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A descriptive study to assess the knowledge regarding side effects of chemotherapy among cancer patients at Keshlata Hospital, Bareilly

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Abstract

According to the National Cancer Institute, cancer encompasses a range of diseases originating in body cells, posing a severe and potentially life-threatening threat. Typically, cells divide orderly, but in cancer, this process falters, leading to the uncontrolled production of new cells forming tumors. A study aimed to evaluate cancer patients' awareness of chemotherapy side effects, utilizing a quantitative, pre-experimental design based on Modified King's conceptual framework.

Methods: The research design selected for the study was a descriptive study and sample comprised a total of 300 samples. A purposive sampling technique was adopted. The tool used for data collection was a Structured Questionnaire. The content validity of the tool and the structured teaching programme was evaluated by 7 experts, all from the Nursing field. The reliability of the tool was computed by using the Split half method by applying Karl Pearson's co-efficient of correlation and Spearman's Brown prophecy formula. The reliability co-efficient of knowledge and practice was r =1 and r =0.90 respectively, revealing that the tool was feasible for administration in the main study. The data gathered were analysed and interpreted using descriptive and inferential statistics.

Results: The socio-demographic profile of cancer patients revealed interesting patterns. Among the 300 patients, 38.7% were males, while 61.3% were females, indicating a female preponderance. A significant majority (85.7%) were married, with 6.0% unmarried and 8.3% single. Education-wise, 27.0% had primary education, 50.3% secondary, 12.3% higher secondary, 7.7% were graduates or above, and 2.7% had professional education. Occupationally, 41.4% were in heat-related fields, 13.3% in radiation, and 33.0% unrelated. The majority were associated with heat. Geographically, 50.7% were from rural areas, 49.3% from urban. 37.0% had a family history of cancer, while 63.0% did not. Recurrent infections were reported by 81.3%. The mean knowledge score was 14.74 ± 6.03. Notably, no statistical association was found between knowledge scores and demographic variables.

Conclusion: The overall knowledge scores about the side effects of chemotherapy were average.

Keywords: Chemotherapy, cancer patients, palliative care, knowledge regarding side effects of chemotherapy among cancer patients

Introduction

The National Cancer Institute defines cancer as a broad category encompassing numerous diseases originating in the body's cells, posing a significant and potentially life-threatening health concern. In normal circumstances, cells undergo controlled growth and division to meet the body's needs. However, cancer disrupts this orderly process, leading to continuous production of new cells and a lack of cell death. These surplus cells aggregate to form a growth or tumor. Various cancer therapies exist, each tailored to the type, location, grade of cancer, and the individual's health and preferences. Surgery stands as the primary method for treating most isolated solid cancers. In cases of localized cancer, surgery aims to remove the entire mass and associated lymph nodes. Radiation therapy utilizes focused radiation, often in conjunction with surgery or chemotherapy, depending on the cancer type. Palliative care, as outlined by Carroll Johnson Gorman (2004), adopts an approach focused on managing symptoms to alleviate physical, emotional, spiritual, and psycho-social distress experienced by individuals with cancer.

Aim

A study aimed to evaluate cancer patients' awareness of chemotherapy side effects, utilizing a quantitative, pre-experimental design based on Modified King's conceptual framework

Need of the study

Chemotherapy is a vital component in cancer treatment, yet its side effects can significantly impact the patients' quality of life. The study employs a descriptive approach, intending to provide a comprehensive overview of the current knowledge levels among the cancer patients at Keshlata Hospital. Through surveys, interviews, and possibly focus group discussions, the research seeks to identify gaps in

understanding and areas that require additional education and support.

By assessing the patients' knowledge regarding chemotherapy side effects, the study aims to contribute to improved patient care and outcomes. The findings may guide healthcare providers in tailoring patient education programs that address specific concerns and uncertainties. It could also pave the way for the development of targeted interventions to enhance patient awareness and coping mechanisms.

Ethical considerations, such as informed consent and confidentiality, will be diligently followed throughout the study. The results are anticipated to provide valuable insights into the information needs of cancer patients undergoing chemotherapy at Keshlata Hospital, ultimately supporting the hospital's commitment to patient-centered care.

In conclusion, this descriptive study is poised to shed light on the knowledge landscape regarding chemotherapy side effects among cancer patients in Bareilly. The outcomes may prove instrumental in refining healthcare practices, optimizing patient education, and ensuring a more informed and empowered patient community at Keshlata Hospital.

Research Methodology
The chosen research design for this study was a descriptive approach, aiming to provide a comprehensive overview of the subject under investigation. The sample size consisted of 300 participants, selected through purposive sampling to ensure a targeted and specific representation of the population. This method was chosen to meet the study's objectives effectively. To collect data, a Structured Questionnaire was employed as the primary tool. Its content validity, crucial for ensuring that the questionnaire effectively measured what it intended to measure, was assessed by a panel of 7 experts, all of whom were well-versed in the field of Nursing. Their input provided a solid foundation for the reliability and credibility of the tool. The reliability of the questionnaire was determined using the Split-half method, employing Karl Pearson's coefficient of correlation and Spearman's Brown prophecy formula. The resulting reliability coefficients for knowledge and practice were found to be r = 1 and r = 0.90, respectively. These high reliability coefficients indicated that the tool was not only consistent but also dependable for use in the main study, affirming its feasibility for data collection.

Following data collection, a combination of descriptive and inferential statistical methods was employed to analyze and interpret the gathered information. This comprehensive approach allowed for a nuanced understanding of the data, contributing to the overall robustness and validity of the study. The adoption of rigorous methodologies in both sampling and data analysis enhances the study's reliability, ensuring that the findings accurately reflect the characteristics and trends within the targeted population.

Results
In this study, demographic data revealed a higher percentage of female participants, comprising 61.3% of the total, indicating a pronounced female preponderance. Marriage was prevalent, with 85.7% of patients being wedded, while 6.0% were unmarried, and 8.3% were single. Education levels varied, with 50.3% having completed secondary education, 12.3% higher secondary education, 7.7% holding a graduate degree or above, and 2.7% possessing professional education. Occupationally, 41.4% were involved in fibers, 13.3% in radiation-related fields, and 33.0% were unrelated to these factors, with a majority associated with heat-related occupations. Geographically, 50.7% hailed from rural areas, contrasting with 49.3% from urban regions. Medical history showed 37.0% had a familial cancer history, while 63.0% did not. Recurrent infections were prevalent in 81.3% of cases, while 18.7% had no history of such infections. The study underscores significant demographic variations, emphasizing the need for tailored interventions based on these characteristics.

In the knowledge score 195 (65.0%) patients had obtained inadequate knowledge score, 91 (30.3%) patients had obtained moderate knowledge score and 14 (4.7%) patients had obtained adequate knowledge score. The computed chi square test for pre-test knowledge revealed that there was no statistical association for any demographic variables.

Discussion
The findings of this study shed light on notable demographic patterns among participants, with a prominent female majority (61.3%) and a substantial representation of married individuals (85.7%). Education levels exhibited diversity, but a significant proportion (50.3%) had completed only secondary education. Occupationally, a considerable number were engaged in fibers (41.4%) and radiation-related fields (13.3%), emphasizing potential occupational risk factors. Geographically, an almost equal distribution between rural and urban areas (50.7% and 49.3%, respectively) suggests a broad sample representation. Medical history data indicated a noteworthy familial cancer history (37.0%), underlining the potential genetic component in the studied condition. Recurrent infections were prevalent in a substantial majority (81.3%) of cases, contributing to the understanding of associated health factors. The knowledge assessment revealed that a significant portion of participants (65.0%) had inadequate knowledge scores, highlighting potential gaps in awareness and the need for targeted educational interventions. The absence of statistical associations between pre-test knowledge and demographic variables, as indicated by the chi-square test, suggests that knowledge levels are not significantly influenced by the demographic characteristics studied. These findings underscore the importance of tailored interventions to address specific demographic and knowledge gaps identified in the study, contributing valuable insights to the existing body of literature on the subject.

Table 1: Frequency and percentage distribution of knowledge scores of cancer

S. No	Level of knowledge	Frequency	Percentage
1	Inadequate (0-14)	195	65.0
2	Moderate (15-25)	91	30.3
3	Adequate (26-36)	14	4.7
4	Mean $\pm$ SD		14.74 ± 6.03
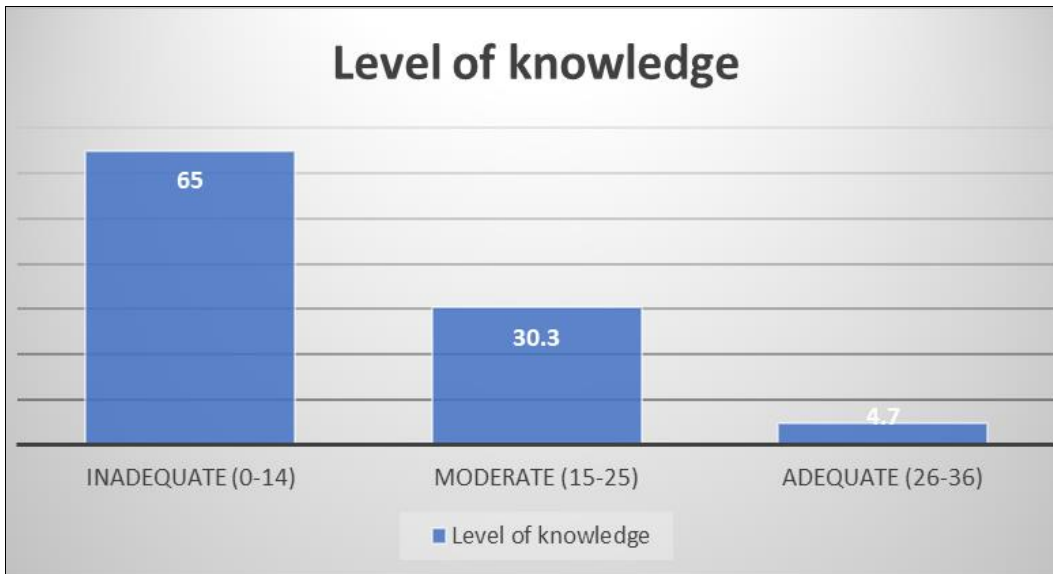
Fig 1: Frequency and percentage distribution of knowledge scores of cancer

Conclusion

In conclusion, this study unveils pertinent demographic insights into a cohort predominantly comprised of females, married individuals, and those with varying educational backgrounds and occupational exposures. The geographical distribution between rural and urban areas suggests a diverse sample, contributing to the generalizability of findings. The prevalence of familial cancer history and recurrent infections underscores potential factors influencing the studied condition. The knowledge assessment reveals a concerning inadequacy in understanding among a substantial proportion of participants, emphasizing the need for targeted educational initiatives. Interestingly, the lack of statistical associations between pre-test knowledge and demographic variables implies that knowledge gaps are not inherently linked to specific demographic characteristics. This challenges assumptions and directs attention towards broader educational strategies to improve awareness across diverse demographic groups.

The identified demographic variations underscore the importance of personalized interventions, recognizing the unique needs of specific subgroups within the studied population. These findings contribute valuable insights to existing literature, emphasizing the multifaceted nature of factors influencing health outcomes. Moving forward, tailored interventions addressing demographic-specific knowledge gaps are imperative to enhance overall awareness and facilitate more effective prevention and management strategies for the studied condition.

Conflict of Interest

Not available

Financial Support

Not available

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