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REVIEW

Improving the ability of neurology departments in general hospitals to treat neuropsychiatric disorders

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Abstract: Due to the "stigma" of psychiatric diseases, most patients with psychiatric diseases prefer to be treated in general hospitals or combined Chinese and Western medicine hospitals, while patients with internal diseases are mostly seen in neurology departments. At present, there are few neurologists in general hospitals in China who are capable of treating neuropsychiatric disorders, and they do not have enough experience in treating such disorders. In this paper, we present a review of the current status of neuropsychiatric and psychiatric disorders in general hospitals and Chinese and Western medicine hospitals, and propose recommendations to strengthen the capacity of neurology departments in general hospitals to treat neuropsychiatric disorders.

Keywords: neurology; neuropsychiatric disorders; general hospitals; diagnosis; treatment

With the changing global disease spectrum and disease burden, neurological diseases and mental health problems have become the major health issues facing humanity in the 21st century [1]. Epidemiological studies have found that almost all medical illnesses can be associated with psychiatric problems, and the severity of symptoms is often positively correlated with the severity and duration of illness [2, 3]. However, most patients with neuropsychological or psychiatric disorders still choose the neurology department of general hospitals or the encephalopathy department of Chinese and Western medicine hospitals and other internal medicine departments at the first consultation, rather than the mental health center or the psychiatry department of general hospitals, due to the "stigma" of the disease [4]. Currently, many physicians in China are unable to accurately identify and treat patients with neuropsychiatric disorders because they have not received education or experience in the treatment of primary psychiatric disorders or psychiatric disorders associated with medical illnesses, which can easily lead to missed diagnoses and misdiagnoses, thus delaying treatment, wasting medical resources, and even causing medical disputes [5].

1 Characteristics of patients with neuropsychiatric disorders attending general hospitals in China

Among patients with neuropsychiatric disorders who visit general hospitals, patients with depression, anxiety, and somatization disorders are more common, and most of them are co-morbid with other medical disorders. Depressive disorders are one of the most common psychiatric disorders.In early 2017, a survey by the World Health Organization showed that the number of people with depression has reached 322 million worldwide [6], while the prevalence of depression in China reached 4.2% [7], and depression has become one of the most important diseases that endanger human health. Foreign data show that 54% to 80% of depressed patients are seen in clinical departments of general hospitals and receive some treatment [8]. To the author's knowledge, there is no published data in this regard in China. There are 2 types of depressive disorders, primary depressive disorders without neurological or other systemic disorders, and depressive disorders with or secondary to organic disorders, the latter also known as secondary depressive disorders or co-morbidities. Patients with chronic medical conditions are at high risk

for secondary depressive disorder or co-morbidity [9, 10]. Some patients with primary depressive disorder and their families are psychologically able to accept the diagnosis of "depression", so the diagnosis and treatment are relatively easy; however, the diagnosis of depressive disorder with medical illness is more complicated, and patients and their families are reluctant to admit that they are suffering from "mental" illness. The diagnosis of depressive disorders with medical illnesses is more complicated, and patients and their families are reluctant to admit that they are suffering from "mental" illnesses. For example, the common neurological disease Parkinson's disease, PD, is often associated with depressive disorders, which is one of the common non-motor symptoms of PD and can occur before the onset of motor symptoms in PD [11]. The pathophysiological changes in PD are mainly the depletion of dopamine, DA, in the nigrostriatal system and the decrease of DA content in the midbrain rim and midbrain cortex, which indirectly affect behavior and cognition. The decrease in the activity of DAergic neurons in the CNS can cause a decrease or loss of pleasure, emotional indifference and reduced volitional activity, and can also affect the concentration of 5-hydroxytryptamine (5-HT) and denorepinephrine (NA) receptors in the synaptic gap and metabolic recycling pathways in the brain, leading to depression. "endogenous depression". That is, in the pathophysiological process of PD, depressive disorders are prone to occur [12]. On the other hand, patients with PD have symptoms such as slow movement, postural peculiarities (postural disorders), muscle rigidity, resting tremor, mask face, salivation, etc., and their ability to take care of themselves is reduced, resulting in serious damage to their personal "image", which forces them to close themselves from normal social groups and society. This kind of depression caused by physical symptoms is "exogenous depression". Therefore, the treatment of depressive disorder in PD patients requires more considerations than the treatment of primary depressive disorder alone, and the selection of drugs is more difficult [13]. selective serotonin reuptake inhibitor (SSRI), a commonly used antidepressant, has interactions with DA- and anticholinergic drugs for the treatment of PD, making its use more complicated. The use of SSRIs is complicated by interactions with DA- and anticholinergic drugs used to treat PD. Stroke is another group of neuropsychiatric co-morbidities that can be caused by a combination of endogenous factors (brain damage and receptor pathways) and exogenous factors (disability), and the occurrence of depression is related to the site and type of stroke, so physicians with experience in neurological and psychiatric disorders have a distinct advantage in treating these disorders. In addition, many chronic neurological disorders such as multiple sclerosis and myasthenia gravis can be associated with depressive disorders. Neurologists or psychiatrists alone are often overwhelmed in the management of these patients. Patients with these co-morbidities generally prefer to go to the neurology department of a general hospital or the encephalopathy department of a combined Chinese and Western medicine hospital, but less often to a mental health center or psychiatric department.

It has been shown that patients with organic disorders with anxiety disorders and somatization disorders are often the most common patients with mental disorders in general hospitals [14]. Because of the complexity of patients' complaints about their somatic symptoms, it is not easy to identify and manage these disorders clinically, resulting in repeated visits to different departments, which not only causes a waste of medical resources, but also brings time and economic losses to patients and their families. Based on the disease characteristics of anxiety disorders, these patients exhibit complex somatic symptoms of multiple systems, and more than half of the patients with anxiety disorders have experienced at least two systems of somatic symptoms in the past month, and in severe cases, up to five systems of somatic symptoms [15], especially headache, dizziness, fatigue, chest tightness, sleep disturbance, and numbness are the most common complaints. These symptoms often cannot be localized and characterized by a particular organic lesion. Clinically, there are cases in which the complaints and course of the disease "fit" perfectly with the organic disease, but the objective examination (imaging, ECG, neurophysiological examination, etc.) cannot confirm it. For example, in the emergency department or cardiology department of a general hospital, the most common cases of suspected "angina"-like episodes in middle-aged and elderly women are those that occur during anger or exertion and are characterized by pain in the precordial region with radiating pain in the left shoulder and back, even involving the left upper extremity. The patient's ECG, 24-h ECG, cardiac function tests, hematological tests related to myocardial infarction, platelet exercise tests and even coronary angina pectoris were all inconclusive, but because the patient had a clear and typical complaint of "angina pectoris", she was finally The patient was referred to neurology. The most common complaints of neurology patients are head distension, headache, dizziness, or vertigo, but most of these patients' cranial computed tomography, CT, magnetic resonance imaging, MRI, and cervical spine CT or MRI, and even CT or MRI angiography and electroencephalography, suggest "ischemic cavernous lesions in the basal ganglia region", the localization of which is not related to the patient's symptoms. However, patients often believe that this is the cause of their headache or dizziness based on imaging findings suggesting "ischemic foci" or "lacunar cerebral infarction", and request neurologists to treat them, which may lead to repeated use of blood-activating drugs and anticoagulants. Other patients have occasional vertigo-like attacks that last for a few seconds and resolve on their own, but they think they may have an early stage "brain tumor" or "brain cancer" by searching for information on the Internet. After a patient was diagnosed with glioma in one unit, dozens of people in the unit went to the neurology department with complaints of occasional dizziness, headache or head discomfort and underwent repeated examinations to make sure that the cause of their head discomfort was clear and to rule out the possibility of brain tumors. Due to the fear of mental disorders, patients are often reluctant to accept the diagnosis of "neurosis", "somatization disorder", "anxiety state", etc., and thus move from hospital to

hospital and seek consultation from multiple physicians. Patients are often reluctant to accept a diagnosis of "neurosis," "somatization disorder," or "anxiety disorder," and thus move from hospital to hospital and from physician to physician. Patients or their families often seek to conceal the fact that they have a psychiatric disorder with an organic disease.

2 Problems in the diagnosis and treatment of neuropsychiatric disorders in China

Patients with depression, anxiety, and somatization disorders who present to general hospitals or mental health centers are convinced that their discomfort is due to organic pathology, so their complaints tend to describe specific somatic symptoms and attempt to mask their emotions, resulting in a great deal of time and effort on the part of the clinician to get to the core of the patient's problem. Therefore, both non-psychiatrists in general hospitals and psychiatrists in mental health centers face the following problems when treating these disorders: (1) neurologists or encephalologists in general hospitals are not qualified to treat psychiatric disorders, and they lack the skills or experience to quickly and effectively identify organic lesions from somatization disorders; (2) psychiatrists in mental health centers or (2) Psychiatrists in mental health centers or psychiatrists in general hospitals also have the risk of misdiagnosis and mistreatment when treating patients with co-morbid medical conditions because they lack expertise in treating neurological or other medical chronic diseases; (3) Non-psychiatrists in general hospitals have limitations in their qualifications to use psychiatric drugs, and the variety of psychiatric drugs in general hospitals is not comprehensive. The use of SSRIs and other psychiatric drugs is not as strictly restricted in China as it is in foreign countries, so there is a greater risk of using these drugs in the absence of corresponding standardized training in common psychiatric disorders. In particular, it is important that non-psychiatrists in general hospitals are qualified to treat psychiatric disorders, because in the event of a medical dispute, a lack of appropriate qualifications would prevent a strong defense.

3 Recommendations for strengthening the capacity of non-psychiatrists to treat mental illness within general hospitals

Chinese neuropsychiatric experts and the Neurologist Branch of the Chinese Medical Association have fully recognized this problem. The Neurologist Branch of the Chinese Physicians Association has established the first Neuropsychological and Emotional Disorders Committee, which focuses on neurologists. There is a correlation between neurology and psychiatry, but the two are not equivalent. Although some general hospitals in China have established neuropsychological or neuropsychiatric departments and neuropsychiatric pediatrics, most neurologists have limited knowledge of psychiatric disorders and have not received professional clinical and theoretical training. Therefore, training in neuropsychiatric specialties in general hospitals should be strengthened to improve the ability of general hospitals to diagnose and treat neuropsychiatric disorders. In this regard, the following 3 recommendations are made:

First, it is recommended that physicians' associations or local health care institutions take the lead in training physicians in neurology departments of general hospitals or in the brain disease departments of Chinese and Western medicine hospitals in the treatment of psychiatric disorders, so that relevant physicians can also obtain psychiatric disorders qualification and establish neuropsychiatric (neuropsychological) specialties. In order to avoid a sense of "stigma" for patients and their families, it is recommended that general hospitals modify the names of outpatient clinics that treat such diseases, such as renaming them "psychosomatic disease clinics," "neuropsychological clinics The name of these clinics can be changed to "Psychosomatic Disease Clinic", "Neuropsychological Clinic", "Psychosomatic Disease Clinic", etc. These clinics can be attended by trained and qualified neurologists. A qualified neurologist can easily understand and accept the theories of psychiatric diseases based on his or her professional strengths, so after receiving training and certification in psychiatric diseases, he or she can be competent in the treatment of psychiatric diseases and receive regular continuing education and assessment to ensure the quality of diagnosis and treatment. Secondly, emphasis should be placed on training neurologists in general practice knowledge (including knowledge of Chinese medicine), while establishing a consultation system for neuropsychiatric (neuropsychological) diseases in general hospitals. Neurologists who have undergone standardized training should first have comprehensive basic knowledge of internal diseases, and most importantly, they should be proficient in neurological expertise, and on this basis, they should have rich knowledge of psychiatric diseases. China has a long tradition of Chinese medicine, and Chinese medicine has a relatively complete theoretical system in the diagnosis and treatment of "mental" diseases, which believes that "happiness, anger, sadness, thought, grief, fear, and fright" can all lead to physical diseases, and physical diseases can also affect emotional changes [16]. This theory is fully consistent with the modern medical theory of mental and somatic co-morbidity. Therefore, it is recommended that neurologists should also receive some training in TCM theory and be able to use milder TCM terminology to communicate with patients with "co-morbidities", while avoiding the use of modern medical terms such as "depression", "anxiety", and "anxiety". "anxiety disorder," "mental abnormality," "panic attack," and other terms used in modern medicine. At the same time,

it is recommended to follow the practice of the Neurologist Branch of the Chinese Medical Association and establish a corresponding special committee to conduct regular academic exchanges and continuing education to train professional physicians in the field of neuropsychiatry. In addition, it is recommended that a more complete consultation system for psychiatric disorders in general hospitals be established, with particular emphasis on the consultation system for psychiatric-psychiatric disorders, and that the consultation records should be clearly organized, concise, clear, and operable, especially the instructions for the use of psychotropic drugs should be as detailed and standardized as possible [17]. Some larger general hospitals usually have psychiatric outpatient clinics or psychiatric wards, and these psychiatrists should be regularly trained in neurological diseases as well as common internal diseases or participate in regular training and continuing education of professional societies. At the same time, coordination and cooperation between neurology and psychiatry should be emphasized to avoid wastage of medical resources.

Third, it is recommended to improve the types of antipsychotic drugs in general hospitals and to strictly manage the qualification of drug use. The qualification of drug use is an issue that medical institutions around the world attach great importance to, and a rigorous medical qualification audit can avoid medical disputes and regulate the share of medical insurance use. At present, most general hospitals in China can provide some antidepressants and anti-anxiety drugs (such as sertraline hydrochloride, fluoxetine hydrochloride, venlafaxine, duloxetine, etc.) and antipsychotics such as olanzapine, sulpiride, fenadine, etc.; Chinese hospitals or hospitals combining traditional Chinese medicine and Western medicine can provide Wu Ling capsules, liver detoxification capsules, etc. with "antidepressant" and "anti-anxiety" properties. "anti-anxiety" effect of proprietary Chinese medicine or plant-based drugs. Thus, it can be seen that general hospitals and Chinese medicine hospitals or hospitals combining Chinese and Western medicine do not have a complete range of drugs, and the authority to use drugs is not perfect. Therefore, it is recommended that physicians who are only qualified in Western medicine be allowed to use some proprietary Chinese medicines so that they can treat co-morbid patients, and that neurologists in general hospitals who have received specialized training in psychiatric disorders be allowed to use more systematic antipsychotic medications. In addition, the discretionary use of antipsychotic drugs in other unrelated departments should be restricted to avoid wasting medical resources and medical accidents and disputes.

4 Summary

Most of the patients with neuropsychiatric disorders treated in non-psychiatric outpatient clinics and wards in general hospitals are co-morbid, and some are patients with primary psychiatric disorders who do not want to go to psychiatric clinics for treatment.". Therefore, mental health-related health education for the social population is necessary.

"No health without mental health" is one of the medical priorities of the 21st century as proposed by the World Health Organization [18]. The rational and effective diagnosis and treatment of psychosomatic diseases should become an important clinical task in general hospitals in the future. Qualified neurology clinicians in general hospitals should pay attention to neuropsychiatric disorders while treating patients' physical symptoms, and pay attention to various aspects to make a comprehensive diagnosis; at the same time, hospitals should ensure the reasonable application of antipsychotic drugs. Therefore, it is necessary to further improve the ability of non-psychiatrists to standardize the diagnosis and treatment of mental disorders in the future mental health services of general hospitals.

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