disabilities of all kinds, regardless of the degree of its

development, and whatever protection and prevention measures are taken.^[4]

The services provided to people with disabilities are one of the most important social variables that contribute to determining their behavior and methods of treatment, and thus affect directly or indirectly the personality of the disabled person, her/his level of personal and social compatibility, her/his self-awareness, and her/his concept of it. Different initiatives aimed at aiding individuals with disabilities.^[5] Perhaps the increased interest in providing

Address for correspondence: Prof. Nada Khazal K. Hindi,
Department of Basic and Medical Science, College of Nursing,
University of Babylon, Hilla, Iraq.
E-mail: nadakhazal@yahoo.com

Submission: 02-Jun-2023 **Accepted:** 07-Jul-2023 **Published:** 02-Feb-2024

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Radhi MM, Al-Eqabi QA, Hindi NK. Rehabilitation problems of people with motor disabilities at Babylon center for rehabilitation of the disabled. Med J Babylon 2023;20:838-43.

Access this article online

Quick Response Code:



Website:
<https://journals.lww.com/mjby>

DOI:
10.4103/MJBL.MJBL_674_23

rehabilitation services for persons with disabilities is due to the high size of the disability problem, as the percentage of individuals with various disabilities is estimated at about 10% of the total population in any society.^[6]

In Iraq, there is a significant increase in the number of people with disabilities, clearly due to wars, accidents, and chronic diseases such as diseases of the endocrine glands and blood vessels.^[7] The rehabilitation process for people with disabilities is the duty of society and the state and their responsibility represented by official institutions.^[8] Therefore, the provision of social, psychological, medical, and vocational rehabilitation becomes an important process for people with disabilities, in order to help them adapt to society and accept themselves to become productive members and participants in the construction. Based on the importance of rehabilitation in preparing the personality of the physically handicapped, preparing them professionally, and believing in the personal capabilities and the great energy inherent in the members of this segment, many institutions have been concerned with the process of rehabilitating this segment of society. However, these services still suffer from many problems, so this study came to investigate the degree of problems facing the rehabilitation of people with mobility disabilities from the perspective of workers and the individual factors that affect these problems.

MATERIALS AND METHODS

Research design

This study relied on the descriptive cross-sectional approach, as it is the most appropriate approach to achieve its objectives. This approach is concerned with determining the current situation of the problem, then describing, analyzing, and interpreting it using statistical analysis. This was conducted for the period of March 7th to May 4th, 2023. The study population consisted of workers in the field of rehabilitation of the disabled at Babylon Center for Disability. The sample was from various specialties, including nurses, technicians, and doctors, and they were chosen on the basis of non-random sampling (purposive). Only 117 workers from various disciplines who have contact with the disabled participated in the study.

Study instruments

The study instruments consist of participants' characteristics which include participants' age, gender, education qualification, and years of experience. After reviewing the tools used in previous studies and literature, a special questionnaire was developed to identify the problems of physical, psychological and social rehabilitation for people with motor disabilities, as the number of these items reached (26) distributed over three main areas as follows:

A total of 11 items to measure physical rehabilitation problems measured on 3-level type of Likert Scale. Accordingly, points can be taken range from 11 to 33. The higher average defined as high physical rehabilitation problems.

A total of six items to measure social rehabilitation problems were measured on 3-level type of Likert Scale. Accordingly, points can be taken range from 6 to 18. The higher average was defined as high social rehabilitation problems.

A total of nine items to measure psychological rehabilitation problems were measured on 3-level type of Likert Scale. Accordingly, points can be taken ranging from 9 to 27. The higher average was defined as high psychological rehabilitation problems.

Validity and reliability

The validity of the tool was confirmed in the current study by presenting it to a number of arbitrators who are specialists in the field of rehabilitation, and there was agreement among them on the validity and readability of the questionnaire, in light of the theoretical framework on which the tool was built on the basis of which the arbitrators' honesty was satisfied. The reliability of the tool was verified by examining the internal consistency of the items of the tool by calculating the Cronbach α coefficient on a sample of 10 workers in the rehabilitation center. The reliability value on the total score was 87, and thus the tool has a high degree of reliability.

Procedures

After conducting the scholastic measures and ensuring the validity and reliability of the tools, the sample members were interviewed and oral consent was taken to participate in the study at their place of work. The questionnaire was distributed to them and they were given enough time to express their views on the rehabilitation problems they face without mentioning their names, in order to obtain frankness and seriousness in the responses.

Statistical methods

The necessary statistical processing of the data was done, and descriptive statistics were used by extracting the numbers, percentages, arithmetic means, and standard deviations of the sample. Inferential statistical methods were used, which include Pearson's correlation coefficient (r), in which the $-r$ means a negative correlation and $+r$ means positive correlation. (*) indicates statistical significance at 0.05, and (**) indicates statistical significance at 0.01.

Ethical approval

The study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki. It was carried out with patients verbal and

analytical approval before sample was taken. The study protocol and the subject information and consent form were reviewed and approved by a local ethics committee according to the document number 76 (March 2nd, 2023) to get this approval.

RESULTS

Findings shown in Table 1 indicate that the average age of the respondents was 42.15 (SD=4.39) years. The male participants were mostly predominated (79.5%), in that the Diploma graduated were recording highest (57.3%), and less than 5 years experienced (59.8%).

It is clear from Table 2 that the degree of rehabilitation problems of people with motor disabilities in the Babylon Center for the Rehabilitation of the Disabled was high (66.9 ± 10.50). It was also found that most of them were from the physical rehabilitation problems that got the highest scores (29.82 ± 4.46), whereas the psychological rehabilitation problems came in the second place (23.79 ± 3.77), as well as the social rehabilitation

came in the last rank (13.29 ± 2.97), expressing a average degree from the point of view of those working in the rehabilitation of the disabled.

It is evident from the data presented in Table 3 that a positive correlation existed between social rehabilitation problems and the ages of the workers ($r = 0.195$; $p = 0.005$). It is observed in Table 4 that their positive correlation between worker's gender and physical rehabilitation problems ($r = .345$; $P = .000$), social rehabilitation problems ($r = .543$; $P = .000$), psychological rehabilitation problems ($r = .366$; $P = .000$), and overall rehabilitation problems ($r = .438$; $P = .000$). It is observed in Table 5 that their negative correlation between worker's education and physical rehabilitation problems ($r = -.475$; $P = .000$), social rehabilitation problems ($r = -.208$; $P = .005$), psychological rehabilitation problems ($r = -.474$; $P = .000$), and overall rehabilitation problems ($r = -.439$; $P = .000$). It is observed in Table 6 that their negative correlation between worker's years of experience and physical rehabilitation problems ($r = -.783$; $P = .000$), social rehabilitation problems ($r = -.591$; $P = .000$), psychological rehabilitation problems

Table 1: Socio-demographic characteristics

Variables	Classification	No.	%
Age (years)	20–29 years old	15	12.8
	30–39 years old	13	11.1
	40–49 years old	31	26.5
	50 and older	58	49.6
	Mean = 42.15; SD = 4.39		
Gender	Male	93	79.5
	Female	24	20.5
Education qualification	Diploma	67	57.3
	B.Sc.	19	16.2
	M.Sc.	7	6.0
	PhD	24	20.5
Years of experience	<5 years	70	59.8
	5–10 years	34	29.1
	>10 years	13	11.1

Table 2: Overall rehabilitation problems

Scale	Min.	Max.	M ± SD	Score	No.	%
Physical rehabilitation problems	14	32	29.82 ± 4.46	Low (11–18.33)	7	6.0
				Moderate (18.34–25.66)	13	11.1
				High (25.67–33)	97	82.9
Social rehabilitation problems	9	17	13.29 ± 2.97	Low (6–10)	19	16.2
				Moderate (10.1–14)	58	49.6
				High (14.1–18)	40	34.2
Psychological rehabilitation problems	9	25	23.79 ± 3.77	Low (9–15)	8	6.8
				Moderate (15.1–21)	13	11.1
				High (21.1–27)	96	82.1
Total rehabilitation problems	32	74	66.9 ± 10.50	Low (26–43.33)	8	6.8
				Moderate (43.34–60.66)	13	11.1
				High (60.67–78)	96	82.1

Table 3: Association between rehabilitation problems and workers age

Correlation statistics	1	2	3	4	5
1. Age	1				
2. Physical problems	.160	1			
3. Social problems	.195*	.614**	1		
4. Psychological problems	.143	.988**	.621**	1	
5. Overall problems	.006	.971**	.778**	.972**	1

Table 4: Association between rehabilitation problems and workers gender

Correlation statistics	1	2	3	4	5
1. Gender	1				
2. Physical problems	.345**	1			
3. Social problems	.543**	.614**	1		
4. Psychological problems	.366**	.988**	.621**	1	
5. Overall problems	.438**	.971**	.778**	.972**	1

Table 5: Association between rehabilitation problems and workers education level

Correlation statistics	1	2	3	4	5
1. Education level	1				
2. Physical problems	-.475**	1			
3. Social problems	-.208*	.614**	1		
4. Psychological problems	-.474**	.988**	.621**	1	
5. Overall problems	-.439**	.971**	.778**	.972**	1

Table 6: Association between rehabilitation problems and workers years of experience

Correlation statistics	1	2	3	4	5
1. Years of experience	1				
2. Physical problems	-.783**	1			
3. Social problems	-.581**	.614**	1		
4. Psychological problems	-.768	.988**	.621**	1	
5. Overall problems	-.787**	.971**	.778**	.972**	1

($r = -.768$; $P = .000$), and overall rehabilitation problems ($r = -.787$; $P = .000$).

DISCUSSION

The degree of rehabilitation problems of people with motor disabilities in the Babylon Center for the Rehabilitation of the Disabled was high (66.9 ± 10.50). It was also found that most of them were from the physical rehabilitation problems that got the highest scores (29.82 ± 4.46), whereas the psychological rehabilitation problems came in the second place (23.79 ± 3.77), as well as the social rehabilitation came in the last rank (13.29 ± 2.97), expressing a average degree from the point of view of those working in the rehabilitation of the disabled. These results agreed with study from Canada, Greece, and Poland.^[9-11] This may be due to the fact that physical rehabilitation needs good planning and implementation, specialized cadres, materials, and tools that, in turn, help in the development of rehabilitation services according to

the severity and type of disability and push the disabled person to be psychologically motivated and socially receptive to the rehabilitation stage.

The psychological and social rehabilitation programs are complementary programs to each other that require a lot of time and effort of the workers in these centers, and they need more individuals who are able to persuade and work to improve the psychology of the disabled and work to make him accept himself and make the community receptive to this, so they consider it one of the most important programs.

Among the results, it was noted that the problems of social rehabilitation are directly related to the age of the respondents. This direct correlation indicates that the greater the age of the workers in the field of rehabilitation, the greater these problems. It is necessary to rely on young energies in those centers that provide rehabilitation for the disabled. On the other hand, there are difficulties in rehabilitating people with disabilities according to their

age. Older people with disabilities do not have the ability to adapt to rehabilitation programs.^[12] So the matter is not limited to rehabilitative care providers.

It is observed that their negative correlation between worker's gender and rehabilitation problems. It has been noted that a distinct negative correlation exists between the gender of workers and the occurrence of rehabilitation problems. To put it simply, this negative correlation suggests that as the proportion of female rehabilitative care providers increases, there is a corresponding rise in the frequency of rehabilitation issues, and conversely. It can be justified that women are more susceptible to tension and stress, so such services must rely on men. In agreement with findings from Turkey.^[13] in Japan, reliance on men in rehabilitation is more than women, because women are less tolerant of pressure.^[14] Additionally, the relationship between the disabled and caregivers of male is better than that of female caregivers in Canada.^[15]

The results of the current study showed that there is a negative correlation between rehabilitation problems and different educational levels of caregivers. Also, a higher educational level is a significant reduction in rehabilitation problems. Rehabilitation problems can be high in our study because most caregivers have a diploma degree. Decision makers and policy makers on the basis of care for the disabled should rely on highly educated caregivers.^[8] Rehabilitation and vocational training programs provided for the physically handicapped need to identify training needs and available jobs, and make adjustments in the appropriate environment for training and work.

In the same line with the educational levels, where the years of experience had a negative impact on the rehabilitation problems, so the more years of experience, the fewer the rehabilitation problems facing caregivers. Lack of experience and low educational levels are barriers in providing services for children with disabilities.^[16,17] Because of the lack of experience and educational levels, the lack of clear communication with clients was a major problem in the rehabilitation program in Canada. Clients were grateful for the sense of community within the program, but noted a lack of awareness after exiting.^[18] More importantly, the successful implementation of rehabilitation for the disabled requires the establishment of a working relationship between service providers to increase the service provider's knowledge of the condition of the disabled.^[19-22] It is necessary to hold workshops to train workers in rehabilitation centers on professional and educational methods specialized in how to deal with people with motor disabilities.

In the light of these results, the study came out with a set of recommendations represented in calling for the development of vocational training programs for those in charge of caring for the physically disabled that are compatible with the requirements of the labor market,

and moving to subsidized employment programs that provide support for the disabled in the work environment. We also highlight the training of workers on methods of dealing with people with mobility disabilities in terms of physical, psychological, and social rehabilitation.

CONCLUSIONS

The study concluded that rehabilitation problems in terms of physical and psychological problems are very significant and are influenced by the professional characteristics of caregivers such as gender, educational level and experience. It is recommended that the importance of educating and training various rehabilitation care providers about the nature of disability and ways to deal with it, especially for the physically disabled is highly recommended.

Acknowledgment

The authors thank the caregivers and Babylon Rehabilitation Center for their help in collecting the data in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. World Health Organization (WHO). WHO Library Cataloguing-in-Publication Data. WHO global disability action plan 2014-2021: Better health for all people with disability. Geneva: WHO.
2. Adenanthera LD, Nurul I, Izza M. Sheltered workshop model on social protection and empowerment of people with disabilities (PwDs) to prepare competitive human resources in the era of the ASEAN economic community. *Int J Innov Creativity Change* 2020;12:682-99.
3. Fitzmaurice C, Akinyemiju TF, Al Lami FH, Alam T, Alizadeh-Navaei R, Allen C, *et al.* Global, regional, and national cancer incidence, mortality, years of life lost, years lived with disability, and disability-adjusted life-years for 29 cancer groups, 1990 to 2016: A systematic analysis for the global burden of disease study. *JAMA Oncol* 2018;4:1553-68.
4. Kassebaum NJ, Smith AG, Bernabé E, Fleming TD, Reynolds AE, Vos T, *et al.* Global, regional, and national prevalence, incidence, and disability-adjusted life years for oral conditions for 195 countries, 1990–2015: A systematic analysis for the global burden of diseases, injuries, and risk factors. *J Dent Res* 2017;96:380-7.
5. Fleming AR, Oertle KM, Plotner AJ, Hakun JG. Influence of social factors on student satisfaction among college students with disabilities. *J College Student Dev* 2017;58:215-28.
6. Mactaggart I, Kuper H, Murthy GV, Sagar J, Oye J, Polack S. Assessing health and rehabilitation needs of people with disabilities in Cameroon and India. *Disabil Rehabil* 2016;38:1757-64.
7. Radhi MM, Abd RK, Al Eqabi QA. The body image and its relation to self-esteem among amputation patients at Artificial Limbs Hospital at Kut City, Iraq. *J Public Health Afr* 2022;14:1228.
8. Juma Elywy G, Radhi MM, Khyoosh Al-Eqabi QA. Social support and its association with the quality of life (QoL) of amputees. *Iran Rehabil J* 2022;20:253-60.
9. Kehayia E, Swaine B, Longo C, Ahmed S, Archambault P, Fung J, *et al.* Creating a rehabilitation living lab to optimize participation and inclusion for persons with physical disabilities. *Alter* 2014;8: 151-7.

10. Lazarou I, Nikolopoulos S, Petrantonakis PC, Kompatsiaris I, Tsolaki M. EEG-based brain-computer interfaces for communication and rehabilitation of people with motor impairment: A novel approach of the 21st Century. *Front Hum Neurosci* 2018;12:14.
11. Henrykowska G, Soin J, Siermontowski P. Scuba diving as a form of rehabilitation for people with physical disabilities. *Int J Environ Res Public Health* 2021;18:5678.
12. Clark JH, Yeagle J, Arbaje AI, Lin FR, Niparko JK, Francis HW. Cochlear implant rehabilitation in older adults: Literature review and proposal of a conceptual framework. *J Am Geriatr Soc* 2012;60:1936-45.
13. Karahan AY, Kucuksen S, Yilmaz H, Salli A, Gungor T, Sahin M. Effects of rehabilitation services on anxiety, depression, care-giving burden and perceived social support of stroke caregivers. *Acta Medica* 2015;57:68-72.
14. Yada H, Abe H, Omori H, Matsuo H, Masaki O, Ishida Y, *et al.* Differences in job stress experienced by female and male Japanese psychiatric nurses. *Int J Ment Health Nurs* 2014;23:468-76.
15. McMurray J, McNeil H, Lafortune C, Black S, Prorok J, Stolee P. Measuring patients' experience of rehabilitation services across the care continuum. Part II: Key dimensions. *Arch Phys Med Rehabil* 2016;97:121-30.
16. Resch JA, Mireles G, Benz MR, Grenwelge C, Peterson R, Zhang D. Giving parents a voice: A qualitative study of the challenges experienced by parents of children with disabilities. *Rehabil Psychol* 2010;55:139.
17. Maddocks S, Moodley K, Hanass-Hancock J, Cobbing S, Chetty V. Children living with HIV-related disabilities in a resource-poor community in South Africa: Caregiver perceptions of caring and rehabilitation. *AIDS Care* 2020;32:471-9.
18. Campbell DJ, Coll N, Thurston WE. Considerations for the provision of prosthetic services in post-disaster contexts: The Haiti Amputee Coalition. *Disabil Soc* 2012;27:647-61.
19. Sobti N, Park A, Crandell D, Smith FA, Valerio I, Lozano-Calderon SA, *et al.* Interdisciplinary care for amputees network: A novel approach to the management of amputee patient populations. *Plastic Reconstr Surg Global Open* 2021;9.
20. Al-saadi MA. Chronic orofacial pain management: A narrative review of pharmacological and promising therapy. *Med J Babylon* 2023;20:24-7.
21. Albadri AM, Al-Diwan JK. Effect of carbohydrate intake on glycemic control among adult patients with type 2 diabetes mellitus attending diabetes and endocrine diseases center in Babel, 2022. *Med J Babylon* 2023;20:41.
22. Ali RA, Radeef SM, Mohammed NB, Diab BS. Oral health-related quality of life among dental implant patients in relation to temporomandibular joint function. *Med J Babylon* 2022;19:609.