Influence of social psychological factors on care outcomes of patients with type-2 diabetes

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Background: Diabetes is a global, chronic disease that has been recognized as an important health issue in many countries. The prevalence rate of diabetes is very high in Taiwan that poses a serious threat to the health of people. Patients' physical and psychosocial factors all have an impact on the treatment result. However, this issue has not been extensively discussed in previous research.

Aim: The purpose of this study was to investigate the effects of socio-psychological factors on the care outcomes of type-2 diabetes.

Method: The study is a descriptive and correlation design; used structured questionnaires collected data from a large regional teaching hospital located in southern Taiwan. Instruments included a basic information form, Social Support Scale, Chinese version of Perceived Diabetes Self-Management Scale, Chinese version of Patient Health and Depression Questionnaire, Perceived Stress Scale, and Health-related Quality of Life Scale. Data were coded and analyzed using SPSS 22.0 software for Windows. The analysis methods included descriptive statistics, independent-sample t-test, one-way ANOVA, Pearson product-moment correlation, multiple linear regression, and binary logistic regression. The sample consisted of 133 patients. In this sample, women constituted the majority; most patients are married, aged between 60~69, having elementary education as highest level of education, and economically independent. Majority patients were diagnosed of the disease over the last 5~10 years.

Results: Results showed that among the diabetes patients, depression was significantly negatively related to social support (r=-.27, p<.05), psychological distress was significantly negatively related to social support (r=-.21, p<.05), psychological distress was significantly positively related to depression (r=.85, p<.01), quality of life was significantly negatively related to depression (r=-.64, p<.01) and psychological distress (r=-.59, p<.01).

Conclusion: Continuous outcome variables were analyzed using regression analysis. Results indicated that depression and economic independence jointly explained 32.1% of variance in the physical aspect of quality of life (27.9% by depression and 4.2% by economic independence). Depression and psychological distress jointly explained 61.3% of variance in the psychological aspect of quality of life (59% by depression and 2.3% by psychological distress). Economic dependence on others explained 3.1% of variance in the number of hospital stays. Depression explained 3.7% of variance in the number of emergency department visits. Education level explained 4.3% of variance in the number of complications. Categorical outcome variables were analyzed using binary logistic regression. Results showed that education had a significant effect on average glucose level over the last year (p>0.03). Depression had a significant effect on both the last HbA1c level (p<.05) and average glucose level over the last year (p>0.03). Results of this study suggest that when providing clinical care to diabetes, nurses should also consider the effects of socio-psychological factors on the care outcomes and provide necessary counseling and treatment of depression to enhance the effectiveness of care.

Biography
Pan Yen-Chu has graduated from Da-Yeh University, Taiwan in Master of Health Enterprise Management. Currently Pan Yen-Chu is working at St. Martin De Porres Hospital as a Chief Nursing Officer in Surgical Intensive Care Unit engaged in clinical management and teaching.

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