

Needs Assessment of a woman with disability after completing the rehabilitation program from Centre for the Rehabilitation of the Paralysed and possible solutions through bio-psychosocial model: A case study

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ABSTRACT

Introduction: This case was described about a woman with disability, caused of rheumatoid arthritis. This study focused on what sorts of barriers and problems a disabled woman has to face in practical situation of her life though she has completed her rehabilitation program. Throughout this study, it was suggested that, Bio-psychosocial model would be integrated with the Rehabilitation program to meet the identified needs and to cope with the life of a disabled. **Case Report:** A 42-year-old woman who suffered from Rheumatoid Arthritis had taken treatment from Centre for the Rehabilitation of the Paralysed (CRP) several years ago. Nowadays, she is working at CRP by using her wheel chair. However, she needs lots of support at her daily life. Moreover, people are not still too much open to accept the disability and be helpful towards the disabled person. That is why she felt de-motivated sometimes with her life. **Conclusion:** There

would have some needs of patient, even after completing the Rehabilitation program. Needs assessment helps to determine those needs. Bio-psychosocial model would be helpful to make the rehabilitation program more effective. However, more research-based evidence is necessary and the health professionals need to know the framework and application of the bio-psychosocial model.

Keywords: Bio-psychosocial model, Disability, Needs assessment, Rehabilitation

How to cite this article

Nipa SI, Khan MMKR. Needs Assessment of a woman with disability after completing the rehabilitation program from Centre for the Rehabilitation of the Paralysed and possible solutions through bio-psychosocial model: A case study. *Edorium J Disabil Rehabil* 2016;2:138–143.

Article ID: 100021D05SN2016

doi:10.5348/D05-2016-21-CR-17

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Received: 09 September 2016

Accepted: 13 October 2016

Published: 05 November 2016

INTRODUCTION

World Health Organization (2011) stated that 10% of the population is disabled in the developing countries. In our country, there are many disabled people having physical, mental, speech or hearing impairments [1]. Disability affects directly or indirectly the quality of life

such as health, personal safety, independence, ability to earn money, accessibility of transport and other materials [2].

Hamilton and Mylks (1992) stated that person with disability have to deal with stressful situations in their everyday life such as personal health, medical care, family life, work, leisure and community involvement [3]. Disability has also great dissatisfaction, which has a negative impact on their life [4].

Needs Assessment is the process of identifying and measuring areas for improvement in a target group of people, and determining the methods to achieve improvements [5]. Needs assessment helps to determine whether performance deficiency result from a lack of knowledge, skill, behavior or ability or from a motivational or work design problem. Through the Needs assessment of the rehabilitation program, can be identified what sorts of barriers a disabled person has to face in practical situation of his life.

Rehabilitation is the process, which aims to maximize the person's abilities in physical, mental, intellectual, functional and social cases [6]. It is well known that persons with disabilities frequently live in dreadful conditions and face physical and social barriers, which prevent their integration and full participation in the community. Ignorance, negligence, superstition, fear, lack of scopes and limited program interventions are social factors that have isolated the disabled people from community life [6]. Disability occupies a low priority for the policy makers in the government. There are several models of rehabilitation to solve these problems, which are charity model, medical model, social model, psychological model, human rights model and bio-psychosocial model. Among them, it has considered that Bio-psychosocial model would be integrated with the rehabilitation program, because this model includes the medical (biomedical), psychological and social models of health. It does not reduce disability to one aspect [7]. Specific relevant target problems with multidisciplinary team can be identified throughout the bio-psychosocial model. This model can be also helpful to identify those factors which cause or contribute to the problems to provide most appropriate intervention and define team role and reasoning for intervention. However, team members need to learn about the uses of bio-psychosocial model.

We have selected a woman affected by disability due to rheumatoid arthritis. According to my case of interest, though she has completed the rehabilitation program but she still deals with barriers at her day-to-day life such as she needs caregivers to do her daily activities, has to face negative attitudes from the surrounding people, lack of self-motivation, etc. For that reason, she sometimes feels de-motivated with her life. In this situation, it is necessary to identify the barriers through Needs Assessment. To overcome those barriers for further cases,

bio-psychosocial model would be included along with the rehabilitation program.

It is important to interact between the physical and social environments to provide proper accessibility to the person with disabilities. These disabled people have to be experienced particularly negative effect on the educational attainment, employment and emotional state. Disability also affects their personal, family and social life. However, disabled women are more sufferers from negative attitudes than men, which results in critical adverse effect on their psychological and social health [6]. According to my case during the complication of her disability, she had taken treatment from different health professionals, but proper discussion among team members was not maintained. She had given a wheel chair without involving her at the decision making of selection of the equipment. At the time of her treatment, she was not even informed about her prognosis. Therefore, she was depressed and de-motivated towards the rehabilitation program what she had received. Moreover, she had been facing many negative attitudes from the surrounding people. Therefore, in that sense she had covered only medical or biological treatment aspects rather than an ideal rehabilitation program.

In 1995, the government of Bangladesh formulated a national policy for the disabled person, based on the prevention, treatment and rehabilitation without considering the social aspect. As a result, policy does not have impact to remove the physical barriers, which also restrict the participation of physically impaired people [8]. Wolfe and Hawley (1998) has done a longitudinal, long-term prospective study, conducted on a large cohort of considered for work disability and found that about 9.6% never worked for salary [9]. All the males and 87.3% of the females had been employed with the salary. Work discontinuation was reported 37.7%.

Bangladesh government adopted a policy of 10% quota for employment of disabled people [10]. However, policy has not yet implemented. Therefore, until today less than 1% disabled people involved in paid employment [11]. In this situation, collaborative communication between the health professionals and patients, behavioral counseling, self-efficacy and comprehensive support to the person with disabilities can ensure an effective rehabilitation of person with disabilities [12].

When a body becomes disabled, the physical aspects of disability influence the appearance and response to rehabilitation. Patient's beliefs about themselves, their illness, disability and the outcomes contribute to their experience of disability and rehabilitation. The social context of their life such as the physical environment and societal responsibilities may influence the way they feel emotionally and physically [7]. Bio-psychosocial model requires an understanding of the patient's perception about their disability or impairment. As the rehabilitation is the physical, mental, economical and social well-being,

so bio-psychosocial model would be the ideal one to overcome the barriers that disabled person has to face during and after completing the rehabilitation program. This model will help to design a treatment plan according to considering the patients health condition, expectations, values, believes, social context, cultural values etc. This will help to provide the evidence based treatment and advice for the patient.

CASE REPORT

A 42-year-old female suffered from the rheumatoid arthritis and had taken treatment from Centre for the Rehabilitation of the Paralyzed (CRP) several years ago. At her childhood, she had suffered from the rheumatic fever. Then, she went to the rheumatologist, took some injections, and get well. After that, she had passed a long way of her life and completed her graduation. Unfortunately, she had an accident and her femur fractured. At that time, she had to take long time bed rest. As a result, gradually her joints affected and felt severe pain. Then she came at CRP. However, she had taken treatment, but she was not satisfied with her condition as it was deteriorating. As a result, she had gone to the India for better management. There, also she did not get too much improvement. Therefore, she again came at CRP and continued her treatment. In the mean time, she had taken some ayurvedic treatment and felt better. However, her gait pattern was totally abnormal as well as severe painful. Therefore, the responsible therapist advised her to use wheel chair. Nowadays, she is working at CRP by using her wheel chair. However, she needs lots of support at her daily life. Moreover, people are not still too much open to accept the disability and be helpful towards the disabled person. That is why she felt de-motivated sometimes with her life.

DISCUSSION

It was based on practical data collection procedure through the face-to-face interaction with woman with disability. Several open-ended questions were asked. These questions were asked to know about the rehabilitation program that she had taken from the CRP. The aims behind those questions included the impact of the rehabilitation program on her life. Throughout the questionnaire, the level of satisfaction and barriers that she has faced in her daily life, tried to identify. However, some recommendations to overcome those barriers also explored through these questions.

Throughout the interview, it has been identified that the disabled women is not satisfied with her life for various reasons. On the entire interview, she focused on various barriers that she has to face always though she had completed her rehabilitation. As she is a rheumatoid

arthritis patient, so her joints range of motion gradually decreased and she cannot actively move by using wheelchair. In the activity of daily living she sometimes, seeks help of her maid, which did not make a good feeling of a good quality of life. She also mentioned that, she is satisfied with that she earned, but there in not availability of job for people with disabilities, so in that sense she is bound to do the job that she has been doing right now. Therefore, she has to stay away from her home. That is why sometimes she felt upset. Due to her disability, she cannot engage in married life, which makes her upset because still our society cannot keep a broad mind to accept disabled women. She also faced barriers in case of accessibility of roads and transports.

The participant went to detail about her problems or barriers that she might face in daily life and suggested many recommendations about how these problems can be solved. The participant focused on the treatment, physical activities, family, income, government help, non-government help and job opportunity. She has also given value to her personal role in the family and society to improve their surrounding environment as well. She mentioned that the follow-up of the rehabilitation program, especially the intervention program is necessary to keep the effectiveness of it. Throughout the follow-up sessions, the further difficulties of the disabled people would identify. Therefore, the further suggestions would also provide towards the disabled to live a better life. According to the participants' opinion, it has been identified that, though it is a rehabilitation organization but without spinal cord patient, we may not appropriately able to provide our rehabilitation service. In that sense, most of the time we used to with the medical model.

According to the social context, she said, "Some people neglect me. If they would take this disability easily, and keep their mind broad, then I can go forward." She has also said, "I had to hear a lot of from my neighbors" so it also seems that, this negligence makes her emotionally weak. Therefore, it is necessary to keep her cheer up through psychological support, which will suit with the bio-psychosocial model. She also said, "If the government would take positive steps to improve roads and accessibility of job facilities, then it would be better for me to lead a good quality of life."

In the charity model, disability is considered as a curse of disabled people or punishment. According to this model, it has thought that disabled people are responsible for their own disability [13]. The donors who donate at the charitable organization they have given priority in decision making about further aspect of their life, whereas throughout the bio-psychosocial model disabled people values, beliefs, expectation can improve their self confidence and contribute to the participation of the rehabilitation program.

In the medical model, body, health, disease, illness and effective treatments are considered for the person with disability [14]. However, in case of proper

rehabilitation of a disabled person, it is necessary to consider the psychological and social aspects of that person. Therefore, in that sense Bio-psychosocial model is suitable to rehabilitate a person with disabilities.

Social model is also known as environmental model. Here society creates the disability [15]. However, it is necessary to rehabilitate a person with disabilities considering the health management, psychological management, empowerment and education.

Citizenship or human rights model are also used to overcome those barriers. In this model, the desired outcome is equal rights and participation [16]. However, throughout the bio-psychosocial model, it is possible to integrate a person with disabilities in the mainstream, so it also ensures the social rights of that person. It also seems that human rights model goes through the bio-psychosocial model.

In the psychological model, it has considered the patients values, beliefs and expectations about their disease [17]. Psychology is one of the matters of rehabilitation, which might be also covered by the bio-psychosocial model. Therefore, we can solve the biological, psychological and social rehabilitation through the Bio-psychosocial model.

We know that needs assessment focuses on some of the basic components of life based on fulfillment of them. It was laid stress on physical, mental, economic, recreational, accessibility and other social factors by which quality of life is determined. Therefore, comparing with the different model, it has recognized that to rehabilitate a disabled person, bio-psychosocial model would be more suitable because it considered the patient's expectations about their rehabilitation. This model also considered the psychological and social context, which would have an impact on their life. If we can consider this model in our rehabilitation program for further cases, then it would be more beneficial for the disabled to live a good quality of life.

CONCLUSION

Disability models interplay between the biological or medical, social and psychological systems. To have effective clinical practice rehabilitative health care, professions must be aware of all these aspects and how they affect the patient. Rehabilitation practitioners need to consider the patients' values, expectations, and social context of their life. It is very difficult to be strict in one rehabilitation model. As biological, psychological and social models overlapped with the bio-psychosocial model, however, human rights model solve those factors, which the person with disabilities faced at medical and social context. Therefore, this model is also interacting with Bio-psychosocial model. From this study, it has been identified that lack of providing proper rehabilitation services, lack of follow-up of the intervention. In

accessible home and surrounding environment, lack of transport facilities, negative attitudes of the surrounding people, which might be not preventable always, can affect to maintain a good quality of life and successful rehabilitation. The government and nongovernment organizations can play an important role by providing awareness, accessible environment and employment to contribute a good quality of life. Throughout the procedure it has also identified that though bio-psychosocial model is helpful to do the needs assessment of the rehabilitation program, more research based evidence are necessary to properly do the assessment of the persons with disability through the bio-psychosocial model. As the health, professionals need to learn new framework and to know the application of the bio-psychosocial model.

Acknowledgements

We are thankful to our parents, Md. Alamgir Chowdhury, Md. Shofiqul Islam, Reshma Parvin Nuri, for their help in preparing the manuscript.

Author Contributions

Shamima Islam Nipa – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Mohammad Mustafa Kamal Rahat Khan – Substantial contributions to conception and design, Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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Article citation: Nipa SI, Khan MMKR. Needs Assessment of a woman with disability after completing the rehabilitation program from Centre for the Rehabilitation of the Paralysed and possible solutions through bio-psychosocial model: A case study. *Edorium J Disabil Rehabil* 2016;2:138–143.



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