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Research Article

Experiences Living with Fatigue in Iranian Veterans Chemically Injured by Sulfur Mustard Gas: A Phenomenological Study

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SUMMARY

Purpose: Fatigue affects the quality of life. Evidence shows that the phenomenon of fatigue is experienced differently depending on the type of disease and its consequences. The aim of the study was to explicate the meanings of the experience of living with fatigue in chemically injured veterans.
Methods: The hermeneutic phenomenology approach was used in this study, with an emphasis on Van Mennen's viewpoint and approach. According to Van Mennen, six overlapping dynamic activities are recommended to conduct a phenomenological study. During unstructured interviews, the participants were asked to describe their daily living experiences with fatigue. The participants were individuals who were chemically injured due to exposure to mustard gas. After examining every statement in the interview text, extractions of the meaning units, clustering, and themes were performed.
Results: The data explication was based on the third to sixth stages of Van Mennen's approach. The experience living with fatigue was classified into four essential themes: fatigue as a chronic condition, as an unstable and affected situation, as a physical condition of the entire individual, and as a mental condition of the entire individual.
Conclusion: Due to unique social interactions and pathogenicity, victims of mustard gas experience fatigue differently than patients with other chronic diseases.

Introduction

From 1985 to 1990, more than 3,400 people suffered injuries, including respiratory (42%), ocular (39%) and skin complications (25%), as a result of Iraqi chemical attacks against Iranian soldiers and civilians (Khateri, Ghanei, Keshavarz, Soroush, & Haines, 2003). Due to the occurrence of late respiratory complications of mustard gas exposure, 20 years after this incident, the number of chemically injured victims has been reported at least 45,000 people (Ghanei & Harandi, 2008).

Although early and late pathophysiological outcomes of mustard gas exposure have been considered in terms of the physical aspects of the injured victims (Aghanouri et al., 2004; Ghanei & Harandi, 2008; Ghanei et al., 2008; Pourfarzam et al., 2009; Shohrati, Ghanei, Ali, & Navab, 2008), outcomes that affect the quality of life, daily activities and care and rehabilitation programs have received little attention. Several articles have stated that fatigue is one of the consequences and complications of mustard gas exposure (Berahmani, Abed Saeidi, & Kheiri, 2004; Ghazanfari et al., 2009; Pirasteh et al., 2009). Fatigue also causes a reduction in the physical daily activities of chemically injured veterans (Ghazanfari et al.). When the physical abilities of an individual are reduced due to chronic disease, their existential foundation is damaged, which may decrease their confidence and physical and mental abilities (Corbin & Strauss, 1987). Measuring the amount of fatigue with multidimensional questionnaire reveals that chemical victims suffer from fatigue with the score of more than average in their daily life, and that, this fact is directly related to the severity of the respiratory

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disease status (Najafi Mehri, Pashandi, Mahmoodi, Ebadi, & Ghanei, 2010). Although chemically injured veterans complain of fatigue and exercise intolerance in their activities in everyday life (Tavalaei et al., 2007), no studies in the scientific literature have examined the nature of this phenomenon and the experience of living with fatigue among chemically injured veterans. It has reported a decrease in the quality of life among chemically injured veterans, based on questionnaires examining scores for physical activity; it has also found the reduced physical activity of these veterans with respect to fatigue (Salari, Mahdizadeh, Ebadi, Aslani, & Naderi, 2009). The causes and symptoms of fatigue differ as a result of the variety of chronic disorders suffered by chemical injury victims. For example, does fatigue differ between chemically injured veterans and patients suffering from respiratory diseases, cancer and rheumatoid arthritis? What is the experience living with fatigue in chemically injured veterans? The evidence shows that the phenomenon of fatigue is defined and experienced differently depending on the type of disease and its consequences on the patient (Olsson, Lexell, & Soderberg, 2005).

Fatigue

Fatigue is one of the most common problems in primary care. Fatigue is considered a main complaint in 5–10% of patients and a major secondary symptom in another 5–10% (Sharpe & Wilks, 2002). Although accurate statistics on the prevalence of fatigue in chemically injured veterans have not been reported, fatigue has been reported to have frequency rates of 22% and 18% in samples from Norway (Loge, Ekeberg, & Kaasa, 1998) and England (Pigeon, Sateia, & Ferguson, 2003), respectively.

There is no clear agreement regarding the definition of fatigue in scientific studies. Some studies distinguish normal fatigue from mental and pathological fatigue, whereas others consider acute fatigue to be common and chronic fatigue to be pathological. From a general physiological viewpoint, fatigue is defined as a type of physical and mental failure, such as the inability to carry a load or to perform physical exercise (Evans & Lambert, 2007). From a psychological perspective, fatigue is considered a biological and psychological phenomenon that is associated with subjective feelings of inability, lack of energy, cognitive impairment, and behavioral dysfunctions (Boksem & Tops, 2008; Marcora, Staiano, & Manning, 2009). As a nursing diagnosis, fatigue is defined by the North American Nursing Diagnosis Association as "An overwhelming sustained sense of exhaustion and decreased capacity for physical and mental work at the usual level" (Doenges, Moorhouse, & Murr, 2008).

Regardless of the cause of fatigue, some researchers believe that fatigue is a concept that may be understood differently in various patients and professions (Ream & Richardson, 1996). These different perspectives are significant, especially with respect to the communication between nurses and patients. Therefore, it is necessary to grasp the meaning of fatigue among different patients as participants of phenomenology research.

The consequences of fatigue include reduced capacity and a lack of energy. The symptoms of fatigue include the inability to maintain and regulate the body's stability and a lack of capacity due to physical, bio-environmental and physiological factors. Because of the effects of fatigue on the quality of life, an accurate understanding of the concept of fatigue and a definition of its causes and measurable outcomes are necessary (Choi & Song, 2003). For people suffering from specific diseases, fatigue is an uncomfortable and annoying symptom. Fatigue has been mentioned and measured as a major problem in patients suffering from cancer (Gonzalez & Gorini, 2008), respiratory diseases (Small & Lamb, 1999), rheumatoid arthritis (Repping-Wuts, Hewlett, van Riel, & van Achterberg, 2009), neurological disorders (Chaudhuri & Behan, 2004; Ford, Trigwell, & Johnson, 1998), renal disease (Mollaoglu, 2009) and chemical injuries (Berahmani et al., 2004; Tavalaei et al., 2007).

As a member of the medical care treatment team, nurses play a fundamental role in the development and implementation of care and rehabilitation programs for chronic patients. To establish a nursing diagnosis of "fatigue", planning, implementing and evaluating the patient's care is essential. This diagnosis suggests that fatigue is a "sustained sense" of mental and/or physical exhaustion with a subjective origin. How do chemically injured veterans experience fatigue? This study was performed to explicate the meanings of the experience of living with fatigue in the chemically injured victims of mustard gas.

Methods

Study design

Phenomenological approach: One of the most appropriate methods to assess the phenomenology of the living experience is qualitative research using a hermeneutic phenomenology approach, which can explain the meanings and concepts of a phenomenon by reflecting on the real experiences of people (Mackey, 2005; Van Manen, 1997). Hermeneutic phenomenology has been recognized as a suitable method for studying phenomena related to nursing activities (Giorgi, 2000). Therefore, the hermeneutic phenomenology approach was used in this study, with an emphasis on Van Mennen's viewpoint and approach (Dowling, 2007).

According to Van Manen (1997), six overlapping dynamic activities are recommended to conduct a phenomenological study. This approach involves six major activities: (a) orienting toward and becoming preoccupied with a particular phenomenon; (b) seeking and expressing (through an ontological search) the phenomenon as it exists apart from the researcher's conceptualization; (c) contemplating inherent themes (phenomenological interpretation) that demonstrate the characteristics of the phenomenon; (d) analyzing by implication (transcribed analysis); (e) describing the phenomenon using art and creativity by rewriting, establishing and maintaining a strong and conscious relationship with the phenomenon; and (f) matching the context or field of research by continuously considering the components and the whole (Jorgensen, 2006; Van Manen).

Participants

The participants in this study were individuals who were chemically injured by mustard gas. All participants were considered chemically injured veterans of more than 25 years based on authentic documents from the medical commission. Due to the incidence of delayed symptoms arising from their experiences, the participants were treated for chronic respiratory diseases. In total, nine men between the ages of 42 and 53 years who had at least 25 years of history as chemically injured veterans participated in this study; they provided informed consent.

Data collection

In this study the researcher was the main research tool or primary data-gathering instruments. In fact the interviews put the researcher in the role of research instrument through which data is collected (Streubert & Carpenter, 2011). In the unstructured interviews, the participants were asked to describe their daily living experiences with fatigue. Narrative interviews are an appropriate method for disclosing the meaning of lived experience (Lindseth &