A Multivariate Testing of Illness Perception, Self-Management and Quality of Life of Taiwanese Cancer Patients

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Background

- Cancer is the leading life-long disease that affects people globally and is a leading cause of morbidity and mortality worldwide. More than 60% of the world's new annual cases occur in Africa, Asia, and Central and South America (World Health Organization, 2016).
- Chinese is the world's most common language ranked among first language speakers. Cancer has been the leading cause of death in ethnic Chinese (World Health Organization, 2016).
- Different cultural backgrounds can influence how patients perceive the disease, how they self-manage their health and disease process, and how these factors can influence their quality of life.
- To provide culturally sensitive health care, more understanding in the impact of cancer and coping with this disease among various cultural subgroups is important.

Purpose

- This paper tests a multivariate model to determine the associations among self-management, illness perception, and quality of life among a sample of Taiwanese cancer patients.

Method

- A sample of ethnic Chinese adult breast and colon cancer patients (N = 159) were included in the multivariate model analysis. The data were from an international collaboration project conducted in 2011-2012 at northern Taiwan region.
- After consent, each participant completed questionnaires for demographics, illness perception, self-management practice, and quality of life.
- Hierarchical multiple regression analysis was used for the model testing.

Measurement

- Illness perception was measured by Chinese version of the revised Illness Perception Questionnaire. Self-management practice was measured in the aspects of self-care efficacy, symptom self-management activity, and health maintenance resources. Quality of life was measured by the Quality of Life Scale. All questionnaires were available in bilingual versions.
- Measurement reliability for the sample: Illness perception (Cronbach's Alpha = 0.93 - 0.96), Quality of life (Cronbach's Alpha = 0.75).

Demographic Characteristics

- Age: 55 (10.39)
- Gender: 83% female
- Working Full time: 21%
- Karnofsky's Score: 78.43 (13.19)
- Religion: 72% Buddhism/Taoism
- Primary Caregiver: 33% identify "self" as the primary caregiver

Table 1: Comparisons between Breast and Colon cancer patients

<table>
<thead>
<tr>
<th>Variables</th>
<th>Breast (n = 62)</th>
<th>Colon (n = 54)</th>
<th>Total (n = 116)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karnofsky's Score</td>
<td>78.43 (13.19)</td>
<td>75.37 (14.11)</td>
<td>77.31 (13.78)</td>
</tr>
<tr>
<td>Education</td>
<td>15.75 (13.81)</td>
<td>12.79 (11.34)</td>
<td>14.64 (12.45)</td>
</tr>
<tr>
<td>Religion</td>
<td>72.78 (29.33)</td>
<td>85.31 (29.33)</td>
<td>78.43 (25.19)</td>
</tr>
<tr>
<td>Gender</td>
<td>83%</td>
<td>83%</td>
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</table>

Results

- On average, about five symptoms were reported from each participant. Stress and overwork were the common perceived causes of cancer reported in the sample.
- Walking and exercise were the commonly used daily health maintenance activities.
- The four-stage hierarchical multiple regression model explained a total 43% of variance in quality of life (R² = 0.436, p < 0.001). Among all variables, the dimensions of consequence and personal control from the Illness Perception Questionnaire, and Karnofsky's Score were the significant predictors in the model.

Conclusion and Implication

- The overall results from this study showed that enhancing cancer patients' self-care efficacy and empowering patients to have positive personal control and attitude toward cancer and its treatment can significantly contribute to their quality of life.
- While the sample was focused on ethnic Chinese patients in this study, the proposed predicted model can be applied in other population.
- Further research can explore culturally-appropriate interventions to assist cancer patients to support their self-management.
- Variation in illness perceptions by different types of cancer should be considered in cancer survivorship planning and patient education.

References

Padilla, G. V., & Grant, M. M. (1985). Quality of life as a cancer nursing outcome variable. ANS. Advances in Nursing Science, 8(1), 45-60.