

Tower-type Advanced Energetic Rehabilitation Model for Adult Mental Disorder Persons

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ABSTRACT- Adult mental handicapped people have significantly lower intelligence function than normal persons, accompanied by adaptive behavioral deficits. They are slower than their peers in learning and dealing with daily life, understanding of the surroundings and adaptability to the environment. If they are taught to master the skills of home life and employment, it is possible to integrate into society relatively smoothly. This paper focuses on the needs of adults with mental disorders, explores scientific and feasible community rehabilitation services, makes full use of community resources, and provides home life skills training, community integration and employment skills training, which is of great significance to help adults with mental disorders realize their life value and build a well-off society in an all-round way. The paper takes Wuhan Family Support Center for Mental Handicapped Persons named Beautiful Home as an example, uses case tracking method, utilizes the methods of text analysis, individual interviews and observation, and combines the concept of whole-person rehabilitation and the perspective of energetic theory, to analyze the practical effect and predicament of the institution. A tower-type progressive energy-increasing rehabilitation model is extracted, which conforms to the rehabilitation law of adults with mental disorders and meets the actual needs.

Key words - adult mental disorders; community rehabilitation; advanced energy enhancement; rehabilitation model

I. INTRODUCTION

Having a healthy and happy life is everyone's basic wish. But the fact is that for people in special situations, such as mentally handicapped people and their families, this is a very difficult dream to achieve [1]. Data show that there are about 11 million adults with autism and mental disorders in China, but the current national policy of rehabilitation assistance for disabled children covers only 0-6 years old, which has certain lag and limitations [2]. The rehabilitation of adults with mental disorders lacks policy and financial support.

At the same time, the number of institutions specializing in adult mental disorders and adopting community rehabilitation services is seriously insufficient, while the existing community rehabilitation institutions, such as the important organizational carriers undertaking intellectual, spiritual and severe disability care services, have the limitations of single rehabilitation content and lack of professional services [3].

In addition, adults with mental disorders have more urgent needs for employment, acceptance and assistance than younger people with mental disorders [4]. However, the concepts of community rehabilitation, home life and employment skills training have not been taken seriously by the government and society [5].

Based on the concept of whole-person rehabilitation and the perspective of energetic theory, this paper comprehensively describes the service system and rehabilitation effect of Wuhan Family Support Center for Mentally Handicapped Persons with Beautiful Home (hereinafter referred to as "Beautiful Home"), analyses its practical effect and dilemma, extracts the rehabilitation laws for adults with mental disorders, and constructs a tower-type progressive energetic rehabilitation model that meets the actual need.

II. RESEARCH OBJECTS AND METHODS

A. Research subjects

This paper aims at the needs of adults with mental disorders and their survival and development.

First of all, mental disorders need to be defined.

The American Association on Intellectual and Development Disability, abbreviated as AAIDD, founded in 1876, is the earliest professional institute in the world to study mental retardation [6]. They proposed and revised the definition of mental disorders 11 times.

After more than seven years of research by 18 well-known experts from various fields, AAIDD launched the 11th edition of the Handbook on the Definition, Classification and Support System of Intellectual Disability in 2010. It is the first time that the official definition of mental retardation (formerly mental retardation) has been put forward, which suggests that intellectual disability refers to an obstacle manifested by obvious limitations in both intellectual function and adaptive behavior [7]. Adaptive behavior is manifested in conceptual, social and applied skills. Intellectual disability occurs before the age of 18.

Mental disorders have significantly lower intellectual function than normal, accompanied by adaptive behavioral deficiencies [8]. They are slower than peers of the same age in

learning and dealing with daily life scientifically, understanding of the surroundings and adaptability to the environment.

B. Case Tracking Study

Extensive and in-depth investigation is very important for research conclusions and solutions [9].

In this paper, case tracing method is used to collect data, such as text analysis, individual interviews, observation and recording, so on and so forth [10]. Through completely textual analysis of information records of service objects, in-depth interviews were conducted with young adults with autism and mental disorders and their parents [11], and participatory observation was carried out in "Beautiful Home", aiming at how to carry out community rehabilitation services, what specific training and services were provided to institutional trainees in the process, and before and after institutional members entered the institution to evaluate the rehabilitation effect of the trainees.

Referring the relevant literature and quantitative and qualitative data obtained and saved, considering the original rating indicators of home life, community integration and employment support, and combining with the "Beautiful Home" service system and model results, this paper proposes the tower-type advanced energy-enhancing rehabilitation model [12].

C. Records

This paper chooses the adults with mental disorders in the "beautiful home" as the research object.

"Beautiful Home" was registered in 2013, which is the first private non-profit professional service organization in Wuhan

to provide home life skills training, artistic potential development, professional experience and community integration rehabilitation model exploration for adult autistic and mentally handicapped adolescents [13]. Over the past five years, Happy Home has successfully carried out 64 case services, more than 2000 thematic activities and other services, serving more than 40 adults with mental disorders and their families. Some successful experiences have been obtained.

III. THE CONCEPT AND MODEL OF WHOLE PERSON REHABILITATION

A. Whole Person Rehabilitation Concept

According to the definition of the World Health Organization, a good and healthy life includes physical, psychological, social and spiritual satisfaction [14]. The concept of "whole-person rehabilitation" originates from the field of clinical nursing, which attaches importance to the development of individual potential supported by system theory [15]. By means of the cooperation of multi-disciplinary and multi-system teams (medical, social welfare, rehabilitation centers, etc.), through the joint influence and change of individual, family, social and physical environment, the disabled groups can finally return to society [16]. Participate in society and promote the formation of a fair and harmonious social environment.

B. Application of Ideas

1) Service content

The service content of "Beautiful Home" mainly includes day care, rehabilitation training, art training, quality development, shelter labor, etc. Table one presents service dimension and course content of Beautiful Home.

TABLE I. SERVICE DIMENSION AND COURSE CONTENT OF BEAUTIFUL HOME

Service dimension	Contents of the Courses	
Physical rehabilitation	Intelligence development	building blocks, snowflake insertion, piling arhat, etc.
	Physical exercise	ball games, cycling, rope skipping, outdoor running, etc.
Mental health	Self-awareness	Self -awareness building, cognitive ability training, etc.
	Emotional Management	Emotional Will Training
	Interpersonal relationship	Interpersonal relationship counseling
	Sexual Health	Sexual Physiology Education, Sexual Psychological Counseling, Sexual Morality and Legal Education
Social adjustment	Home life	Life habits (hygienic habits, eating etiquette, sleeping habits, etc.); life skills (self-care, cooking, cleaning, tidying, etc.)
	Employment Skills	Writing Ability Training (Digital Reading and Writing, Common Chinese Characters Reading and Writing, Point Connection, etc.), Baking Production and Sharing, Diamond Painting Production
	Community Integration	Community Environmental Protection, Art Show, Community Shopping, etc.

The concept of "whole-person rehabilitation" is embodied in the service of "Beautiful Home", which integrates the resources of individuals, families, institutions and communities, such as parent-child cooperation to cultivate the

ability of living at home, shopping training, environmental protection activities in the community, and community classrooms, so that trainees can recover in the interaction with families, institutions and communities.

In daily rehabilitation training, the contents of physiological rehabilitation, mental health and social adaptation are integrated. In rehabilitation training, more attention is paid to individual social function rehabilitation. The way of group reciprocal rehabilitation is adopted. The trainees learn from and help each other to improve their social adaptability through interpersonal interaction.

2) Service facilities

In the first floor of "Beautiful Home", there are two rooms; one is an art training room and the other is sheltered labor room, equipped with baking appliances and appliances. There are several rooms on the second floor, which are home life skills training room and manual exercise room, equipped like a family layout, with television, refrigerator, treadmill, dumbbell, bookcase, kitchen appliances, sofa, etc.

C. Tower Type Advanced Energetic Rehabilitation Model

1) Rehabilitation Design of Advanced Energy Enhancement

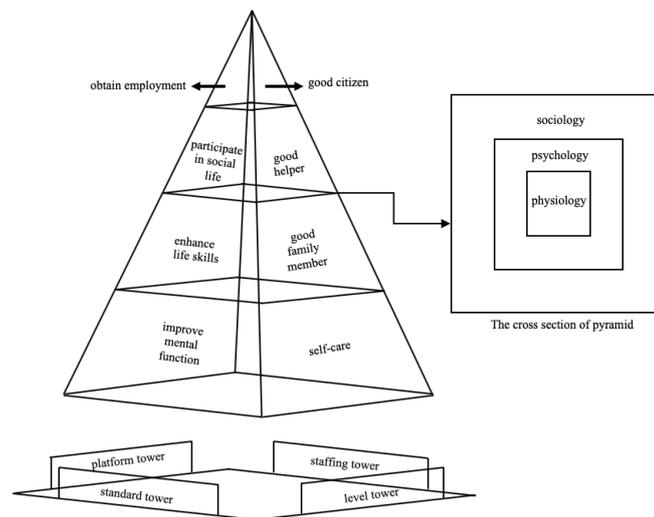


Fig.1 Tower-type Advanced Energetic Rehabilitation Model Based on the Concept of Whole Person Rehabilitation

As shown in Figure 1, the model has four dimensions: platform stepping up, skill enhancement, teacher advancement and grade upgrading. Among them, skills advanced tower refers to the improvement of mental function, life skills, social life participation and employment [18]. Grading up is aimed at the rehabilitation of mental disorder patients, which can be divided into four different categories: good care, good family, good helper and good citizen. The cross section of the advanced tower includes three angles: physiology, psychology and society.

IV. APPLICATION OF THE MODEL AND ITS EFFECT ANALYSIS

The service system of "Beautiful Home" is a tower-like ladder. After the trainees are assessed by professional scale before entering the institution, they are divided into the level matching their abilities for rehabilitation training, and receive regular rehabilitation effect evaluation as the basis for promotion. The trainees whose rehabilitation effect is deteriorating will return to the lower level for rehabilitation training, with mobility among the levels.

In order to promote the comprehensive rehabilitation of adults with mental disorders, based on the concept and advantages of whole-person rehabilitation, and on the basis of the law of mental disorders recovery, the rehabilitation degree is divided into four advanced levels, and the rehabilitation content, teacher (or, therapists, rehabilitation instructors, and the staff of the health recovery centre) allocation and teaching platform matching with each level are formulated. The process of hierarchical advancement is that the mentally handicapped reduce their sense of disability and increase their sense or ability of control, so that the mentally handicapped truly become a positive member of social equality.

2) Tower-type Advanced Model

The concept of "tower-type advanced type" originates from vocational technical education [17]. This paper refers to this concept, improves it according to the service system of "beautiful home" and the concept of whole-person rehabilitation.

A. Application of Model

The four dimensions of the model and its working mechanism and content are discussed as follows.

1) Skills Tower

Skills advanced tower is a rehabilitation way with skill mastery and function improvement as the main line.

Traditional rehabilitation institutions mainly provide life care and simple asylum labor training, and lack professional rehabilitation services. Skills advanced tower carries out systematic and diversified rehabilitation training to compensate for and remedy the shortcomings of trainees through the development of other possible capabilities, so as to maximize the potential of trainees, and to realize the upgrading of abilities from improving the function of cardiac dysfunction to improving life skills, social life participation and employment.

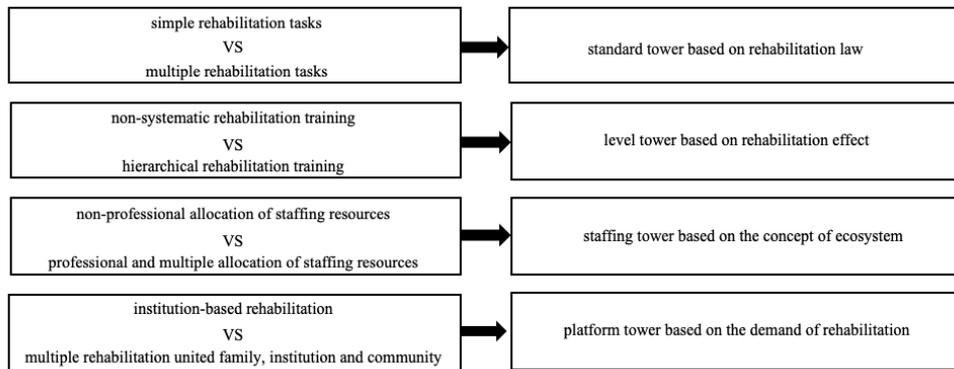


Fig.2 Construction of Tower-type Advanced Energetic Rehabilitation Model

2) Graded Tower

The dimension centered on the evaluation of stage rehabilitation effect is called hierarchical step tower, or simple, the grade tower. In order to make up for the shortcomings of traditional rehabilitation institutions lacking personalized services, trainees were assessed by professional scales before entering institutions, and received differentiated rehabilitation training at different levels according to their abilities and rehabilitation willingness. With the improvement of their abilities, teachers will shift from "leading" to "assisting" to promote trainees' self-learning, self-living and self-rehabilitation [19].

3) Teacher Advancement Tower

Teachers advanced tower is composed of trainees, parents and teachers as the main body. Compared with the single type of teachers in traditional rehabilitation institutions, the tower-type advanced model attaches importance to the strength of peers and families. High-level students can play the role of demonstration and assistant training to help lower-level students recover and further improve their interpersonal skills. Family rehabilitation is emphasized, and parents' training meetings are conducted to guide parents to help trainees recover in the family.

4) Platform step tower

The platform step or advanced tower is composed of family, institution and community. Traditional institutions have the disadvantage of being divorced from the needs of daily life and social interaction. The platform advanced tower is based on the American structured teaching method, which build the rehabilitation environment and made the environment and

time predictable. Through community rehabilitation, trainees can gain opportunities to communicate with other members of society, learn new skills, gain achievements and respect, and improve their physiological and psychological functions.

B. Effect Analysis of Model Application

1) Overall effectiveness of model application

Since the establishment of "Beautiful Home", 64 adolescents with autism and mental retardation have been directly served. The specific results are as follows:

Through the improvement of mental disorder function, 28 people have become "good care" type person, who can live on their own, can dress, tie shoes, buttons and so on.

Thirteen people become "good family" type, who are able to take care of themselves, adapt to social life and have smooth interpersonal communication.

Life skills upgrade "good helper" type of 18 people, who are able to live on their own, adapt to social life, interpersonal communication is smoother, to help family members to complete housework and so on.

Supportive employment "good citizen" type 5 people, can live on their own, adapt to social life, interpersonal communication smoothly, help their families to complete housework, and master a certain level of professional ability, go to professional positions and earn income.

2) Case study of model application

In this paper, two cases (shown as table 2 and table 3) are selected as the demonstration of the effect of tower-type advanced rehabilitation model.

TABLE II. BEAUTIFUL HOME REHABILITATION CASE A

Name	XJZ	Age	16	Gender	Female	Disability categories	Moderate to severe autism
Grades assessed	Lower than good care				Target level	Good family type	
Status before rehabilitation	1. When entering the institution, he was under ten years old. 2. Studying in secondary schools, learning simple Chinese, mathematics, sports, music, art and so on. 3. Life self-care ability is poor, cognitive level is low, refuse to communicate with people.						
Rehabilitation contents	Enroll in two-hour classes (sports and leisure, home life training, professional experience), art potential classes (Chinese painting, instrumental music), outdoor development (community environmental protection).						

Rehabilitation effect	<ol style="list-style-type: none"> 1. The ability to take care of oneself has been significantly improved (clothes and shoes, bathing and simple housework are done independently); simple shopping but no concept of currency value. 2. Good understanding of simple language, color, graphics and rhythm. 3. Being able to express emotions through facial expressions or body movements will actively express ideas with people; hyperactivity status has been significantly improved, behavior norms are appropriate, listen to parents and teachers. 4. Chinese paintings have won many awards; can listen to songs on their own mobile phones, can perform African drums on stage; 5. Can complete pastry making and participate in community environmental protection activities under the guidance of teachers.
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TABLE III. BEAUTIFUL HOME REHABILITATION CASE B

Name	XHB	Age	18	Gender	Male	Disability categories	Cerebral palsy
Grades assessed	Good Care				Target level	Good Citizenship	
Status before rehabilitation	<ol style="list-style-type: none"> 1. Twelve years old when entering the institution. 2. Studying in a secondary school, can read simply, do addition and subtraction, can use calculators to do simple calculations, have learned simple illustration, blowing gourds, playing basketball. 3. Slow reaction, low muscle tension and low motor ability. 						
Rehabilitation contents	Enroll in full-time rehabilitation services (sports and leisure, home life training, social practice, professional experience), characteristic courses (outdoor development, baking), art potential courses (instrumental music).						
Rehabilitation effect	<ol style="list-style-type: none"> 1. The ability to take care of oneself has been significantly improved (clothes and shoes, bathing and simple housework are completed independently); the ability to travel home and institutions by light rail alone; and the ability to go out and buy breakfast independently. 2. Can dance simply, play gourds and African drums; like music and sports. 3. Can complete pastry making under the guidance of teachers, participate in community environmental protection activities, and make simple exchanges with community residents. 						

3) Limitations of the model

At present, there are only few theoretical studies on community rehabilitation for adults with mental disorders, and the information provided by service agencies is not comprehensive enough. The lack of data limits the depth of theoretical reasoning. This paper is mainly a case study, and the concepts and models need to be popularized for practical testing.

V. CONCLUSION

This paper draws the following conclusions.

1) It is necessary to establish various institutions and models for rehabilitation training of mentally handicapped persons (especially adults) in order to reduce the pressure of their families and themselves.

2) In order to realize their personal value and integrate into society, adults with mental disorders need to meet their demands of improving their living ability at home and mastering employment skills. Therefore, it is necessary to explore a scientific and feasible community rehabilitation model.

3) The results of this study show that the tower-type advanced energy-enhancing rehabilitation model based on the concept of whole-person rehabilitation has a significant effect on the recovery of mentally retarded persons, especially on the training of living skills at home, artistic potential, employment skills and community integration. *It can be seen that the four dimensions of community rehabilitation model are scientific and feasible: building skills advanced tower according to rehabilitation law, establishing hierarchical advanced tower*

according to rehabilitation effect, setting teachers platform advanced tower based on ecosystem concept, and constructing platform advanced tower with more rehabilitation needs.

4) For adults with mental disorders, in order to promote their life-long rehabilitation and effective rehabilitation, it is essential to implement a tower-type progressive energy-enhancing rehabilitation model based on the concept of whole-person rehabilitation, which is of great significance to enhance their self-care ability, social integration ability and dignified and quality life.

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REFERENCES

- [1] Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness[J]. The Lancet Psychiatry, 2016, 3(2): 171-178.
- [2] Kohei Arai, Indra Nugraha Abdullah, Hiroshi Okumura. Image Retrieval Based on Color, Shape, and Texture for Ornamental Leaf with Medicinal Functionality Images[J]. International Journal of Modern Education & Computer Science, 2014(6):10-18.
- [3] Xiaowei Lai, The Impact of Community Leisure Participation on Improving the Quality of Life of Special Groups: A Case Study Based on Foreign Countries [J]. Journal of Hubei Institute of Technology (Humanities and Social Sciences Edition), 2017(5): 21. "in Chinese"
- [4] Lake J K, Perry A, Lunskey Y. Mental health services for individuals with high functioning autism spectrum disorder[J]. Autism research and treatment, 2014, 2014.
- [5] Drake R E, Whitley R. Recovery and severe mental illness: description and analysis[J]. The Canadian Journal of Psychiatry, 2014, 59(5): 236-242.

- [6] Spitzer R L, Endicott J, Franchi J A M. Medical and mental disorder: Proposed definition and criteria[C]//Annales Médico-psychologiques, revue psychiatrique. Elsevier Masson, 2018, 176(7): 656-665.
- [7] Krueger R F, Eaton N R. Trans diagnostic factors of mental disorders[J]. *World Psychiatry*, 2015, 14(1): 27-29.
- [8] Erler A, Hope T. Mental disorder and the concept of authenticity[J]. *Philosophy, Psychiatry, & Psychology*, 2014, 21(3): 219-232.
- [9] Shuhua Su, Hang Zhao, Qiaoyun Liu, et al. Investigation on the Current Situation of Education and Rehabilitation of Autistic Children in Special Education Schools [J]. *Special Education in China*, 2017(4): 60-65. "in Chinese"
- [10] Hua Sun, Pingyan Wang, Shuxian Yang. Discussion on the Theory and Method of NGO for Autism Rehabilitation [C]. *Proceedings of the 8th Beijing International Rehabilitation Forum (Volume 2) 2015*: pp.490-494. "in Chinese"
- [11] Ming Ouyang, Zhi Zhang. The Pain of Grass-roots Dance and Rock-splitting: The Survival Status of NGOs in the Service Field of Mental Disorders in China [J]. *Disabled Persons in China*, 2011(3): 26-30. "in Chinese"
- [12] Hongqin Hua. Living Conditions and Rehabilitation System Construction of Elderly Autism Pedigree Disorders [J]. *Social construction*, 2017(2): 15-25. "in Chinese"
- [13] Ronghua Huang, Qinglong Zhang. "Sunshine Home" Strategies for Constructing Long-term Development Mechanisms: Based on the Investigation of Y District of Wuhan [J]. *Journal of Hubei University of Economics (Humanities and Social Sciences Edition)*, 2018, 15(9): 7-10. "in Chinese"
- [14] Wei Liu, Fuchen Liu, Guifang Liu. A comparative study of traditional mental rehabilitation and universal mental rehabilitation [J]. *Journal of Practical Clinical Nursing*, 2018(44): 197-199. "in Chinese"
- [15] Ehsan A M, De Silva M J. Social capital and common mental disorder: a systematic review[J]. *J Epidemiol Community Health*, 2015, 69(10): 1021-1028.
- [16] Jing Du. Application of Energetic Theory in Self-service for Disabled Persons: A Case Study of Adult Mental Disorder [J]. *Journal of kaifeng institute of education*, 2017(12): 181-182. "in Chinese"
- [17] Decheng Zhang, Gan Liang, Xuping Ying, et al. Exploration and Practice of Tower-type Advanced Skills Training Model in Secondary Vocational Schools [J]. *Vocational and Technical Education*, 2016(20): 38-41. "in Chinese"
- [18] Kennedy E Ehimwenma, Paul Crowther, Martin Beer. Formalizing Logic Based Rules for Skills Classification and Recommendation of Learning Materials[J]. *International Journal of Modern Education & Computer Science*, 2018(9):1-12.
- [19] Siraj Mohammed. A Self-learning Knowledge based System for Diagnosis and Treatment of Chronic Kidney Disease[J]. *International Journal of Modern Education & Computer Science*, 2019(3):44-58.