

UNLOCKING SUCCESS: UNDERSTANDING THE IMPACT OF TARGETED INTERVENTIONS ON CHRONIC DISEASES IN DIVERSE GROUPS

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Abstract:

In the age of "Great Health," a paradigm shift is underway in public health services, moving from a primary focus on clinical treatment to one centered on prevention and control. "Great Health" promotes not just the treatment of illnesses but, critically, their prevention. This comprehensive approach underscores the importance of fostering healthy lifestyles and empowering individuals with the skills for self-health management. The shift towards preventative health strategies marks a critical step in addressing the root causes of health challenges, ensuring a more resilient and thriving population.

Keywords: Great Health, Public health, Prevention and control, Healthy lifestyle, Self-health management

Introduction

In the era of Great Health, public health services begin to shift from clinical treatment to prevention and control. Great health advocates a healthy lifestyle, not only treating diseases, but also preventing diseases. It also suggests that people should have the ability of self-health management.

1. Context of chronic diseases

Chronic non-communicable diseases are seriously affecting human health. Data from the 5th National Health Service Survey in 2013 showed that the prevalence rate of chronic diseases among Chinese residents ≥ 15 years old was 33.0% [1]. In 2014, the World Health Organization pointed out in its report that the number of deaths from chronic diseases, including diabetes and cardiovascular diseases, accounted for 68% of the global death toll [2]. The occurrence of chronic diseases is closely related to residents' daily living habits, health cognition and physical conditions. With the gradual improvement of residents' living standards, the incidence of chronic diseases increases, so the prevention and control of chronic diseases is imminent.

2. Current situation of chronic diseases in three groups

3.1. Chronic diseases of elderly population

Research shows that the elderly population aged 60 and above reaches 264.02 million, accounting for 18.7% of the total population [3]. The elderly are the population with the highest prevalence and incidence of chronic diseases, and there are more than 180 million elderly people suffering from chronic diseases, among which the proportion of two or more chronic diseases is as high as 75% [4], and the quality of life of elderly people suffering from multiple chronic diseases is worse [5]. In 2020, the total mortality rate of chronic diseases among the elderly aged 60 and above in China was 3 612.82 per 100,000, 21.07 percent lower than that of 2005 (4 577.39 per 100,000), and 14.82 percent lower than that of cerebrovascular disease, 18.27 percent and 48.19 percent lower than that of chronic respiratory disease in 2005. The mortality rate of diabetes increased by 15.82% compared with 2005 [6]. It can be seen that due

to the change and improvement of lifestyle and living standards, the prevalence rate of elderly people has mostly decreased, but it is just because of the change of lifestyle that diseases such as diabetes have also begun to spread, and similar diseases include cognitive dysfunction, dyslipidemia, and depression, malnutrition [7, 8, 9, and 10]. Therefore, for the elderly, chronic diseases can further deteriorate their health and quality of life. In addition, the etiology of chronic non-communicable diseases is complex, the incidence is often related to a variety of behavioral factors, and different diseases often have common risk factors, which leads to the existence of chronic disease comorbidity. Comorbidity refers to having two or more chronic diseases at the same time, and older adults with comorbidity have poorer quality of life, weaker physical function, higher health care costs, more emergency room visits and hospitalizations, and a higher risk of death than those with a single chronic disease. Multidrug use in elderly patients with comorbidities also has a great impact on the overall quality of chronic disease prevention and control, and may also lead to an increased risk of adverse events of treatment-related chronic diseases. The health condition and life quality of the old people are particularly worthy of attention.

3.2. Chronic diseases of women

The unique physiological structure of the female population, resulting in this population will produce more gynecological diseases, women are more prone to vulva, reproductive tract, uterus, ovary and other lesions, especially in perimenopausal women and women during the puerperal period. Perimenopause is a necessary physiological stage in women's life. The main health problems include ovarian aging, menstrual disorders, physiological metabolism disorders, nervous regulation disorders, depression and so on caused by changes in sex hormones [11, 12]. Most women in the puerperal period are not well adapted to the role of mother due to their first pregnancy and childbirth, leading to anxiety, tension and even depression [13, 14], and even vascular embolism and pelvic floor dysfunction during the puerperal period [15, 16]. For puerperal and perimenopausal women, the most common and typical chronic disease is depression [17, 18, 19, 20, 21]. Perimenopausal syndrome is also a major "killer" that seriously affects the physical and mental health and quality of life of middle-aged and elderly women. The average life expectancy of Chinese population is gradually increasing, and the population of perimenopausal women is also increasing, and the health management of perimenopausal women is becoming increasingly important. Perimenopausal syndrome, also known as menopausal syndrome or menopausal syndrome, refers to a series of physical and mental symptoms caused by the decline of estrogen levels secreted by the ovary before and after menopause in women, mainly manifested as menstrual disorders, vasomotor symptoms, symptoms, metabolic abnormalities and urogenital symptoms, etc. According to statistics, Perimenopausal syndrome affects more than 120 million women each year, seriously affecting the physical and mental health and quality of life of perimenopausal women. Improving the quality of life of perimenopausal women has been listed as one of the three major health issues in the 21st century.

3.3. Chronic diseases of adolescents and children

Among patients with chronic diseases, adolescents are in an important transitional period of growth, when they are facing the transition from pediatric medical system to adult. Due to the influence of various factors at this stage, such as adequate preparation for transition period, continuous health management, self-management status and adaptability of family care, the prevalence of chronic diseases among adolescents is gradually increasing [22]. Chronic diseases that are relatively common in adult population, such as hypertension, blood syndrome of high cholesterol, hyperglycemia, obesity and hypertension, have been on an accelerated rise among adolescents in recent ten years [23]. At present, the global myopia rate is high, the average incidence of myopia in the world is 27%, it is predicted that in 2050, there will be 4.758 billion nearsighted people in the world, including 938 million people with high myopia. In the past 40 years, the prevalence of myopia in children and adolescents in the United States has increased from 25.0% to 41.0%. In South Korea, 58.4% of people aged 7-11 are nearsighted; in Singapore, the rate of myopia among primary 1 to 6 students increased from 28.0% to 65.0%, and among young people, the rate is as high as 82%. In 2018, the National Health Commission said that more than 600 million people in China suffer from myopia and the trend is rising year after year, and the myopia rate of primary school students ranks first in the world. What's

more, the average incidence of high myopia in the world is 2.8%, and the average incidence in China is more than 5%^[24]. Adolescent myopia has become a major social public health problem, and the prevention and control of adolescent myopia has become the focus of the whole society.

3. Health promotion and intervention

4.1. Ensure the quality of life for the aged

The elderly are the main group of chronic diseases. For the intervention of chronic diseases in the elderly, the most important thing is to ensure their quality of life. The more diseases there are, the worse the quality of life will be. Most elderly people have deficiency of healthy qi and decline in physical function, so disease prevention and control should be combined with the actual situation in daily intervention. If the body function deficiency is serious, it is necessary to restore its body to the degree of normal metabolism or rehabilitation training and treatment first, in order to better treatment and maintenance, to achieve better therapeutic effect. In the health promotion and intervention of the elderly population, the primary medical and health services are very important. The elderly population is mostly distributed in rural areas and communities, and the community health service stations and other health departments are directly connected with them. The primary public health departments should do a good job in the health protection, health management and health maintenance of the elderly, and help the elderly population change from overspending on health and fighting diseases to promoting health and preventing diseases. Before that, grassroots health departments should make up for their shortcomings, such as shortage of crude medical equipment, lack of professional health service personnel, lagging information construction, weak management system and other problems. In the "big health" environment, the medical and health departments should actively respond to the national policy and cooperate with the work, so as to achieve the real big health of the whole people. In addition, the elderly population is a high incidence of self-neglect, and self-neglect has become one of the factors that seriously threaten health, and can promote the development of chronic diseases, which is not conducive to disease control. Current studies mainly focus on the influencing factors of health empowerment and the relationship between health empowerment and coping styles, and few studies on the relationship between health empowerment and self-neglect in elderly patients with chronic disease comorbidities. Therefore, relevant departments should actively carry out corresponding studies to provide reference for the formulation of clinical intervention measures.

4.2. Focus on women's mental health

For women, in the prevention and intervention of chronic diseases, more attention should be paid to their mental health, especially for married women in perimenopause and puerperal period. Due to the instability of hormone levels in perimenopausal women, for example, the level of serum TT3 gradually decreases with age, and serum TT3 lower than normal value and serum FT4 higher than normal value are risk factors for depression in perimenopausal women^[25]. In addition, due to the multiple pressures of psychology, family and society, the body and psychological disorders are prone to appear in different degrees. Therefore, in the clinical regulation and treatment of chronic diseases in perimenopausal women, we should pay attention to whether their mental health and emotional stability, give appropriate care, and then cooperate with clinical treatment and rehabilitation. Postpartum depression is the most common postpartum syndrome in women during the puerperal period, which is closely related to hormone secretion disorders. After childbirth, the level of some hormones plummets, resulting in reduced catecholamine secretion in the brain, affecting higher brain activities and resulting in psychological disorders^[26]. Coupled with the changes of reproductive organs and the body as well as the feeding pressure, the spirit is also in a transition period, its psychological than normal people more prone to anxiety and even depression. Therefore, psychological treatment has a significant effect on improving maternal mood and mental state. Regardless of puerperal women or perimenopausal women may have genital diseases, vulva, genital tract, uterus, ovary and other lesions will also make women produce anxiety, inferiority and other emotions, which is also another hidden danger of depression. Therefore, in the prevention and control of clinical female chronic diseases, it is not only necessary to treat organic diseases, but also to give individualized and necessary mental health intervention, which has positive clinical significance for preventing the incidence or reducing the incidence.

4.3. Guide the physical and mental growth of young children

Adolescents and children are the key period of physical and psychological growth and development. At this time, teenagers are ignorant and immature, their body and mind are in the embryonic stage, and they do not have the perfect consciousness of personal health responsibility, cognitive ability and health literacy. If there is no correct and positive psychological guidance and physical health education, all kinds of behaviors harmful to health will be conducted. For example, smoking, alcoholism, Internet addiction, poor diet and lack of exercise all affect adolescent health to varying degrees, and some behaviors can also become the seeds of chronic diseases in adulthood. Adolescence is a special period when teenagers transition from children to adults. Some scholars also call it the "passive resistance period". At this time, the rebellious psychology and risk-taking spirit will prompt teenagers to try those dangerous behaviors that are not allowed by parents and teachers and endanger their own health [27]. Non-suicidal self-injury behaviors of adolescents are related to campus bullying, family environment, self-esteem, Internet addiction, anxiety, depression, etc [28]. However, Internet addiction is closely related to their own emotions, because they cannot release aggression in real life, so they take refuge in the Internet [29]. Teenagers cannot vent their emotions to their families, teachers and friends in life, so they are immersed in the virtual world, which can be vented. As time goes by, they become Internet addiction. Internet addiction is also the cause of many unhealthy behaviors, such as addiction to the Internet under emotional and stress. In this state, adolescents' preference for food may change, resulting in abnormal eating behaviors and even eating disorders. Coupled with a lack of exercise for a long time, bad eating habits, long-term electronic radiation, fear of social behavior, resulting in adolescent obesity, three high, myopia, depression and other conditions are more and more serious, there is no lack of criminals using the Internet to carry out telecom fraud and induce juvenile crime. In adolescents' health education, parents, teachers, friends and adolescents themselves are all crucial roles. Teachers and parents should set an example, appropriate individualized communication methods, regular health and psychological education. All these are crucial factors for adolescents to stay away from dangerous health behaviors, improve health cognition, develop personal health responsibility consciousness and form good health literacy during their growth and development stage.

4. Summary

With the transformation of modern medical model from biomedical model to social, psychological, biological and medical model, medical development has changed from "disease" as the center to "people" as the center, the diagnosis and treatment method has also changed from group medicine to individual medicine, from "disease of people" to "sick people", from "treatment" to "disease prevention". The relationship between health and life style has also become one of the important issues in health sociology. The World Health Organization points out that among the various factors affecting health, biological factors account for 15%, social factors account for 10% and environmental factors account for 7%, while human behavior and lifestyle account for 60% and medical services account for only 8%[30]. As a result, many of today's chronic diseases are often referred to as "lifestyle diseases." With the deepening of China's aging population, coupled with the prevalence of unhealthy lifestyles such as smoking, excessive drinking and sitting for a long time, the prevention and control of chronic diseases still faces great challenges. The prevention and control of chronic diseases should first start with disease prevention, actively advocate a healthy lifestyle, widely carry out the national fitness campaign, carry out targeted publicity and education for different groups, and carry out targeted knowledge popularization in a planned, targeted and focused manner. At the same time, it is necessary to increase the screening and management of high-risk groups of chronic diseases, do a good job of screening and intervention of complications, and achieve early detection and early treatment. In addition, it is necessary to strengthen mental health services, social work services and individual crisis intervention for key groups, and strengthen group crisis management. With the continuous promotion of the strategy of "Healthy China 2030" Plan Outline "and people's increasing demand for health, public health departments should prevent and control chronic diseases in the elderly, women and adolescents according to the characteristics of different groups and individual differences among the same group. Public health departments should develop an

individualized health management system; So that everyone can understand the necessary core health knowledge and skills, can improve the unhealthy behavior according to their own situation. We should create a green and safe life concept, promote a healthy lifestyle, so as to improve people's health and provide protection for the prevention and control of chronic diseases.

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