Original Article

The Impact of Pain on the Quality of Life of Taiwanese Oncology Patients

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■ Abstract:

This study explored the relationship between participants' pain experience and quality of life (QOL). One hundred nine patients aged 18 years and older who had taken prescribed opioid analgesics for cancer-related pain at a teaching hospital in Taipei, Taiwan, completed the Brief Pain Inventory and European Organization for Research and Treatment of Cancer Quality of Life Group Questionnaire. The results indicated that participants in this study had experienced a mean functional QOL of 55.47 (SD 21.48), a mean symptom QOL of 41.97 (SD 16.89), and a mean global QOL of 42.13 (SD 20.69). Participants reported that in the previous 7 days, they had experienced a mean least pain of 1.75 (SD 0.18) and a mean worst pain of 6.81 (SD 0.24). The mean score for average pain intensity was 4.14 (SD 0.21), whereas the mean for current pain level was 2.53 (SD 0.21). The mean pain interference in the patients' daily activities was 3.50 (SD 0.22) on a scale ranging from 0 to 10. Furthermore, a significant correlation existed between global ($r = -0.375$, $p < .01$), functional ($r = -0.300$, $p < .01$), and symptom ($r = 0.405$, $p < .01$) QOL and worst pain. Moreover, the results indicated a significant correlation between global ($r = -0.461$, $p < .01$), functional ($r = -0.430$, $p < .01$), and symptom ($r = 0.505$, $p < .01$) QOL and pain interference. The current results support the observation that cancer pain substantially affects a patient's quality of life. The findings provide empirical support for the need for better programmatic efforts to improve pain management in Taiwanese oncology outpatients.

BACKGROUND

Pain is a major symptom for many patients experiencing a progressive stage of cancer. Research has revealed that approximately 43% to 63% of cancer patients—and 58% to 73% of those experiencing an advanced stage—suffer from chronic pain during active cancer therapy (van den Beuken-van Everdingen

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et al., 2007). Unrelieved pain may prompt suicidal ideation among cancer patients. Therefore, pain is the most feared consequence for many cancer patients (Holtan et al., 2007).

Pain is a significant and obvious cause of patient suffering, overwhelming all aspects of personal quality of life (QOL) (Eyigor, Eyigor, & Uslu, 2010; Holtan et al., 2007). In particular, pain results in the manifestation of beliefs of uncertainty and hopelessness and feelings of loss of control (Fortier, Batista, Wahi, Maurer, & Kain, 2012; Mystakidou et al., 2007; Vallerand, Templin, Hasenau, & Riley-Doucet, 2007), with emotional distress being the most consistent psychological variable associated with pain reported within cancer populations (Lehto, Ojanen, Dyba, Aromaa, & Kellokumpu-Lehtinen, 2006; Mantyh, 2006). Although interpretations of the definition of QOL differ, there is general agreement that the definition should include several aspects of the assessed individual's life. For instance, QOL can be described as a condition of well-being that consists of physical, psychological, social, and spiritual aspects (Kyranou et al., 2013).

As survival rates of cancer patients in multimodal therapy have increased, QOL has become a crucial indicator for cancer management in patients, although pain is widely considered to be one of the most important determinants of QOL (Tavoli, Montazeri, Roshan, Tavoli, & Melyani, 2008). At present, it is unclear exactly which pain experiences (intensity, interference, and relief) and patient characteristics interact to influence the QOL of patients who experience cancer pain. The aims of the present study included the following: (1) to describe the participants' pain experience and QOL, (2) to describe the participants' differences in QOL, and (3) to explore the relationship between the participants' pain experience and QOL.

METHODS

Study Population, Procedure, and Setting

The sampling frame comprised all cancer patients with pain who had been admitted to the oncology units of one teaching hospital in the Taipei area of Taiwan. Patients were eligible for enrollment if they met the following inclusion criteria: (1) had a cancer diagnosis; (2) had been prescribed opioid analgesics for cancer-related pain on an around-the-clock ± as-needed basis and had consumed them for at least the previous week; (3) were older than 18 years of age; and (4) were conscious and able to sign a consent form. The study was approved by the ethics committee of the institution in which the researcher worked, as well as the teaching hospital.

Data were collected from a convenience sample. Information about the patients who had been prescribed opioid analgesics for cancer-related pain and patients' ages were identified using hospital medical charts. Participants who met the eligibility criteria were invited to participate by the research investigator. Patients who indicated interest were provided further verbal information. When verbal consent was received, the patient information sheet, consent form, and self-administered questionnaire were provided so that the prospective patient could decide whether to continue participation. After participants had finished the questionnaire, the researcher checked for any missing information to document. The patients were asked to complete items they had missed, and then they were thanked for their valuable contributions. The researcher collected information about relevant medical characteristics from the patients' medical records.

MEASURES

Demographic and Medical Variables

Gender, age (years), education (years), spouse, religious practice, work status, financial source, and living status with family/relative/friend were included as demographic variables (Table 1). In addition, location of cancer, metastases status, time duration that the patient had experienced pain (months), and opioid side effects were included as medical variables (Table 2).

Brief Pain Inventory—Taiwanese Version

Pain experience was measured by the Brief Pain Inventory—Taiwanese Version (BPI-T) (Ger, Ho, Sun, Wang, & Cleeland, 1999). The BPI-T is a self-reporting instrument that assesses the multidimensional nature of pain, including its intensity and interference in life activities during the week preceding. Pain intensity is measured using four main variables: pain worst, pain least, pain average, and pain now, each ranging between 0 and 10, 0 signifying "no pain" and 10 signifying "pain as bad as you can imagine." For a total interference score, one variable can be computed by taking the average of seven items, each ranging from 0 to 10, with zero signifying "does not interfere" and 10 signifying "interfere completely." This score indicates the extent to which pain has interfered with general activity, mood, walking, working, relations with others, sleeping, and enjoyment of life.

The BPI is a well-known and often-used instrument for patients with cancer pain and has been validated in many nations (Badia et al., 2003; Ferreira, Teixeira, Mendoza, & Cleeland, 2011; Yun et al., 2004). The construct validity of the BPI was checked by developers of the instrument, using factor analysis