The application of life-rebuilding based occupational therapy practice model in community rehabilitation

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Abstract: Reconstructing life as the basis of occupational therapy practice is a set of recovery of physical function, improve life ability and happiness ability as one of the new concept of rehabilitation proposed by Hong Kong senior occupational therapist Professor Liang, the main goal is to rebuild the patient's life will, life ability and lifestyle. This paper believes that this model can play a good role in community rehabilitation. This model is to help the sick and disabled recover their physical functions by taking certain measures to rebuild life and work in the community, and to help them regain confidence and return to society to the greatest extent. This paper aims to summarize and analyze the conceptual framework and application paradigm of the life-rebuilding model in the process of community rehabilitation therapy, sort out the treatment experience and improve the concept of community rehabilitation, and provide new ideas for the clinical practice of community rehabilitation occupational therapy.

1. Introduction

Based on the concept and practice of life reorganization¹, the practice model of reconstructing life is formally proposed by Professor Liang, a senior occupational therapist in Hong Kong. With multi-dimensional content and novel viewpoints, many theoretical principles and framework structures can be flexibly applied in the whole process of community rehabilitation to help patients carry out scientific, appropriate and effective rehabilitation treatment. This kind of occupational therapy practice model makes full use of the advanced theoretical research results of occupational therapy at home and abroad, reasonably draws on the relevant practice model, and gives new thinking and new understanding. This study has a relatively comprehensive development in Hong Kong and is forward-looking and strategic to some extent². The main goal of community rehabilitation is to use rehabilitation function assessment, physical therapy, occupational therapy and other means to help disabled people recover their physical functions as much as possible, improve their quality of life, and promote the development of a more inclusive community in the unique geographical and cultural environment of the community. However, the application of life-rebuilding based occupational
therapy practice model in the process of community rehabilitation is relatively rare, and the research in related fields at home and abroad is even more scarce. In addition, the focus of community rehabilitation is mostly focused on the basic movement, physical recovery and functional exercise of the sick and disabled, and there is little about the reshaping of the life style, life will and life ability of the sick and disabled. It can not highlight the real connotation of community rehabilitation practice and guiding significance. Through the analysis and research of relevant literature, this paper aims to summarize the specific forms and reference structures that fully embody the reconstruction-based concept model in community rehabilitation, and further promote the application of the reconstruction-based occupational therapy practice model in community rehabilitation.

2. Rebuild the life-based practice model

The practice model of reconstruction-based occupational therapy is based on the occupational classification theory of American scholar Professor Charles Christiansen[3] and the "healthy occupational view” [4] of Australian senior occupational therapist Professor Ann Wilcock. A new model based on the "bio-psycho-social" modern medical model. It analyzes advanced occupational therapy theoretical framework at home and abroad, emphasizing that patients should be centered in the whole process of treatment, and on the basis of the recovery of corresponding functions, reasonable training methods more close to life should be added, the existing and re-learned basic functions should be transformed into corresponding life ability through certain ways and means, and the sick and disabled can regain confidence. It can achieve the purpose of rebuilding the life will and lifestyle, which has a high reference value for the rehabilitation training of patients [5].

The life-rebuilding oriented occupational therapy practice model focuses on the concept of "three-in-one" emphasizing the reconstruction of patients' life, life will and lifestyle [6]. The specific contents include the ability ladder, the reconstruction process of three-in-one occupational therapy, the core means of occupational therapy, the eight elements of occupational therapy items of reconstruction of life, and six steps of reconstruction of life [7]. Among them, the core means of occupational therapy also include life-rebuilding interviews and environmental adjustment, which emphasize that the sick and disabled can rebuild their life will, life ability and lifestyle through the corresponding expression forms of occupational therapy at each stage of treatment, and help them pursue new life goals with contributions and significance, and finally achieve the ultimate goal of physical and mental health.

3. The specific application of the practice model of reconstructing life-based occupational therapy in community rehabilitation

The core concept of the life-rebuilding occupational therapy practice model is to rebuild life will, life ability and life style, and the occupational therapy activity paradigm runs through the community rehabilitation with the goal of returning to life [8]. Community rehabilitation focuses on community-based rehabilitation, requires low cost, wide coverage, emphasizes the active participation of rehabilitation objects and their families, and improves their quality of life and rebuilds their will to live in the active and effective rehabilitation process. This coincides with the view of reconstructing the practice model of life-based occupational therapy. The whole process of community rehabilitation can make full use of the relevant framework of the reconstruction life based occupational therapy practice model, so as to help patients recover their physical functions and help them return to society to the maximum extent. For example, targeted occupational therapy measures in the community can help patients with spinal cord injury to reposition their own value, adapt to the environment and improve the environment to the maximum extent [9]. For the community rehabilitation of patients with chronic stroke, trunk control training techniques and core muscle strength training techniques are
adopted to improve the self-confidence of patients and reflect the ability levels of patients at different stages in a relearning process\textsuperscript{[10,11]}. In the community rehabilitation of aphasia patients at different stages, speech pathologists are introduced to carry out education and corresponding intervention measures, so as to promote the recovery of their cognitive and speech functions and help them learn a new lifestyle\textsuperscript{[12]}.

Community rehabilitation extensively includes the relevant theoretical framework of the practice model of reconstruction-oriented occupational therapy, which is mainly reflected in the aspects of ability ladder, the six steps of reconstruction-oriented life, interviews, environmental adjustment and occupational therapy programs, etc., so as to help patients recover the activity ability of limbs, master new methods of self-care, regain confidence and establish a new lifestyle. The above five points of reconstruction-based occupational therapy practice can be well applied in community rehabilitation.

3.1 Rebuild life as a ladder of competence

The concept of "ability ladder" in the practice model of reconstructing life based occupational therapy can be well applied in the whole process of community rehabilitation. According to different stages of patients, the "ability ladder" is divided into three levels of biological, personal and social abilities from low to high\textsuperscript{[13]}, which fully corresponds to the relevant contents of the "bio-psychosocial" medical model.

Firstly, biological ability is mainly concerned with the physiological function, organ structure and functional level of the treatment object. In community rehabilitation, professional teams such as community rehabilitation physicians, rehabilitation therapists and rehabilitation nurses help the service and treatment object to carry out correct posture and passive activities of joints and soft tissues. The use of appropriate braces, pressure clothing and appropriate manipulative forms for rehabilitation function training can play a good role in the community rehabilitation of neurological diseases, bone and joint diseases. Domestic studies have shown\textsuperscript{[14-16]} that the use of bee acupuncture combined with Bobath handshake and the introduction of Brunnstrom technology in the treatment process in community rehabilitation of stroke are conducive to improving the motor and neurological functions of patients with hemiplegia caused by stroke, and have unique prognostic effects and rehabilitation outcomes. The application of Bobath, Brunnstrom and other neurodevelopmental technologies in the whole process of community rehabilitation can achieve the purpose of controlling key points, stimulating inherent and surface receptors, and promoting voluntary movement through postural placement and passive activities, which can better help community rehabilitation workers effectively deal with patients with neurological diseases. The biological concept of the ability ladder can also be applied to bone and joint diseases. For example, for the community rehabilitation of patients with rotator cuff injury\textsuperscript{[17]}, medical gymnastics task activities are introduced in the treatment process to help patients better recover their physical functions through corresponding exercise instructions.

Secondly, personal ability mainly focuses on the patient's task skills and life skills, and its application in community rehabilitation is mainly reflected in helping the patient to re-learn and master life skills through task form activity training and part of operation form training. For community rehabilitation of postpartum low back pain\textsuperscript{[18]}, corresponding task-oriented mechanisms can be used to conduct breathing training, waist core muscle strength training and body balance training, so as to help pregnant women effectively relieve low back pain and rebuild their lifestyle during community rehabilitation. In the process of community rehabilitation, children with spastic cerebral palsy can also be guided to complete activities combined with practical life through game tasks and other forms to recover the function and independence of the upper limbs\textsuperscript{[19]}. Foreign studies have shown that\textsuperscript{[20]} task-based training can improve patients’ participation in community activities and play a positive role in restoring confidence. Moreover, the concept of social competence is more
closely related to community rehabilitation, which mainly refers to the use of life coaches in multiple dimensions such as community and family to help patients rebuild their life ability, reshape their life roles, and reconstruct their lifestyle. Community rehabilitation practitioners serve as life coaches for the clients, helping them to carry out complete training in the form of work, guiding their personal life and improving their work practice. Through the education and guidance of rehabilitation teachers in the community, children with intellectual disabilities can be well cultivated and improved in their emotional control ability, self-care ability and interpersonal skills [21].

The concept of "ability ladder" conforms to the ability level and operation expectation of patients at different stages. The training level is from low to high, the training difficulty is from small to large, and the training effect is from small to large. It can provide comprehensive rehabilitation services, conform to the holistic treatment principle of community rehabilitation, and effectively meet the needs of primary prevention, secondary prevention, tertiary prevention and other aspects. In the community rehabilitation can effectively help patients to solve the survival problems, life problems, maintain physical and mental health.

3.2 Rebuilding Life is a six-part song

In the whole treatment process of community rehabilitation, we can make full use of the principles and theories of the six steps of rebuilding life. Its specific connotation application in community rehabilitation can be summarized into twelve words, namely: "cooperation", "utilization", "learning", "adjustment", "establishment", "reshaping".

"Cooperation" means that patients first need to subjectively cooperate with the guidance of community rehabilitation practitioners, actively participate in and conscientiously complete the arranged treatment activities and functional exercises, and promote the recovery of physical activities and cognitive functions as much as possible. For example, in the process of community rehabilitation, COPD patients can actively cooperate with the staff to complete the goal of smoking cessation, take appropriate drug treatment such as glucocorticoid, and carry out active rehabilitation function exercise [22], most of their symptoms can be relieved, and basically will not affect their normal life.

"Utilization" means that in the process of community rehabilitation, patients use the already limited functions as much as possible and complete self-care to the greatest extent. For example, stroke patients with hemiplegia use treadmill [23] to exercise limited function in a community environment to promote the improvement of their quality of life.

"Learning" means that patients learn adaptive life skills with the help of community rehabilitation workers, such as productive activities, handicraft activities, etc., to lay the foundation for future return to society. For example, in the community rehabilitation of patients with coronary artery disease, patients are guided to relearn living arrangement skills and better integrate into family combinations [24].

"Adjustment" refers to the adjustment of the patient's family, friends, and social roles in the community through companionship, interpersonal communication, and interaction. For example, accompanied by a rehabilitation therapist, children with autism play sandplay to promote the connection and integration of their unconscious and conscious [25], and to help children adjust their inner roles and psychological expectations, which can be well applied in the community rehabilitation system.

"Establishment" is to establish a new way of life according to personal preferences and objective conditions with the help of community rehabilitation workers. For example, community rehabilitation therapists can conduct corresponding treatment through the music preferred by patients with schizophrenia [26] to help patients relieve negative emotions, assist them to choose appropriate relaxation methods according to their own characteristics, and prepare for the establishment of new
work.
"Reshaping" is to help patients recover their physical and mental health and enjoy a happy life through various forms in the community, so as to achieve the purpose of reshaping their will to life, life ability and life style. For example, a more comfortable natural environment and psychological environment can be properly provided in the community, corresponding facilities can be optimized, and service system can be improved [27], so as to help the elderly rehabilitated people in the community to obtain a new and meaningful life structure and lifestyle.

The six steps of rebuilding life effectively run through the entire operation process of community rehabilitation, each step develops independently, spirals, gradually and flexibly promotes rehabilitation assessment and rehabilitation treatment, and gradually guides patients to feel the truth and warmth in the community, so that they can regain confidence.

3.3 Reconstruction of Life based interview

Reconstruction-based interview is the core type of reconstruction-based occupational therapy practice model, and interview education has far-reaching significance for the overall occupational therapy model [28], and also plays an important role in community rehabilitation. Through interviews, we can effectively understand the psychological process and emotional changes of patients at this stage. Through the interview skills of community rehabilitation workers, the value concept of rebuilding life is brought into play, and patients are helped to adjust their personal expectations and living environment, stimulate their instinctive desire to rebuild a happy life, and help therapists to carry out follow-up treatment activities in a targeted manner. Interview has low cost, wide advantages, and is basically applicable to any disease in community rehabilitation, including nervous system diseases, bone and joint diseases, visceral diseases, speech disorders, mental diseases, etc. For example, for patients with depression after Parkinson's disease [29], community rehabilitation therapists can conduct health education in the form of interviews, popularize relevant knowledge structure, alleviate the blow of failure after the disease, help patients control emotions and regain confidence.

In the whole process of community rehabilitation, interview and evaluation are always used to effectively help patients correctly understand themselves, formulate appropriate goals, reduce the impact of dysfunction on life, enable patients to regain confidence, and effectively alleviate the conflict between doctors and patients.

3.4 Reconstruction of life as the environment adjustment

As an important interventional method to reconstruct the practice mode of life-based occupational therapy, environmental adaptation also plays a unique role in community rehabilitation. Community rehabilitation workers need to pay attention to all kinds of environments, including natural, living, therapeutic and spiritual environments, and intervene in direct or indirect ways. Through the construction of barrier-free environment, the adaptability between people and the environment can be strengthened, and the ability of daily living activities and participation of the sick and disabled can be improved, helping the patients to improve their functions and regain confidence in community rehabilitation. Environmental adaptation provides barrier-free facilities, barrier-free information exchange and barrier-free community services for the disabled, paying attention to practicability and making up for the defects and deficiencies of the environment. The truly practical barrier-free is comprehensive and systematic [30]. For example, in community rehabilitation, the treatment of stroke patients combined with the transformation of home environment [31] can affect the activity function and participation of patients through intervention of environmental factors, help them to reshape the central nervous system, better restore function and rebuild life.
As an important application of the life-rebuilding occupational therapy practice model in community rehabilitation, environmental adjustment can fully mobilize patients' enthusiasm for life and work through environmental changes, compensate patients' lost functions, improve their physical structure and function, and improve their self-care ability, so as to help patients rebuild a happy life to the maximum extent.

3.5 Reconstructing life as an activity-based therapy program

There are 36 specific contents in the Reconstructing Life based occupational therapy program, and its application in community rehabilitation is mainly reflected in the training of community life skills. It mainly includes therapists assisting patients to use electric stairs, taking transportation, training patients to go shopping and go to supermarkets and outings. Studies have shown [32] that assisting patients to use elevators can promote patients' self-awareness and behavioral control. For postoperative community rehabilitation of hip fracture patients [33], using ADL stairs to train outdoor walking ability can well prevent the risk of falls and improve the ability of daily living activities.

In the community rehabilitation, the reconstruction of life is flexibly applied as the occupational therapy program, which deepens the muscle memory and cognitive function of the patients through practical diversified, life-oriented and systematic daily living activities, achieves the purpose of reshaping the lifestyle, and enables the patients to better adapt to the community environment.

4. Summary and prospect

The practice model of reconstruction-based occupational therapy is based on patients' life experience and social relationship, emphasizing collaboration. It pays attention to patients' physical and psychological recovery, and makes patients feel respected and understood in the process of medical treatment. This paper analyzes the full application of the practice model of reconstruction-based occupational therapy in community rehabilitation from five parts: ability ladder, six steps of reconstruction-based life, reconstruction-based life interview, environmental adjustment and occupational therapy project. Compared with family or hospital, community rehabilitation environment is more flexible and free. The introduction of life-rebuilding based occupational therapy practice mode can help patients re-establish self-confidence in the group by participating in community activities. It can also improve patients' quality of life. Through corresponding training skills and life skills, patients can gradually return to normal life. At the same time, it can promote social integration and reduce the burden on families. In short, the application of the life-rebuilding occupational therapy practice model in community rehabilitation can better meet the needs of patients in various aspects, play a good role, and effectively help patients with bone and joint, nerve, visceral, mental and other diseases and disabled people rebuild physical and mental health, reshape a new way of life, rebuild a new attitude to life, so that they can better integrate into society. It has certain reference value.

As an emerging practice point of view, the life-rebuilding oriented occupational therapy practice model will continue to guide and influence the development process of community rehabilitation, constantly promote the sick and disabled to rebuild their will to life, reshape their life ability, and reconstruct their lifestyle, and help the service objects to cope with various setbacks and difficulties with a positive and sunny attitude. However, there are still some problems in the application of relevant theories and models, such as imperfection, unspecific, unsystematic and non-standard, which need to be paid enough attention to. The relevant text summarized in this paper only provides reference and new ideas for the experience structure of community rehabilitation, and improves the corresponding rehabilitation concept. This paper boasts that there are still many shortcomings, and it will continue to improve in the follow-up research to have a deeper understanding of relevant
knowledge and make contributions to the development of community rehabilitation.

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