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Diagnosis and Assessment of Non-Suicidal Self-Injury in the Background of Integrated Traditional Chinese Medicine and Western Medicine

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Abstract

Non-suicidal self-injury (NSSI) refers to deliberate and repeated acts of damaging one's own body tissue without suicidal intent. It is usually related to depression, bipolar disorder (BD), post-traumatic stress disorder (PTSD), and borderline personality disorder (BPD). Integrated Chinese and Western medicine treatment is one of the effective methods for the treatment of NSSTI at present. In this process, NSSI patients to be evaluated and diagnosed. In addition to the correct clinical diagnosis, it is also necessary to conduct a number of assessments with clinical characteristics of integrated Chinese and Western medicine, including the evaluation of psychological scales, MDQ and HCL-32 for differential diagnosis, severity of depressive and manic and mixed symptoms, family function, and patient's personality characteristics. In Traditional Chinese Medicine (TCM), it is necessary to evaluate the TCM syndrome, TCM constitution, as well as the tongue and pulse traits.

Keywords: Traditional Chinese Medicine, Non-suicidal self-injury, Clinical diagnosis, Clinical evaluation

Introduction

Non-suicidal self-injury (NSSI) is a behavior characterized by intentional physical harm to one's body (e.g., cutting, burning, or hitting) as a means of alleviating psychological distress, and/or attracting others' attention, and/or seeking help from others, without the real intent of suicide [1]. Due to its special existence, it has a negative impact on both psychology and physiology, and intervention and treatment are obviously necessary, appropriate, and timely [2]. In the context of integrated Traditional Chinese Medicine(TCM) and Western Medicine(WM) treatment should be centered on psychological intervention, complemented by pharmacological treatments and holistic TCM modalities, forming a multidimensional intervention strategy.

Under the framework of combined TCM and WM diagnosis and treatment, the diagnosis and assessment of NSSI serve as prerequisites for effective therapeutic intervention. This requires integrating perspectives from modern medicine, including psychology, psychiatry, sociology, and biology, with the holistic view and syndrome differentiation-based treatment principles of TCM. Such integration forms a comprehensive, multidimensional diagnostic and assessment framework to support therapeutic efforts.

The concept of integrating TCM and WM is a new clinical treatment idea, so it needs to evaluate NSSI comprehensively in terms of physiology, psychology, and social function under the framework of integrating TCM and WM, so that it is possible to treat NSSI with integrating TCM and WM. This process requires a broad literature search to find favorable evidence, evaluate the credibility and grade of evidence, summarize relevant expert experience and suggestions, and complete it with clinical routine examination and evaluation.

Diagnosis and Assessment from the Perspective of Western Medicine

NSSI diagnostic criteria

The Diagnostic and Statistical Manual of Mental Illnesses (DSM-5) classifies NSSI as a "Condition Requiring Further Study" with the following diagnostic guidelines[3]

Behavioral presentation:

Frequency: Deliberate self-inflicted injury resulting in superficial or mild tissue damage (e.g., bleeding, bruising) on ≥5 days within the past year.

Exclusion: The behavior is not better explained by another mental disorder (e.g., psychotic disorders, intellectual disability).

Behavioral Intent:

Motivations: At least one of the following must be present:

- Relief of negative emotions/cognitive states(e.g., anxiety, self-criticism).
- Resolution of interpersonal difficulties (e.g., eliciting reactions from others).

Absence of suicidal intent: No intent to die during the act of self-injury.

Associated psychological/social features:

Triggers: Interpersonal conflicts or intense negative emotions (e.g., depression, tension) preceding the self-injury.

Preoccupation: Persistent rumination or urges about self-harm (e.g., frequent thoughts about the behavior).

Clinical significance:

Impairment: Causes clinically significant distress or interferes with social, academic, or occupational functioning.

Non-cultural: Not culturally sanctioned (e.g., tattooing, piercings) or driven by delusions/hallucinations.

Exclusion criteria:

Rule out: Suicide attempts, substance intoxication, intellectual disability, or direct manifestations of other mental disorders (e.g., borderline personality disorder (BPD), autism spectrum disorder (ASD)).

Assessment tools

Psychological assessment: Utilization of standardized scales to quantify the frequency, motivation, and emotional states of behaviors. These scales conclude Non-Suicidal Self-Injury Assessment Questionnaire [4], Adolescent Self-Injury Behavior Scale and the Ottawa Self-injury Inventory (OSI) [5], Alexian Brothers Urge to Self-Injure Scale (ABUSI) and the Impulse, Self-harm, and Suicide Ideation Questionnaire for Adolescents (ISSIQ-A) [6]. The Transtheoretical model of change (TTM) has been useful in predicting behavior change [7]. At this basis, three scales were established, which are NSSI-Decisional Balance (NSSI-DB), NSSI-Processes of Change (NSSI-POC), and NSSI-Self-Efficacy (NSSI-SE) [7].

Psychiatric assessment:

Comorbidity screening, assessment and diagnosis: NSSI is often not an isolated condition but frequently coexists with other mental disorders and may even be a significant manifestation of other psychiatric conditions, such as depression, bipolar disorder, and PTSD. Clearly, these conditions not only require primary diagnosis but also necessitate assessment using relevant scales to assist in diagnosis or evaluate severity. HCL-32 and MDQ are diagnostic scale for bipolar disorder (BD) [8]. There's common scale of HAMA and HAMD for severity assessment of anxiety and depression. The scale about suicide also should be used for idea and attempt of suicide of patients with NSSI.

Functional assessment: Functional assessment mainly focuses on the impact of NSSI and the disease it belongs to on interpersonal relationships, social function, occupational level, and family function, which to some extent reflects the severity of NSSI and the disease to which it belongs. In the process of psychological intervention or drug treatment, the restoration of these damaged functions is an important indicator of successful treatment [9]. In addition to the evaluation of the family function of the patient, the family structure and family function of the patient's relatives, especially father and mother should also be evaluated [10].

Biological examination: Just as when a patient is admitted to the hospital, a comprehensive physical examination and laboratory examination should be conducted. In particular, hormones, indicators of oxidative stress, and imaging of the brain related to mental illness should be the focus of attention. It also includes descriptions of self-harm injuries.

Identification of high-risk factors: The main judgment is the possibility of transition from self-injury to suicide. Some patients swallow a large number of drugs or foreign objects, which need to be removed or washed out. This judgment needs to be accurate.

Diagnosis and Assessment from the Perspective of TCM

Holistic view and constitution identification

Constitution classification: TCM believes that traditional body constitution is one of the important foundations for the occurrence and development of diseases. Focus on identifying

constitutions prone to emotional imbalance, such as Qi stagnation, Blood stasis and phlegm-dampness types [11,12].

Emotional pathogenesis theory: Analyze the pathogenesis of self-injurious behaviors by integrating the "Seven Emotions Internal Injury"(e.g., liver Qi stagnation, excessive heart fire) [11,12].

Disease identification and TCM syndrome type

Disease identification: Disease Identification is first steps of clinical diagnosis in TCM, which means that the disease belongs to which classification. Although NSSI belongs to psychosomatic diseases in TCM, it has some characteristics of diseases of the spleen and stomach and the heart, which need to be carefully identified [12,13].

Differentiation of syndromes in TCM: Differentiation of syndromes is basis of TCM therapy. This is the famous dialectical treatment of TCM. In general, NSSI may have the following TCM syndromes [11-13].

- Liver Qi Stagnation Syndrome: Emotional suppression, chest oppression and hypochondriac pain, dark red tongue, wiry pulse.
- Heart-Spleen Deficiency Syndrome: Palpitations, forgetfulness, fatigue, pale tongue with white coating, thin and weak pulse.
- Phlegm-Fire Harassing Shen Syndrome: Irritability, insomnia with many dreams, red tongue with yellow and greasy coating, slippery and rapid pulse.
- Qi and Blood Stasis Syndrome: Local pain, purplish skin, dark purple tongue or with stasis spots.

Integration of the four diagnostic methods in TCM: These are primary methods that not only focus on diagnostic methods in TCM, but also focusing on emotional fluctuations, family relationships, and triggering events.

Tongue/pulse diagnosis: Combine tongue appearance (e.g., redness on the tongue edges and tip indicates liver stagnation transforming into fire) and pulse conditions (e.g., a wiry pulse suggests liver stagnation) to aid in pattern differentiation.

Meridian examination: Check for tenderness or nodules in specific acupoints (e.g., Taichong, Neiguan), which reflect organ imbalance.

TCM syndrome rating scale

The Traditional Chinese Medicine Syndrome Evaluation Scale is designed to assess a specific syndrome in TCM. It can evaluate the severity of a syndrome based on multiple symptoms, tongue and pulse diagnostics, as well as functional status, and can also reflect changes in the syndrome and treatment efficacy through the evaluation scale. For example, there is a specific scale for assessing liver stagnation and qi stagnation [14]. However, one of the limitations of this approach is that it requires a separate scale for each syndrome, which could be improved.

Five-State personality evaluation

The Five-State Personality Theory is a classification system for personality that is based on the yin-yang theory found in the Huangdi Neijing. This theory categorizes personalities into five types based on the balance of yin and yang energies within an individual. This classification system is deeply rooted in Chinese culture and has gained significant attention, with applications in both TCM and the study of emotional and mental disorders [15]. NSSI is also a type of emotional and mental disorder, and research on the Five-State Personality Theory may contribute to a better understanding of NSSI.

TCM constitution assessment

TCM constitution refers to the core concept in TCM that each individual possesses a unique, innate physical and functional makeup. This constitution determines at least 3 aspects of a person. First is susceptibility to specific diseases or disharmonies. Second is reactions to pathogens, environmental factors, emotions, and lifestyle. And third is response to treatments (like herbs or acupuncture) [16].

Diagnosis and Assessment from the Perspective of Integrity of TCM and WM

Multidimensional integration model

Biopsychosocial model: WM evaluates behavioral characteristics and psychological state, TCM analyzes constitution and organ dysfunction, combined with social and family environmental factors.

Dynamic assessment: Monitor intervention effects dynamically via scales (WM) and the four diagnostic methods (TCM), and adjust treatment plans accordingly.

Comorbidity and risk stratification

Suicide risk identification: WM uses the Columbia-Suicide Severity Rating Scale (C-SSRS), while TCM judges the loss of mental vitality through the state of "spirit" (e.g., dull gaze, incoherent speech).

Somatic comorbidity management: For self-injury-induced infection, WM treats the wound, and TCM aids anti-inflammation with heat-clearing and detoxifying therapy (e.g., Coptis, Honeysuckle).

Cultural sensitivity assessment

To combine the patient's acceptance of TCM and WM, and avoid assessment deviations caused by cultural differences (such as the stigmatization of emotional issues).

Integrated TCM and WM rating scale

The integrated TCM and WM syndrome assessment scale serves as a bridge connecting the holistic view of TCM, the principle of syndrome differentiation and treatment, with the disease classification and objective testing methods of WM. By employing a structured, itemized, and quantifiable approach, it transforms the abstract TCM syndromes into measurable and comparable scores, thereby providing an indispensable standardized tool for both clinical practice (accurate diagnosis, individualized treatment, and efficacy evaluation) and scientific research (standardization of syndromes, exploration of mechanisms, and new drug development). It is a crucial cornerstone in advancing the integration of TCM and WM towards standardization, scientific rigor, and precision. Such as there is a scale of depression [17].

Notes

Building a doctor-patient trusting relationship

NSSI patients often have shame, need to build a therapeutic alliance through empathetic communication (WM) and "treat Shen" (TCM).

Family system evaluation

This evaluation system include family function evaluation (WM) and "family and emotion-thought disease" correlation analysis (TCM) to identify family dynamics influences.

Long-term follow-up

Develop a follow-up plan with integrated TCM and WM, and monitor relapse risks (e.g., the impact of seasonal changes on emotions).

Summary

The integration of TCM and WM is the best and most comprehensive way to evaluate and diagnose NSSI. This includes the basic methods of the four diagnoses, also including the evaluation of the five states of personality and TCM constitution, and more importantly, the evaluation of the TCM syndromes of NSSI. At the same time, the clinical diagnosis of WM is a course of disease differentiation, and at the same time, it is very important to carry out a series of relevant assessment by scale. Of course, it may be better to use a combination of TCM and WM, but also to evaluate the patient's family functions and person to person relationships, providing the most basic information for psychological treatment.

Declarations

Ethics approval and consent to participate

N/A.

Consent to publication

All authors agree to publish the manuscript.

Availability of data and material

N/A.

Competing interests

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Author's contribution

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