Original Article

Relationship between uncertainty in illness, mood state and coping style in patients with temporomandibular disorders

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A B S T R A C T

Objective: To investigate the relationship between uncertainty in illness, mood state and coping style in patients with temporomandibular disorders (TMD) in the hospital, in order to identify nursing measures.

Methods: Chinese versions of the Mishel Uncertainty In Illness Scale (MUIS), Brief Profile Of Mood States (BPOMS) and Medical Coping Modes Questionnaire (MCMQ) were used to assess uncertainty in illness, mood state and coping style, respectively, in 126 patients with TMD.

Results: The total score of uncertainty in illness of the patients was 91.33 ± 16.38, which was at middle level. The total score of mood state was 37.93 ± 17.0. The order of coping style rated from high to low was confrontation (18.81 ± 3.65), avoidance (15.44 ± 4.26) and acceptance (10.41 ± 5.04). Acceptance was positively correlated with uncertainty in illness (r = 0.463, p < 0.001), and mood state (r = 0.187, p < 0.05). Avoidance and confrontation were negatively correlated with uncertainty in illness and mood state (r = -0.286, p < 0.01), (r = -0.175, p < 0.05), (r = -0.171, p < 0.05), (r = -0.221, p < 0.01).

Conclusions: Both uncertainty in illness and mood state were related to coping style. These data suggest that nurses should be trained to offer appropriate guidance to help decrease patients’ uncertainty in illness and relieve their negative emotions. Copyright © 2015, Chinese Nursing Association. Production and hosting by Elsevier (Singapore) Pte Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

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1. Introduction

Temporomandibular disorders (TMD) is the general term that describes the pain and noises of the temporomandibular joints (TMJ), restriction of mouth opening, and other clinical symptoms which could be caused by disorders of TMJ or masseter muscles [1]. The exact cause of TMD is unknown, though it is generally believed that TMD is caused by a number of different factors, including psychological factors, physical damage to the joint, bad chewing habits, occlusal disorders, autoimmunity, and abnormal structure of TMJ [2]. Recently, an increasing number of studies have regarded TMD as a chronic psychosomatic disease, difficult to diagnose or predict a prognosis [2–5]. TMD patients also often suffer from the uncertainties of the disease, which can increase tension, anxiety, and other negative emotions [4].

Uncertainty in illness is a cognitive deficit seen in patients who lack knowledge of their disease and are unable to predict the progression of diseases, and is common in many patients [6,7]. Uncertainty in illness and negative emotions not only affect the diseases progression and prognosis, but also influence the quality of life of patients [7]. When facing stresses, patients use different coping styles, which are the cognitive styles or behaviors that they use to deal with their stress, and the style they use plays an important role in patients’ physical and mental health [8]. Studies have shown that immature coping styles could not only increase TMD patients’ uncertainty in illness and negative emotions, but also affect their response to therapeutic regimens [9,10]. Therefore, it is important that nurses use psychological interventions in addition to traditional treatments to maximize the patient’s recovery. This study focused on the relationship between uncertainty in illness, mood state and coping style, with the goal of helping TMD patients use positive coping styles to reduce illness uncertainty, negative emotions and improve the quality of life.

2. Subjects and methods

2.1. Subjects

TMD patients who received surgical treatment for the first time in the Department of Oral and Maxillofacial Surgery, Hospital of Stomatology, Sun Yat-sen University in Guangzhou were recruited from September 2013 to September 2014. The inclusion criteria were as follows: (1) diagnosed with TMD, including myofascial pain, structural disorder disease (various kinds of disc displacement), arthritis (synovitis), osteoarthritis; (2) aged 18 years or over; (3) no issues with verbal communication; (4) willingness to cooperate with the study. Exclusion criteria: (1) comorbidity with rheumatic, rheumatoid and other systemic diseases; (2) history of major surgical traumas, mental illnesses or drug dependences. Questionnaires were issued to 126 patients and all questionnaires were returned.

2.2. Methods

2.2.1. Procedure and ethical considerations

A questionnaire survey was conducted by trained investigators on the first day of their inpatient stay in the hospital. The purpose and significance of the research were explained to the respondents before issuing questionnaires, and their anonymity was assured. Once informed consent was obtained, investigators filled in the questionnaires for the patients using unified language. The whole procedure took about 20 minutes. The questionnaires were collected immediately after completion.

2.2.2. Instruments

A self-designed questionnaire was issued, which included questions concerning age, gender, education background, marital status, income, medical costs etc. Mishel’s Uncertainty In Illness Scale (MUIS) was developed and is widely used to measure the disease uncertainty of adult inpatients [11]. MUIS was translated into Chinese by Shu-Lian Xu [12]. The MUIS consists of 33 items, covering four dimensions (ambiguity, complexity, inconsistency and unpredictability). Likert 5 grading method is used, and the total score is 32–160 (15 questions were not included in total score). Higher scores indicate stronger uncertainty (32–74.7: low; 74.8 to 117.4: medium; 117.5 to 160: high). A patient whose total score is higher than 62.5 is considered to have uncertainty in illness. The content validity of the scale was 0.9, and the Cronbach’s α was 0.921.

Brief Profile Of Mood States (BPOMS) was written by McNair et al., [13] and was simplified by Song Chi et al. [14] The six dimensions (tension, anger, depression, fatigue, vigor and confusion) include 30 items. Likert 5 grading method is used, and higher scores indicate that patients have unhealthier emotions. This study of the entire scale of the Cronbach’s α was 0.928.

Coping Modes Questionnaires (MCMQ) included 20 items, consisting of three dimensions (confrontation, avoidance and acceptance), frequently used in the clinical study of psychological stress of Chinese patients [15]. Likert 4 grading method is used, and the total score is 20–80. The higher score of dimension indicates patients tend to use the corresponding coping style. This study of the entire scale of the Cronbach’s α was 0.732.

2.2.3. Statistical analysis

All statistical procedures were performed on SPSS for Window software (version 17.0; Chicago, IL, USA). The scores of uncertainty in illness, mood state and coping style were described with means and standard deviation, and the relationship was analyzed by using Pearson correlation analysis. A p value of less than 0.05 was considered statistically significant.

3. Results

Patients were aged from 18 to 69 (36 ± 13.78) years (Table 1).