



"PHARMACISTS AND NURSES' ' KNOWLEDGE AND SELF-EFFICACY AND ITS EFFECT ON QUALITY OF LIFE AND SYMPTOM BURDEN FOR PATIENTS WITH GASTRIC CANCER RECEIVING CARE IN HEALTHCARE CENTERS AND HOSPITALS IN SAUDI ARABIA: A REVIEW OF LITERATURE".

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Abstract

Stomach cancer is one of the most common and deadly types of cancer all over the world, including the Kingdom of Saudi Arabia. Many studies have shown that the knowledge of Nurses' and Pharmacists technicians about health care services is still weak, despite the many measures taken by the Kingdom of Saudi Arabia to improve the concept of care. Health care for patients, but it still faces some obstacles. Therefore, this research paper aimed to review some previous literature related to the self-efficacy of Nurses' and Pharmacists technicians and the extent of their knowledge of providing health care to patients with stomach cancer and to identify the perspectives of Nurses' ' and Pharmacists technicians on barriers and needs towards health care services. The results of this research study demonstrated that previous literature indicated that Pharmacists Nurses' ' professionals have poor self-efficacy and knowledge regarding gastric cancer symptom management, quality of life improvement, and treatment management plans (eg, opioids) for patients in healthcare units.

Keywords: Pharmacists, Nurses', knowledge, Self-efficacy, Quality of Life, Gastric Cancer.

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DOI: 10.53555/ecb/2022.11.11.183

1. Introduction

Cancer can be defined as the disease group that starts in any tissue or organ of the body when the abnormal cell continues to grow uncontrolled. The uncontrolled cell grows beyond the boundaries and invades the surrounding area and organs (WHO, 2022). The latter spreading mechanism is known as metastasizing and is one of the leading causes of death worldwide, which accounts for approximately 9.6 million deaths in 2018 (Khader, 2021). The cancer burden is rising and continues to grow globally, leading to tremendous financial, emotional, and physical burdens on patients, families, the healthcare system, and the community (Abbasi, et al, 2019).

Gastric cancer, also known as stomach cancer, occurs when the cancerous cell forms within the stomach lining (Al Khalailah & Al Qadire, 2012). Most gastric cancers (approximately 90 to 95%) are adenocarcinomas, which develop from the glands in the innermost stomach lining. There are two types of gastric cancer: cardia gastric cancer and non-cardia gastric cancer (Bray et al., 2018). Gastric cardia cancer is found in the esophageal-gastric junction. According to Abbasi and Moghaddam distal stomach cancer is another name for non-cardiac cancer that stems in the stomach's lower region (Abbasi and Moghaddam, 2019).

Gastric cancer is one of the most prevalent and fatal cancers that has been reported around the world. Every year one million adults are diagnosed with gastric cancer globally (Bray et al., 2018). The prevalence and incidence of gastric cancer differ from region to region and culture to culture. There is a higher prevalence in developed countries compared to less developed countries. The incidence rate is highest in Latin America and Eastern and Central Asia (Dehghani et al., 2020).

Attributed to outdated guidelines, less availability of treatment, and inadequate medical facilities and services provided to patients (Bray et al., 2018). The fatality associated with gastric cancer is highest in Iran, Kyrgyzstan, and Turkmenistan (Balakrishnan et al., 2017). Gastric cancer accounts for 4.6% of all cancer-related deaths in Saudi Arabia, placing gastric cancer among the top ten cancer-related deaths (Aqel et al., 2020). The 5-year rate of survival following a gastric cancer diagnosis is 32% in patients suffering from poorly differentiated tumors (Aqel et al., 2020).

The prevalence of gastric cancer rises with advancing age and reaches a plateau between 55 and 80 (Arnold, et al, 2014). The average age of patients diagnosed with gastric cancer is 68. Every year, almost six out of ten persons diagnosed with

gastric cancer are 65 or older. Around 35% of patients with gastric cancer are detected at distant stages of the disease (Alnazl. & Abojedi,. 2018). The stage of the disease determines the prognosis of individuals with gastric cancer at the time of diagnosis. Nonetheless, patients with advanced gastric cancer have a poor prognosis; people with early-stage gastric cancer have a 5-year survival rate of more than 90% (Hirasawa et al., 2018).

2. Risk Factors for Gastric Cancer

Gastric carcinogenesis is a multifactorial and multistep process. However, the intestinal of gastric cancer is generally associated with environmental factors, including diet, lifestyle and *Helicobacter pylori* infection. The other risk factors associated with gastric cancer are ulcers, gastric reflux, chemical exposure, gastric surgery, pernicious anemia, gender, and race (Abrams et al., 2013, Currow et al., 2015, Hauptmann et al., 2015).

Evidence suggests that men are more likely to develop gastric cancer than women, in developed nations, males have a three-fold higher likelihood of gastric cancer than females (Sharkey et al., 2018). However, this ratio is 1.83 in developing nations. In addition, males have a 1.87% risk of acquiring gastric cancer, whereas women have a 0.79% risk. Some of the risk factors can be categorized as behavioral and environmental factors; which include smoking, alcohol, obesity, diet, and socioeconomic status (Ladarius-Lopes et al., 2008).

Tramcars et al. (2012) stated that smoking is a prime contributor to gastric carcinoma development. Edgren et al (2010) conducted population-based research to evaluate the impact of smoking and the prevalence rate gastric cancer. As per the results of this study, smoking exposure at any time of the patients' life leads to a 45% and 18% risk of the development of cardia gastric carcinomas or a non-cardiac variant of gastric carcinoma, respectively. Although alcohol consumption has not been demonstrated as having a direct association with gastric cancer, alcohol intake is recognized as the risk factor for the progression of gastric cancer and the cumulative impact of smoking and alcohol intake increases the development of non-cardia gastric cancer 5-fold (Fortunato & Rushton, 2015).

Hsu et al. (2017) revealed that salted food items and obesity had been associated with cardia gastric cancer compared to a person with a balanced diet and normal body mass- index. A diet consisting of a high amount of fruit and fresh vegetables is one of the protective factors which

help the patient to fight the risk factors associated with gastric cancer development. Patients with gastric surgery due to benign illness have a 2 to 4 % increased gastric cancer risk. This is related to reducing acid formulation in the gastric remnant and is also associated with chronic 16 inflammations because of bile refluxing in the gastric remnant.

However, the survival of the patient with gastric cancer depends on various factors, including cancer stage, diet, and intervention type. As per the results presented by Aqel et al. (2020), the survival rate of the patient with stage 1 gastric cancer (65%) is better than the stage 2 (35%) and stage 3 (25%) gastric cancer. Furthermore, there is no data for the 5-year survival rate of the patient with stage 5 gastric cancers, as most of the patients die within a year after the cancer diagnosis (Aqel et al., 2020).

Palliative Care:3.

Palliative care is person-centered care provided to patients and their relatives dealing with the obstacles of a deadly illness. The focus of palliative care is alleviating and preventing suffering through early screening, accurate assessment, pain management, and other psychosocial, spiritual, and physical support (Al-Mahrezi and Al-Mandhari, 2016, Dehghani et al., 2020). In addition, palliative care emphasizes the patient's care toward the end of life.

The authors demonstrated that palliative care is paramount in Nurses', Pharmacists technician care and practice while rendering holistic and humanistic care to the patient. Under palliative care, the nurse must know about pain management, spirituality grounded care, religiously grounded care, and holistic care. Any medical Nurses' staff with less knowledge and inexperience in delivering palliative care can increase the chances of medical error (Dehghani et al., 2020).

The Nurses', Pharmacists technician care attitudes towards and knowledge about palliative care services are considered core needs for improving the quality of palliative services (Heupel- Reuter et al., 2019). Thus, Nurses', Pharmacists, self-efficacy and knowledge of palliative care require improvement to improve patients' quality of life. There are five palliative cares; they are different in pain management, physical problems, family needs, and psycho-spiritual problems; therefore, they require different levels of knowledge among healthcare professionals (Currow et al., 2015). These palliative stages are as follows:

Stable stage: In this stage, the patient's symptoms are adequately managed by the established care plan. The patient's situation is reasonably stable, with no new concerns visible. Additional interventions are planned to preserve the quality of life and symptomatic burden. The phase ends when the patient's needs change, necessitating revisions to the existing care plan.

Unstable stage: The patient develops a new health issue that was not anticipated in the current care plan because the present problem severity rapidly worsens or because the patient's condition changes unexpectedly, and emergency therapy is needed.

Deterioration stage: The palliative care plan addresses the patient's anticipated needs in this stage. However, the patient's vital functions decline, and problems worsen. This stage ends with the dying process, which refers to the last stages of a patient's life.

Dying stage: This stage means the patient will pass away within days. This stage ends with the ending of the life of a patient.

Deceased stage: The patient has deceased, and the death certificate is completed. This is palliative care's final stage.

5. Palliative Healthcare system in Saudi Arabia:

In AL- Riyadh provided palliative care services, preceded by many countries in the region, as the Saudi health care system achieved many improvements in the field of cancer care, and worked to provide medical assistance to Nurses', Pharmacists, and doctors with the aim of training them to provide palliative care to patients. However, Nurses' and Pharmacists technicians in Saudi Arabia still face many difficulties and issues that limit the effectiveness of services and the quality of life for patients. The most prominent of these obstacles is the presence of many misconceptions among Nurses'. However, despite the many measures that have been taken to develop the concept of care, In palliative health care, myths such as the fear of patients becoming addicted to opioids prevail among patients, In addition, there is a lack of Nurses' ' preparation and training to provide palliative care services for cancer patients.

6. Healthcare for patients with gastric cancer:

Advanced gastric cancer is accompanied by numerous symptoms like gastric outlet obstruction, bleeding, and ascites, which necessitates palliative care resection. For managing bleeding, arterial embolization and an endoscopic approach are recommended; however, gastrectomy becomes necessary in a few circumstances (Harada et al., 2020). Gastrectomy is favored over gastric bypass surgery for the treatment of blockage. Gastrectomy is required to treat perforation; however, the morbidity rate after surgery is significant. In some groups, whether palliative gastrectomy can enhance stage IV prognosis in gastric cancer patients is a point of contention (Harada et al., 2020). Research has shown that patients who undergo palliative gastrectomy have a better prognosis than those without a palliative gastrectomy (Hsu et al., 2017). Another palliative care for gastric cancer is palliative care radiation, a treatment option for localized symptoms such as blockage, pain, and bleeding (Bingley & Clark, 2017).

Nurses', Pharmacists, are the most crucial palliative care team members because they address care's functional, physical, spiritual, and social components. Therefore, it is essential to critically evaluate the role of the Nurses', Pharmacists, while rendering palliative care to patients with gastric cancer. Furthermore, various factors and dimensions, including knowledge, self-efficacy and working hours of Nurses', Pharmacists staff, impact the palliative care process both positively and negatively. Hence, to gather thorough information regarding the Nurses', Pharmacists, role in rendering palliative care to gastric cancer patients, this study critically reviews the literature on Nurses' self-efficacy and knowledge of palliative care, quality of life and symptom burden, and the barriers and challenges facing Nurses' ', Pharmacists when providing effective palliative care. Lastly, the findings of this review will help inform the design of the proposed study.

Pharmacists, Nurses', self-efficacy and knowledge:7.

Self-efficacy is defined as a person's belief in their ability to plan and carry out actions to achieve their goals. In addition, self-efficacy relates to an individual's belief in their ability to handle specific situations (Khan et al., 2017). Therefore, the assessment of self-efficacy and knowledge of Nurses', Pharmacists about rendering palliative care to critically ill patients assumes an essential role in providing high-quality services at clinics

and hospitals (Abbasi-Moghaddam et al., 2019, Robb and Dietert, 2002). Several tools, such as the nurse competence tool (Kim et al., 2020).

In a study conducted by Kim and colleagues (2020) with the aim of assessing Nurses' and pharmacists attitudes and knowledge in the field of health care and self-efficacy, data were collected using the Health Care Self-Efficacy Scale, but the results indicated that the average knowledge score was low.

8. Quality of Life and Symptom Burden:

Quality of life and symptom burden in patients with gastric cancer are the main parameters that should be evaluated to estimate the quality or standard of palliative care. The typical symptoms of gastric cancer are pain, nausea, dyspnea, and bleeding. Therefore, the control of symptoms and enhancing the psychological quality of life of patients and their families are considered the priority of palliative care (Cho, Kang, & Kim, 2016). Therefore, numerous studies have been performed to evaluate the quality of life and symptom burden of patients with gastric cancer.

Ngoc Sadighi and colleagues (2019) assessed the quality of life of patients with gastric cancer (n=182) using the 15-dimensional (15D) tool, a holistic, generic, self-administrated tool for estimating the life quality of adults (Hannula et al., 2014). Results revealed that the 'symptoms and discomfort' and 'average activity' dimensions of the quality of life tool received the lowest scores, 0.85 and 0.86, respectively. This suggests impaired daily living activities in gastric cancer patients; similarly, Chau et al. (2019) research examined the quality of life in 989 patients with gastric cancer through the Quality-of-Life Questionnaire (QLQ) C30.

The findings revealed that disease advancement leads to worse quality of life. The quality of life dimension most affected in patients with gastric cancer is functional and performance status. Finally, (Guraya & Barr, 2018) examined the unmet demands of patients with gastric cancer at various stages of their disease (n=223) to recognize factors that contribute to their unfulfilled needs and quality of life and to investigate the relationships between unmet needs, anxiety, physical symptoms, and depression. The results revealed that the medical system and the information sector had the most unfulfilled demands. Further, unmet physical and everyday demands, the severity of illness, depression, and symptom interference directly affect the quality of life.

Sadighi and colleagues examined the quality of life of 105 patients with gastric cancers in Iran using the European organization for research and treatment of cancer (EORTC QLQ-STO22) instrument.

This suggested that the most prevalent symptoms in gastric cancer patients were anxiety, stomach pain, eating restrictions, reflux, and dysphagia. Similarly Chau and coworkers assessed the quality of life of 1020 gastric cancer patients using the EORTC QLQ-C30 questionnaire, reporting the main symptoms that influence the quality of life for gastric cancer patients (Sadighi et al., 2009).

9. Pharmacists, Nurses', Challenges to Providing Palliative Care Services:

Pharmacists, Nurses' face several barriers to providing effective palliative care (Midtbust et al., 2018). Various studies have examined Nurses' barriers and challenges to providing effective palliative care services. Al Khalaileh & Al Qadire (2012) carried out quantitative cross-sectional research based on a translated questionnaire survey of 96 Nurses' working in the oncology departments of three Saudi hospitals to investigate the practical challenges of palliative care and cancer management for patients. The subscales measuring physiological and harmful impacts of drugs had the highest mean scores: 2.7 and 2.6, respectively, indicating a significant addiction risk and a reduced ability to detect new pain.

On the other hand, the subscales measuring fatalism received the lowest average score (1.6), showing solid beliefs in the efficacy of drugs to treat pain. The study concluded that Saadian Pharmacists, Nurses' observed numerous challenges related to cancer pain management, including less knowledge and experience, strategies used to cope with cancer-related pain, and regulatory factors. Therefore, courses related to pain management should be integrated widely in Pharmacists, Nurses' ' healthcare centers, in addition to continued education and practical training, to give the requisite understanding of cancer pain treatment to oncology professionals (Al Khalaileh & Al Qadire, 2012).

Investigated the challenges, barriers, and experiences of 24 oncology registered Nurses' working in palliative care units at oncology hospital wards using a descriptive, exploratory research methodology. The results reported four major challenges in offering palliative care: role ambiguity, lack of understanding of the purpose of palliative care (Chau et al., 2017).

According to Chan et al. (2019), there are five barriers to effective palliative care, including "

pharmacists, nurses', are overburdened with work Physicians are overburdened with work inadequate private space or room, Families have excessive expectations about the prognosis of their loved ones" and Nurses' have little experience with end-of-life care." Critical components for effective hospital palliative care include patients' and relatives' participation in decision making and end-of-life care, environmental issues, documentation at the health system level, and the need for more expertise and workforce at the policy level of palliative care. Pharmacists, nurses', with better understanding, attitudes, and knowledge concerning palliative care may assist patients in improving their quality of life while reducing stress in their care partners (Wong et al, 2021).

Conclusions:10.

One of the essential variables impacting the effective delivery of palliative care is the self-efficacy and knowledge of Pharmacists, Nurses' which influence patient assessment and intervention. This review of the literature on self-efficacy and knowledge while Pharmacists, Nurses' providing care to patients with gastric cancer and , Pharmacists, Nurses' perceptions of the barriers and needs towards palliative care services. The literature suggests that Nurses' have poor self-efficacy and knowledge concerning managing cancer symptoms, enhancement of quality of life, and therapy management plans (like opioids) for patients in palliative care units. Unfortunately, few studies have focused on palliative care in Saudi Arabia. This suggests a significant gap in literature studies in this domain. The literature review's findings highlight Pharmacists, Nurses' challenges while providing palliative care. Studies suggest that they are challenged physically and emotionally when providing palliative care to patients and frequently lack confidence in their abilities. Out of nine reviewed self-efficacy stated by the Nurses' , combined with additional hurdles to efficient communication between Nurses' and patients, and their relatives, makes providing care in the acute setting extremely difficult. These obstacles highlight Pharmacists, Nurses' need for better education and training.

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