A Study of Applying the Use of Breathing Training to Palliative Care Patients, Based on the Bio-Psycho-Social Model

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Abstract : In clinical practices, it is common that while facing the unknown progress of their disease, palliative care patients may easily feel anxious and depressed. These types of reactions are a cause of psychosomatic diseases and may also influence treatment results. However, the purpose of palliative care is to provide relief from all kinds of pains. Therefore, how to make patients more comfortable is an issue worth studying. This study adopted the "bio-psycho-social model" proposed by Engel and applied spontaneous breathing training, in the hope of seeing patients' psychological state changes caused by their physiological state changes, improvements in their anxious conditions, corresponding adjustments of their cognitive functions, and further enhancement of their social functions and the social support system. This study will be a one-year study. Palliative care outpatients will be recruited and assigned to the experimental group or the control group for six outpatient visits (once a month), with 80 patients in each group. The patients of both groups agreed that this study can collect their physiological quantitative data using an HRV device before the first outpatient visit. They also agreed to answer the "Beck Anxiety Inventory (BAI)", the "Taiwanese version of the WHOQOL-BREF questionnaire" before the first outpatient visit, to fill a self-report questionnaire after each outpatient visit, and to answer the "Beck Anxiety Inventory (BAI)", the "Taiwanese version of the WHOQOL-BREF questionnaire" after the last outpatient visit. The patients of the experimental group agreed to receive the breathing training under HRV monitoring during the first outpatient visit of this study. Before each of the following three outpatient visits, they were required to fill a self-report questionnaire regarding their breathing practices after going home. After the outpatient visits, they were taught how to practice breathing through an HRV device and asked to practice it after going home. Later, based on the results from the HRV data analyses and the pre-tests and post-tests of the "Beck Anxiety Inventory (BAI)", the "Taiwanese version of the WHOQOL-BREF questionnaire", the influence of the breathing training in the bio, psycho, and social aspects were evaluated. The data collected through the self-report questionnaires of the patients of both groups were used to explore the possible interfering factors among the bio, psycho, and social changes. It is expected that this study will support the "bio-psycho-social model" proposed by Engel, meaning that bio, psycho, and social supports are closely related, and that breathing training helps to transform palliative care patients' psychological feelings of anxiety and depression, to facilitate their positive interactions with others, and to improve the quality medical care for them.

Keywords : palliative care, breathing training, bio-psycho-social model, heart rate variability

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