Hepatitis B and C Patient' Education and Counselling Support by Healthcare Professionals at Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa.

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Abstract

This study investigates the important role of healthcare professionals in providing support through counselling and education to Hepatitis B and C Patients at Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa. Information carrier factors of a comprehensive model of information seeking were applied to predict the implications of counselling and education provided by healthcare providers at Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa. Quantitative data were collected from doctors and nurses using the probability cluster sampling technique. Semi-structured printed questionnaires were administered to doctors and nurses who consented to participate in the quantitative data collection. A correlation test of FISHER and a Chi-square test was used for data analysis to enable the researchers to describe the relationship between different modalities of respondents' bio-data and responses. Findings revealed that most of the doctors and nurses counselled hepatitis B and C patients using verbal and direct methods during consultations and while receiving treatment in the hospital. In contrast, there was diverse opinion about type of education programs that healthcare providers have for hepatitis B and C patients while receiving treatment at the hospital. This study concludes that counselling and health education focusing on HBV and HCV disease is essential for the prevention, management and possible eradication among community members and hospitals. Implementing health guidelines on hepatitis eradication programs by World Health Organisation is crucial to supporting the creation of health-related educational, counselling, and social awareness programs for patients visiting hospital facilities especially in developing countries.

Keywords: Counselling, Education, Hepatitis B and C, Patient education, Health education, Healthcare providers, South Africa.

Introduction

Hepatitis B (HBV) and Hepatitis C (HCV) are dangerous diseases prevalent in many countries worldwide (World Health Organization, 2024:1). Record shows that over 325 million people live with hepatitis B and C worldwide (WHO, 2024). Hepatitis B contains acute illness with symptoms that last several weeks, including yellowing skin and eyes (jaundice), dark urine, extreme fatigue, nausea, vomiting and abdominal pain. A mild illness due to Hepatitis C infection can extend from a few weeks to a lifelong severe illness due to exposure to infected blood and drug use, unsafe sexual intercourse, and transfusion of unscreened blood (WHO, 2014). There are different types

of hepatitis, ranging from type A, B, C, D, and E (WHO, 2024). However, the type B and C were the focus of this study. The HBV and HCV in patients can result in chronic liver cirrhosis, cancer, and viral hepatitis-related deaths in hundreds of millions of people. Research has predicted that 4.5 million hepatitis-related deaths could be preventable through vaccination, diagnostic tests, and medicines.

Interestingly, prevention through counselling and educational campaigns have significantly impacted the eradication of diseases in a similar context (malaria, Ebola, measles, or influenza). A total elimination targeted at HBV and HCV infections can be achieved by 2030, especially in low- and middle-income countries if education and counselling strategies are introduced and effectively implemented. HBV and HCV disease prevalence occur in different regions worldwide, such as Eastern European, American, Western Pacific, Southeast Asia, and African regions (WHO, 2014; Onyekwere *et al*., 2016). The prevalence rate of HBV and HCV in African areas varies in percentage due to insufficient and inaccurate data.

Regional variability of the prevalence was reported in sub-Saharan Africa (Hung *et al*., 2021; Musa *et al*., 2015). Given the epidemic nature of HBV and HCV, counselling, and education regarding the impact of the spread of the disease must be provided to the patients and the public to enable them to access crucial preventive information (Winter *et al*., 2013:66). The role of counselling and education cannot be ignored for the prevention, control, and eradication of diseases, and for patients to access adequate care, treatment, gain health recovery, and health improvement depending on availability and access to counselling and education through the proper channels (WHO, 2024).

Counselling and education are among the innumerable strategies used by healthcare professionals to help patients better understand the effective ways of managing their health conditions, adhere to treatment plans, improve general health conditions, and prevent chronic diseases like Hepatitis B (HBV) and C (HCV infections. Counselling is professional guidance provided by an expert to an individual in health needs using psychological methods *(Merriam-Webster*, 1828). It can also be referred to as an approach healthcare professionals use to enhance effective management and recovery processes in patients suffering from chronic ailments (Strauss et al., 2007). Counselling involves personal interviews and testing interests and aptitudes to reach the minds of individuals in need of such services (Sommers-Flanagan & Sommers-Flanagan, 2018). On the other hand, it is commonly used as a vital information provision strategy for managing the social and psychological state of health of patients suffering from chronic diseases such as HIV/AIDS, Cancer, HBV and HCV, which might eventually lead to psychological or emotional distress in patients. Counselling and education, when provided by medical experts during consultation, could play a crucial role in providing psychological and emotional relief for patients with chronic disease (WHO, 2024).

Education is an essential strategy for improving people's knowledge regarding preventive methods, pain management, adherence to medications for chronic diseases such as HBV and HCV (If contacted), and cure (Sha *et al*., 2013). The purpose of patient education by healthcare providers is to contribute to improving patients' quality of life (Sha *et al*., 2013). Indeed, education is essential when managing patients' health. In a practical sense, Turner *et al*. (2017:4605) emphasised the need to improve patient support through education, especially when undergoing screening and treatments. Knowledge of a patient's illness condition is fundamental because it

helps to increase awareness. Besides, education helps to effect changes in attitudes regarding health practices and improve individual patients' health, especially when undergoing therapies for a chronic health condition (Haq *et al*., 2014). Sharif *et al*. (2005) revealed that psycho-educational intervention improves patients' quality of life. This could be achieved through education intervention to assist family members of patients suffering from chronic diseases to get some relief. There are different methods by which counselling, and education can be carried out depending on the context and preferred mode of instruction. According to Snow and Coker (2020), verbal methods of counselling and education can be facilitated through direct communication between the counsellor or educator, individual or group. In a one-on-one conversation, the counsellor takes the lead in addressing specific issues or goals, providing a sense of support and guidance (Boswell et al., 2015). Counselling, whether in a one-on-one or group settings, is a form of communication that encourages individuals with shared concerns and experiences to learn from each other, fostering mutual support and learning (Lamprecht & Pitre, 2018; Boswell et al., 2015). In this current study, emphasis is laid on verbal method of counselling and education given that such mode of communication and instructions are relevance to patients' education and counselling.

Patient education is an essential component that can be used for the prevention of chronic diseases such as HBV and HCV-related diseases. Patients' education has been reported to help improve the knowledge of patients and the general public to affect successful lifestyle or behavioural changes (Adams, 2010). A study by Nutbeam (2000) relates patient education to a combination of learning experiences that influence behaviour change and produce changes in the health knowledge, attitudes and skills needed to maintain or improve good health conditions. Undoubtedly, education helps patients understand the importance of treatment adherence, the complications of non-adherence to treatment, and the need for assistance with therapy and other care (Cacoub *et al*., 2008; Sharif *et al*., 2005). A combination of education and counselling for patients helps to reduce knowledge gaps regarding HCV-related complications (Boyer & Faillebin, 2013, p. 41). It can also help improve patients' knowledge of disease management and attitude and promote behavioural changes in patients suffering from chronic diseases (Haq *et al*., 2014). M'Imunya *et al*. (2012) pointed out that patients' education and counselling intervention may increase the rate of successful treatment completion. A similar study by Cho and Park (2016) maintained that "education programs are needed to meet the needs for information on the disease for patients with chronic hepatitis C participating in clinical trials and help the general public acquire knowledge" or change the view on these diseases.

Health education refers to a method used to inform people (individually or collectively), persuade and enable them to adopt lifestyles that can improve health and reject harmful *habits (Online Dictionary of Nursing*, 2021). For instance, HBV and HCV patients can be educated using different techniques and approaches to inform or persuade them individually or collectively to adopt lifestyles to improve their health conditions (Cinar *et al*., 2015). In order to create awareness of chronic diseases and the associated risk factors involved, counselling and education could serve as an effective intervention method (Raza *et al*., 2013).

Healthcare providers refer to individuals and institutions responsible for delivering medical care and treatment services to patients and the general public (Pina et al., 2015). The list includes physicians who diagnose, treat, and prevent illnesses; nurses who provide patient care, administer medications, monitor health, educate patients, and develop treatment plans across different

settings; pharmacists and allied health professionals; and health facilities that provide inpatient care, emergency services, surgeries, and specialised units like intensive care (Pina et al., 2015). By working together, healthcare providers ensure comprehensive patient care and improved health outcomes. Healthcare providers are the individuals and institutions that deliver medical care and treatment services to patients and the general public (Loutfy et al., 2017). These include the physicians who diagnose, treat, and prevent illnesses (Newburger et al., 2004), nurses who direct patient care, administer medications, monitor health and educate patients and provide treatment plans in many settings (Aschenbrenner & Venable, 2009), and pharmacists, and allied health professionals. The healthcare providers work together to ensure comprehensive patient care, including the health facilities providing inpatient care, emergency services, surgeries, and specialised units like intensive care (Conway et al., 2006). The role of healthcare providers in counselling and educating patients is to emphasise prevention strategies to create awareness and control the spread of diseases (Kavarthapu & Sankari, 2017). Nurses and experts in medical sciences are expected to educate or counsel patients to relieve them from anxiety and depression while receiving treatment (Cinar *et al*., 2015). As a result of traumatic experiences due to complications of HBV or HCV, education, information, and advice by obstetricians, peri-natal nurses, and other experts are crucial (Yang *et al*., 2013) to help patients recover speedily.

Treatment adherence is a vital strategy to help HCV patients improve their health conditions for speedy recovery (Surjadi *et al*., 2011). Findings show that the majority of patients do not adhere to medication therapies unless they are counselled and educated by healthcare professionals. The consequences of non-adherence to treatment and medications are severe for chronic and devastating infectious diseases like HBV and HCV. Non-adherence could result in prolonged periods of infectiousness, deterioration, and the occurrence of drug-resistant patients. Nurses working in hospital facilities must counsel patients periodically during their hospital visitations. Such strategies will likely increase patients' chances of completing their treatment procedures.

In South Africa, research shows that HBV and HCV remain significant health threats among patients and healthcare providers (Atlaw *et al*., 2021; Vo Quang et al., 2021). Some studies reported a higher prevalence rate of 69.8% in adults than children (Chonco & Rangiah, 2019; Semugoma *et al*., 2017). Due to a poor understanding of the complications of HBV and HCV in patients, and poor knowledge of the value of testing and treatment of HBV and HCV, many patients refuse to accept treatment or accept medications (Cacoub *et al*., 2008). Besides, limited studies focused on healthcare professionals' counselling and education in providing information for HBV and HCV patients in the South African context. Therefore, this study intends to answer the role healthcare professionals play in counselling and educating HBV and HCV patients at a selected tertiary health institution at the Ngwelezane Hospital, KwaZulu-Natal, South Africa. A relevant theory such as CMIS was considered suitable for guiding this current study in predicting the role of healthcare professionals' counselling and education in providing information for HBV and HCV patients. Despite criticisms, previous studies validated the suitability of CMIS information carrier factors to examine studies in other contexts as a theoretical framework appropriately.

Theoretical Foundation

This study was built on the theoretical perspective of Johnson and Meischke (1993) comprehensive Model of Information Seeking (CMIS). The model (CMIS) was adopted because the factors described in the model are highly relevant to the concept and purpose of this study. CMIS focuses on "antecedent, information carrier, and information-seeking factors"; however, information carrier factors are relevant to the context of this study given that information provided through counselling and education by healthcare professionals (doctors and nurses) for patients' health improvements is crucial.

Information carrier factors: The information carrier factors of CMIS by Johnson and Meischke (1993:343) were applied to predict health-related information provided by healthcare professionals as information carriers through counselling and educating the potential HBV and HCV patients. CMIS constructs of information carrier factors were applied to establish the outcome of providing counselling and education, which likely promote emotional, social and psychological support for HBV and HCV patients while receiving therapies in the healthcare centres. In addition to establishing the outcome of counselling and education provided by information carriers (doctors and nurses), the researchers envisaged that counselling and education by healthcare professionals would likely provide a better understanding of the patient's health challenges, which might likely lead to better health outcomes if applied.

Counselling and education: CMIS was improved with the additional role of healthcare providers through counselling and education. Health education contributes to the improvement in the quality of life of patients. It is also regarded as an essential strategy to improve people's knowledge regarding preventive methods, pain management, and medication adherence for chronic diseases such as HBV and HCV and cures. Education helps to effect changes in attitude regarding health practices in the life of individual HBV and HCV patients (Haq et al., 2014; Sha, 2013; Raza, 2013). Counselling for patients is equally very important for HBV and HCV patients, given that many have suffered from depression and anxiety due to the effects of the disease (Buller-Taylor et al., 2018). In such a situation, there is a need for emotional and psychological support through particular interventions to allow patients to have relief from pain as well as reduce emotional tension and anxiety (Lee & Hawkins, 2010).

Statement of Problems

South Africa, with an estimated population of over 59 million people in Africa and the most industrialised country in the continent, with technological advancement, a diversified economy and a robust healthcare system in Africa, is still faced with healthcare challenges due to limited knowledge of the role of healthcare professionals in counselling and educating the populace about the danger of exposure to HBV and HCV infections claiming millions of lives of people in the sub-Saharan African regions including South Africa (Statistica, 2021; Invest et al., 2021; WHO, 2021; Mogashoa & Pelser 2014). Providing health information through counselling and education on this dangerous disease by caregivers to the general public is critical (Shimakawa *et al*., 2017).

South African government established health policies and legislations to manage the spread of deadly diseases such as HIV/AIDS, Diabetes, and Tuberculosis, among others, to ensure compliance in delivering quality care (Moyakhe, 2014). In fact, qualitative healthcare delivery is regarded as a constitutional responsibility of the South African government (Stuckler *et al*., 2011). The purpose was to ensure qualitative healthcare delivery in South Africa and the surrounding

countries, communities, and municipalities (Mogashoa & Pelser, 2014). However, despite the numerous health information provisions programs provided by the South African government to meet the people's healthcare needs, access to health education and counselling is limited and needs to be improved (Maphumulo & Bhengu, 2019). Knowledge of the treatment provided by the physicians is crucial to allow patients to choose the best treatment they desire (Boyer & Faillebin, 2013; Astone *et al*., 2003; Azodo *et al*., 2010). Meeting the information needs of patients is linked to effective counselling and education by healthcare providers.

Given the challenges encountered related to patients' lack of understanding of their medical conditions, diagnosis, causes of their condition, implications, potential complications, and why a particular treatment path is needed, it is essential that healthcare providers counsel patients to empower them with the knowledge to make well-informed decisions about their treatment options and why they must stick to a treatment plan.

Theories have been explored to determine a suitable measure to fill a knowledge gap (Gaziano & Gaziano, 2014). To determine a suitable theory to fill the knowledge gap in studies applying the information carrier factor of a comprehensive model of information seeking, a scoping literature review was conducted by searching through several databases to identify a gap in studies focusing on the role of healthcare professionals in counselling and educating the Hepatitis B and C Patients at Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa. The review reveals that studies focussing on educating and counselling HBV and HCV patients were limited in the South African context (Ibinaiye, 2021). It was on this basis that this study investigated the role of healthcare professionals in counselling and educating HBV and HCV patients at Ngwelezane Tertiary Hospital, KwaZulu, South Africa, to inform the best strategies for information provisions for HBV and HCV patients receiving therapies in the hospital. This study provides answers to the following research questions set for the study.

Research Question

- What counselling program do healthcare professionals have for hepatitis B and C patients while receiving treatment at the Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa?
- What education program do healthcare professionals have for hepatitis B and C patients receiving treatment at the Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa?

Methodology

The study location is one of the most wide-ranging tertiary healthcare facilities and a referral hospital providing services to District, Regional, and Tertiary Services and communities from Uthungulu, Umkhanyakude, and Zululand Districts in South Africa. This study was grounded in the idea of positivists researchers, given that positivists' ideas in the collections of quantitative data is critical to determine the type of information healthcare givers (doctors and nurses) provide while counselling and educating patients regarding individual health challenges. Quantitative data was collected from doctors and nurses working at Ngwelezane District Tertiary Hospital. Quantitative data were collected from doctors and nurses that consented and availed themselves and sampled using the probability cluster sampling technique. Eighteen doctors were sampled at 85% confidence interval (CI), and twenty-three nurses at an 85% confidence interval (CI). Doctors and nurses that declined to respond were not included in the study.

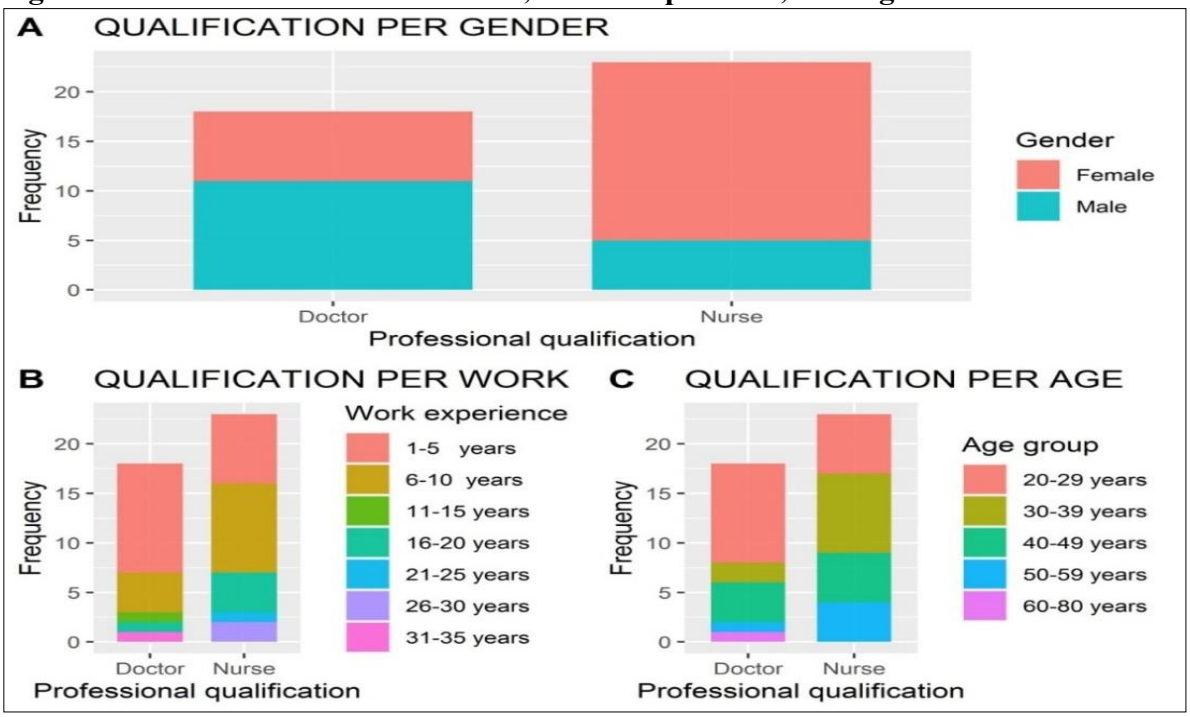
Procedure for Data Collection: The researcher's data collection procedure in this study involved (1) recruiting the respondents for quantitative data in Ngwelezane District Hospital, KwaZulu-Natal, South Africa, between November and December, 2020. The researcher and the research assistant briefly discussed the purpose of the study with the doctors and nurses who are respondents in the study during immediately after seminar. The Hospital Medical Ethics Committee approved all surveys. A written and printed informed consent was therefore explained. In contrast, a printed copy was provided to each respondents that consented and availed themselves to participate in the survey. The signed informed consent was kept in safe custody for future reference, while the confidentiality policy of information use was duly followed. The procedure for quantitative data collection was self-administered questionnaires to doctors and nurses at the duty post and immediately after the morning briefing. The questionnaire was used to seek the opinion of the doctors and nurses in the hospital and their perspectives on the information needs of the patients. A correlation test of FISHER and a Chi-square test was used for data analysis to enable the researchers to describe the relationship between different modalities of respondents' bio-data and responses.

Results and Discussions of Findings

This section contains the analyses of the total number of respondents targeted for the probability cluster sampling technique using a semi-structured printed questionnaire. Forty-one respondents who consented and availed themselves of the study were recruited for quantitative data collection. These include 18 doctors and 23 nurses based on an 85% confidence interval (CI). The sample size calculation up to four confidence intervals (CI) was used based on the total number of participants. These medical personnel were recruited in the units providing treatment for HBV and HCV patients—the selection aligned with the estimated sample size's 85% confidence interval (CI).

In section A of the questionnaire, the researcher sought to determine the bio-data of the doctors and nurses who consented and availed themselves of filling out the questionnaire. The analysis shows that most nurses (N=23;56%) responded by completing the self-administered questionnaire. Other respondents were (N=18; 44 %) doctors. The "ggplot geometric" bars display a comprehensive repartition of the professional qualifications of respondents. However, gender distribution was disproportionate—eighteen female nurses (N=18; 78%) against five male nurses (N=5; 22%). There were more male doctors (N=11; 61%) than female doctors N=7; 39%). The distribution of the professional qualification (doctor and nurses) per work experience revealed that the dominant work experience groups for doctors and nurses were between 1-5 years and 6-10 years. Doctors and nurses with over ten years of work experience were not many. Doctors represented all work experience groups. Over 60% of doctors and nurses were between 20 and 39. The age distribution per qualification was nearly equitable, but doctors had one representation in the largest age group (60-80 years old. Figure 1 presents gender, work experience, and age group distribution per respondents' qualifications (Doctors and Nurses).

Figure 1: Doctors and Nurses' Gender, Work Experience, and Age Distribution



Research Question 1: ***What counselling program do healthcare professionals have for hepatitis B and C patients while receiving treatment at the Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa?***

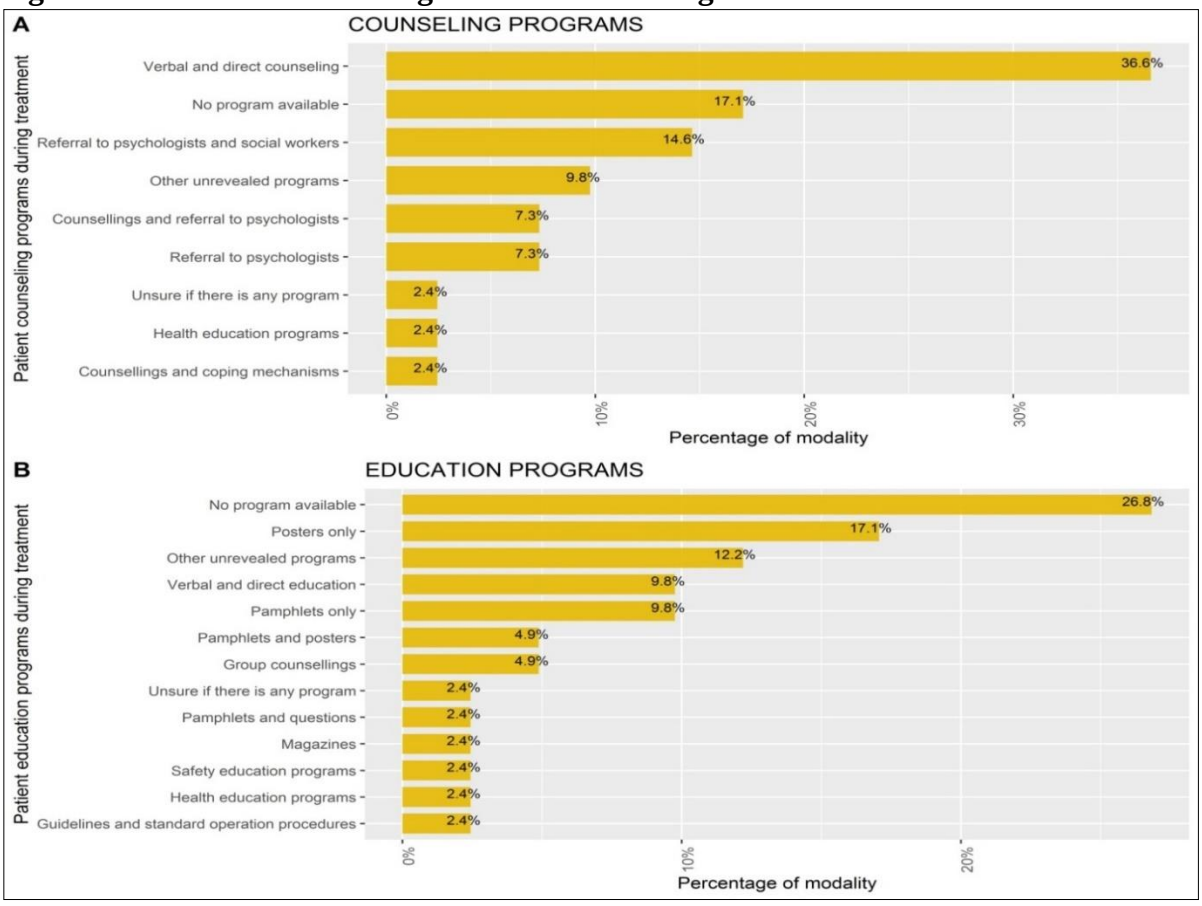
The researcher sought to establish counselling programs provided by healthcare professionals for patients receiving HBV and HCV therapy at Ngwelezane Hospital. The analysis shows that most (36.6%) of the doctors and nurses agreed that patients were counselled using verbal and direct methods of counselling while receiving treatment in the hospital, followed by respondents who admitted that no formal counselling programmes are available (17.1%), some respondents indicated that patients were referred to psychologists and social workers for counselling (14.6%);. In comparison, about 9.8% have yet to respond. Few respondents indicated that patients were counselled and at the same time referred to psychologists (7.3%); on the other hand, some patients (7.3%) were directly referred to visit psychologists. Meanwhile, few respondents indicated that they were unsure of counselling programs (2.4%), health education programs, counselling and coping mechanisms. (2.4%). Findings indicated that most of the doctors and nurses counselled HBV and HCV patients using verbal and direct methods of counselling for patients while receiving treatment in the hospital, [fig. 2A].

Research Question 2: ***What education program do healthcare professionals have for hepatitis B and C patients while receiving treatment at the Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa?***

The researcher sought to ascertain the type of education programs that healthcare professionals have for HBV and HCV at Ngwelezane Hospital. Most respondents admitted that no education

programme was provided for patients in the hospital during visitation (n=11; 26.8%). On the one hand, 17.1% of the respondents agreed that posters were used for information dissemination to educate patients on HBV and HCV infections, followed by 12.2% who did not disclose any information. About 9.8% indicated that direct and verbal education methods were provided, while another 9.8% indicated that pamphlets were provided for educating the patients. In addition, other education programmes were mentioned, such as the use of pamphlets and posters (4.9%), group counselling (4.9%), pamphlets and question methods (2,4%), magazines (2.4%), safety education programs (2.4%), health education programs (2.4%), guidelines and standard operation procedures (2.4%). Figure 2 B illustrates the available education programmes for patients. Findings revealed that there was diverse opinion about type of education programs that healthcare providers have for hepatitis B and C patients while receiving treatment at the hospital. Most respondents admitted that no education programme was for patients in the hospital during visitation, while others admitted that posters, pamphlets, group counselling, magazines, safety education were provided for patients during hospital visitations.

Figure 2: Available Counselling and Education Programs Provided for Patients



Source: *Generated by the researcher from the data analysis document*.

Discussion of Findings

This study investigates the important role of healthcare providers in counselling and educating HBV and HCV patients at Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa. Based on research question one, this current study established that healthcare professionals have counselling programs for hepatitis B and C patients while receiving treatment at Ngwelezane Hospital. Findings revealed that most of the doctors and nurses counselled HBV and HCV patients using verbal and direct methods of counselling for patients during consultations and while receiving treatment in the hospital (36.6%) [Figure 2A]. Similar study by Yip (2020) revealed that direct methods of information provision is perceived as appropriate in medical consultations. The finding is relevant with the opinion of information behaviour scholars such as Buller-Taylor et al., (2018, p. 1095) who argued that counselling for patients is essential given that many have suffered from depression and anxiety because of the effects of the disease. The findings also relate with the submissions by WHO (2020), which indicated that counselling, when provided by medical experts during consultation, could play a crucial role in providing psychological and emotional relief and stability for patients with chronic disease. On the other hand, few respondents indicated that patients were counselled and at the same time referred to psychologists (7.3%). Some agreed that patients (7.3%) were directly referred to visit psychologists. Meanwhile, several respondents indicated that they were unsure of counselling programs (2.4%), while others indicated that health education programs, counselling as coping mechanisms (2.4%) were provided.

Based on research question two which sought to ascertain the education program that healthcare professionals have for hepatitis B and C patients receiving treatment at the Ngwelezane Tertiary Hospital, KwaZulu-Natal, South Africa. Findings revealed that there was diverse opinion about type of education programs that healthcare providers have for hepatitis B and C patients while receiving treatment at the hospital. Similar findings from a study by Lauvergeon et al., (2015) experienced a divergences opinion about diabetic patients' and healthcare professionals' opinions of care. The study findings were in favour of the development of a regional information provision programme focusing on patient's needs, and programme that would provide opportunity to improve information and to have access to comprehensive care, and to help the healthcare professionals develop a local network to improve information communication for patients care. Most respondents (n=11; 26.8%) admitted that no education programme was provided for patients in the hospital during visitation, while others admitted that there are educational programs provided through posters (17.1%), pamphlets (9.8%), direct and verbal education methods (9.8%), group counselling (4.9%), magazines (2.4%), safety education programs (2.4%), health education programs (2.4%), guidelines and standard operation procedures (2.4%) were provided for patients during their hospital visitations.

Despite the important role of education and counselling in managing patient health especially regarding the improvement in the quality of life of patients and individuals (Aelbrecht, et al., 2015), healthcare professionals at Ngwelezane tertiary hospital express diverse opinion about it. One might be tempted to ask about reasons for diverse opinion about available patients' education and counselling among healthcare professionals who are proficient in understanding the adeptness and the importance of utilising various technological tools and systems effectively for providing health information for their patients in a tertiary hospital like Ngwelezane Tertiary Hospital. Similar finding was recorded in a survey by Kustra-Mulder, et al., (2024) who investigated the healthcare professionals' views on factors influencing persistent somatic symptoms among patient

across countries, however, the study indicated that education is essential for improving patient outcomes, emphasizing that knowledge sharing about effective healthcare practices across countries can improve patient care. Education plays a strategic role in providing knowledge about hygiene, disease prevention, management, and possible eradication, especially HBV and HCV (Pascapurnama et al., 2018). The knowledge of HBV and HCV is vital because, through educational processes, knowledge is acquired to help create awareness. As an instrument for behavioural changes, education impacts healthcare practices and improves individual HBV and HCV patients (Haq *et al*., 2014). As noted by Penry Williams et al., (2019), clinician engagement with patients through information provision during hospital visitations can be more effective rather than organising programmes for patients during their visits to the clinic. This study revealed that educational resources, such as posters, pamphlets, group counselling, and magazines, can be used to provide information for patients during hospital visitations.

In an advanced country such as South Africa, many hospitals have the necessary healthcare facilities and information resources to provide information based on patients' needs. However, despite these attempts, there is a gap in counselling and health education based on specific patients' needs. This study has a theoretical and practical implication of providing solutions to patients in the area of needs related to counselling and educational needs of HBV and HCV patients, as well as improved patients understanding of their individual medical conditions, adherence to treatment plans provided by health professionals and improved health outcomes.

Conclusions

In conclusion, based on the study's objectives, this study agreed with the findings, given that educating patients about their specific ailments is essential. Regardless of the diverse opinion expressed about type of education programs by healthcare providers for hepatitis B and C patients while receiving treatment at the hospital, counselling and education is essential for improving patient health outcomes. This study also demonstrates that counselling could prepare patients psychologically to handle illness challenges they might encounter during the pain and healing. Even though the doctors and nurses provided counselling for patients during consultation and treatment, patients were equally referred to experts who can effectively provide solutions to patient’s psychological needs depending on the level of challenges faced by patients. The study also established that doctors' and nurses' methods of information dissemination included verbal and direct counselling. Along with the use of counselling, other media of information provisions such as posters, pamphlets, group counselling, and magazines are equally important direct ways of communication. Verbal and direct counselling provided for patients during consultation and treatment were to prepare them "socially and psychologically" to cope with treatment challenges. Based on the conclusion of this study, the researcher provided some critical recommendations to improve information communication strategies between the hospital, doctors, nurses or another team of caregivers.

Recommendations

This study recommended that:

- Doctors and nurses are to improve information disseminate and awareness through various sources either direct counselling, posters, pamphlets, group counselling, and magazines for patients visiting the hospital facilities.
- Implementation of the health information provision guidelines on hepatitis eradication programs, as recommended by WHO and the South African Department of Health, is crucial to supporting the creation of health-related educational, counselling, and social awareness programs.

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