REVISTA DE ENFERMAGEM REFERÊNCIA
homepage: https://rr.esenfc.pt/rr/
ISSNe: 2182.2883

RESEARCH ARTICLE (ORIGINAL)

Quality of life of prostate cancer patients: A nursing care model

Qualidade de vida das pessoas com cancro da próstata: Um modelo de cuidados de enfermagem

Calidad de vida de los pacientes con patología oncológica prostática: Un modelo de cuidados de enfermería

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Abstract

Background: Cancer constitutes a dramatic life experience, disrupting homeostasis. With population aging and prolonged survival in cancer patients, it is essential to increase their quality of life.
Objective: To develop and implement a nursing follow-up model focused on the vulnerabilities of patients with prostate cancer in order to improve their quality of life.
Methodology: A pilot study was conducted on six patients with prostate cancer. Data were collected through the application of the QLQ-INFO25
and HADS and interviews in the outpatient consultation of a private hospital.
Results: Changes in the dimensions of health-related quality of life. Implementing the follow-up model revealed that "health education, self-confidence, and attitude" are essential aspects of the nurses' work with these patients. Working on patients' vulnerabilities improved their quality of life.
Conclusion: The model benefits health promotion, well-being, complication prevention, and increased satisfaction. The team's individualized work improves these patients' quality of life.

Keywords: quality of life; prostatic neoplasms; nursing; health promotion; patient satisfaction

Resumo

Enquadramento: O cancro representa uma experiência dramática na vida de qualquer pessoa, perturbando a sua homeostasia. Dado o envelhecimento da população e a sobrevivência mais prolongada destes doentes, é essencial melhorar a sua qualidade de vida.
Objetivo: Desenvolver e implementar um modelo de acompanhamento em enfermagem centrado nas vulnerabilidades dos doentes com cancro da próstata, a fim de melhorar a sua qualidade de vida.
Metodologia: Estudo piloto realizado através da aplicação das escalas QLQ-INFO25 e HADS e de uma entrevista, na consulta de ambulatório de um hospital privado, a seis doentes com cancro da próstata.
Resultados: Alterações nas dimensões da qualidade de vida relacionada com a saúde. A implementação do modelo de acompanhamento permitiu concluir que "educação em saúde, autoconfiança e atitude" são aspetos essenciais no trabalho dos enfermeiros com estes doentes. O trabalho direcionado às vulnerabilidades dos doentes melhorou a sua qualidade de vida.
Conclusão: O modelo contribui para a promoção da saúde e do bem-estar, prevenção de complicações e aumento da satisfação. O trabalho individualizado da equipa melhora a qualidade de vida destes doentes.

Palavras-chave: qualidade de vida; neoplasias da próstata; enfermagem; promoção da saúde; satisfação do doente

Resumen

Marco contextual: La enfermedad oncológica representa una experiencia dramática en la vida de cualquier persona, ya que altera la homeostasis. Dado el envejecimiento de la población y la supervivencia más prolongada de estos pacientes, es esencial aumentar su calidad de vida.
Objetivo: Desarrollar e implantar un modelo de seguimiento de enfermería centrado en las vulnerabilidades de los pacientes con enfermedad oncológica prostática para mejorar su calidad de vida.
Metodología: Se llevó a cabo un estudio piloto en el que se aplicaron las escalas QLQ-INFO25 y HADS, y una entrevista en la consulta externa de un hospital privado a seis pacientes con cáncer de próstata.
Resultados: Cambios en las dimensiones de la calidad de vida relacionada con la salud. La implementación del modelo de seguimiento nos permitió concluir que "la educación sanitaria, la autoconfianza y la actitud" son aspectos esenciales del trabajo de los enfermeros con estos pacientes. Trabajar sobre las vulnerabilidades de los pacientes mejoró su calidad de vida.
Conclusión: El modelo beneficia la promoción de la salud, el bienestar, la prevención de complicaciones y el aumento de la satisfacción. El trabajo individualizado del equipo mejora la calidad de vida de estos pacientes.

Palabras clave: calidad de vida; neoplasias de la próstata; enfermeira; promoción de la salud; satisfaccion del paciente

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Received: 29.06.22
Accepted: 03.05.23

How to cite this article: Teixeira, J. M., Prata, A. P., & Couto, G. R. (2023). Quality of life of prostate cancer patients: A nursing care model. *Revista de Enfermagem Referência*, *6*(2), e22086. https://doi.org/10.12707/RVI22086

Introduction

Cancer affects a significant percentage of the population, and its incidence has increased in recent years. Forecasts for Portugal pointed to an incidence of 50,000 cases in 2020 (Direção-Geral da Saúde, 2016). Among these, an estimated 6,759 new cases of prostate cancer emerged in Portugal in 2020 (Liga Portuguesa Contra o Cancro, 2021). Although the number of cancer survivors has been increasing in recent years due to multiple factors, such as earlier diagnosis and more effective therapeutic interventions, cancer is associated with a fatal outcome and intense psychological suffering for the patientand their families (Cardoso et al., 2009).

With population aging, whiletrying to guarantee a more prolonged survival for these patients, what matters is to increase their quality of life (QoL). According to Rizzo and Spitz (2002), QoL is a broad concept with numerous definitions and comprises life habits, lifestyles, and health indices. It is the product of several psychological, health-related, social, environmental, economic, and political factors.

Thus, it is essential to develop and implement a nursing care model focused on the prostate cancer patients' vulnerabilities to improve their QoL.

Background

Cancer is a dramatic experience in any person's life that disturbes homeostasis and requires role changes, redistribution, or addition and the reorganization of family dynamics to incorporate the patient's care and treatment into daily routines (Cardoso et al., 2009). The impact of diagnosis, disease confirmation, and treatment is associated with physical, functional, and psychological limitations that significantly reduce patients' QoL (Machado & Sawada, 2008).

As life changes from a state of health to a state of disease, the meaning of life, relationships with others, and activities of daily living change. From the moment of diagnosis, the patient faces a set of mechanisms and tasks to adapt to the disease and its circumstances. Transition is a central concept and a phenomenon of concern to nursing when, according to Meleis and Trangenstein (2010, p. 66 as cited in Meleis, 2010), "clients, families, communities, nurses, and organizations [experience transition], with health and well-being as a goal and an outcome". The cancer transition process begins at the moment of diagnosis, and its turning point is the surgery or the beginning of non-surgical treatments (Carvalho & Cristão, 2012). For the transition to occur, the person must become aware of the need for change. Awareness involves one's recognition in oneself and of the changes disrupting one's homeostasis (Mota, 2018). For this process to occur, the patient must become involved, aware, and accept their new condition, and the nursing team has a vital role in this process. Each patient and their transition experience is unique, so the transactional care provided is also unique. Patients who opted for active surveillance in this transition showed lower anxiety and fear of progression, whereas the health-related QoL (HRQoL) was maintained (Kato & Sugimoto, 2020).

Nursing, as a discipline, ensures the need to understand, study, and investigate the person as a whole, considering their biological, psychological, social, and cultural dimensions in an integrated and interactive way. Therefore, it is up to nurses to assist the individual/family in coping/adapting to their new condition. Considering that nursing focuses on individuals' responses to illness and life processes, Meleis (2007, p. 30) considers that "transition is a concept central to Nursing" and, together with her colleagues, developed a middle-range theory. This study assessed the HRQoL in prostate cancer patients, following the need to develop and implement a nursing follow-up model focused on patients' vulnerabilities to improve their QoL, which is an individual's perception of their position in life, in the cultural context and value systems in which they live, related to their goals, expectations, standards, and concerns. It is a broad concept of classification deeply influenced by the individual's physical health, psychological state, social relationships, level of independence, and relationships with the most relevant characteristics of their environment (WHOQOL Group, 1993). Improving their QoL by decreasing illness uncertainty and reducing avoidance coping strategies is essential for these patients (Guan et al., 2020).

This study becomes fundamental and groundbreaking as there are, to date, no nursing follow-up models for these patients.

Research question

Does a nursing follow-up model meet the needs of prostate cancer patients in health-related quality of life?

Methodology

The nursing follow-up model was developed based on the results of the previous assessment, in an earlier study, of the HRQoL through the EORTC QLQ-C30, QLQ-PR25 scales that encompass several dimensions (pain, fatigue, nausea and vomiting, insomnia, decreased appetite, constipation and diarrhea, sexual activity, urinary symptoms, emotional function, and social function). These dimensions, when affected, alter the QoL and interfere with the transition process. One of the vulnerabilities detected in the first study was the emotional function. Thus, the HADS scalewas used in this study to assess the participants' level of anxiety and depression since the literature indicates that anxiety and depression are present in cancer disease (Carvalho & Cristão, 2012). The follow-up model prioritized previously identified problems and included nursing care focused on surgical patients. Nursing interventions were defined based on the identified foci, considering the different moments of contact with the patient and family. Patients were monitored throughout the follow-up visits, and the recommended interventions were performed.

Once the prostate cancer patients' vulnerabilities are known, the nurse case manager starts working with patients, applying the proposed model. Implementing the nursing follow-up model aims at its constant re-evaluation and defining outcome indicators. This evaluation was carried out through interviews.

A pilot study was conducted to evaluate the model's effectiveness. The adequacy of the planned methods and procedures were assessed and potential confounding variables were identified that were not previously known, as defended by Polit and Beck (2017). The Portuguese versions of the Quality-of-Life Questionnaire-Information Module 25 (QLQ INFO25; Marques, 2010) and Hospital Anxiety and Depression Scale (HADS; Pais-Ribeiro et al., 2007) were applied, and an unstructured interview was carried out. Subsequently, content analysis was performed.

In order to identify changes in QoL, and according to the times recommended by the hospital institution for medical patient follow-up, the nursing follow-up model was divided into four moments: immediatly after implementation (M0), 1 (M1), 3 (M3), and 6 months (M4) after the diagnosis, which correspond to the follow-up visits recommended by the institution. Patients were monitored throughout their health/disease transition process. The International Classification for Nursing Practice (ICNP) was used to make the language universal and transversal to any institution. In the prior consultation, an interview was conducted with the patients.

Data from the interviews were analyzed based on the methodological assumptions of content analysis.

The nursing follow-up model was implemented in the urology outpatient consultation of a private hospital in northern Portugal, which received six prostate cancer patients from January to July 2019.

In order to comply with all ethical guidelines for research work, permission to conduct this study was requested from the Board of Directors and Ethics Committee of a private hospital, which issued a favorable opinion (number 42/A of 2018).

The authors of all instruments authorized their use at this stage of the studyGiven that participation was voluntary, participants signed a free and informed consent form and could withdraw from the study anytime, which never occurred. They were explained about the purpose of the study and provided with an information sheet. Patients were also informed that the researcher would leave at the end of the three-month follow-up. At this stage of the study, it was impossible to guarantee anonymity due to the need to articulate with the different members of the multidisciplinary team in order to guarantee the quality of care. Therefore, we invoke the principle of double effect, which determines that actions are allowed that that result in a good (intended) effect, the quality of care, and an bad (tolerated) effect, the non-guarantee of anonymity (Brueck & Sulmasy, 2020).

It should be noted that the principal investigator acted as a nurse in the study context. Hence, the duty of confidentiality is inherent to the nurses' professional practice. However, sharing information with the professionals involved in the care of the person and family is also crucial to improving the quality and continuity of care.

The sample was composed of six patients who attended the medical consultation of a private hospital in northern Portugal from January to July 2019. Data saturation was obtained, and the collection was interrupted at this point. The inclusion criteria for participants in this study were: patients over 18 years with prostate cancer who agreed to participate in the study. Patients who could not read or write and presented neurological and cognitive alterations that prevented them from completing the questionnaires were excluded.

IBM SPSS Statistics software, version 25.0 for Windows, was used for quantitative analysis. The statistical analysis involved descriptive statistics (absolute and relative frequencies, means, and standard deviations) and inferential statistics. The significance level was set at Cronbach's alpha ≤ 0.05. The repeated measures ANOVA test was used to test the evolution of values in the four moments of assessment. Pearson's correlation coefficient, Cronbach's alpha coefficient, and exploratory factorial analysis were also used. Pearson's correlation coefficient, One-Way ANOVA test, and Student's *t*-test for independent samples were used to test the differences in evolution according to age, education, and type of treatment. The normal distribution was analyzed with the Shapiro-Wilk test, and the homogeneity of variance with Levene's test.

For the evaluation of the nursing follow-up model, the unstructured interview was used, with the starting question: "Between the diagnosis of your disease and three months after the initial treatment, what aspects did you consider essential for the nurse to work with you?" The interviews were conducted during the nursing appointment, three months after surgery (M4). The interview was conducted at this moment because it was the last post-surgical follow-up nursing consultation and because the previously identified vulnerabilities had already been addressed. Participants were expected to be able to answer the question. The researcher conducted the interviews, each lasting approximately 20 minutes. The information from the six interviews was recorded, transcribed, and organized in a table, according to Bardin's methodology (2008), to facilitate reading.

All prostate cancer patients that were monitored in that time period in the hospital were included for bias control, so there was no selection. Regarding the completion of the instruments, the researchers always provided the patients wirh clarification about the concepts, thus reducing the risk of subjectivity in their interpretation.

This study is fundamental for nursing practice it aims to identify prostate cancer patients' vulnerabilities and to monitor them in their illness process, providing better transactional care and, consequently, a better QoL while allowing nursing teams to provide patient-centered care, and health institutions to reduce costs by avoiding recurrent patient visits to their services.

Results

A script was designed to facilitate the follow-up of each patient. Each script moment corresponds to the nursing consultations and is accompanied by a table where the diagnostic/surveillance activities and nursing interventions are identified.

At M0, patients' anxiety levels and knowledge about the disease were assessed. Concerning the results obtained through the HADS scale, depression scores ranging from 9-13 were obtained, with a mean of 1.2 (*SD* = 1.6). In the anxiety scale, the values ranged from 15-19, with a mean of 16.8 (*SD* = 1.2).

Regarding the QLQ-INFO25 instrument, we found that patients consider they receive quite a bit information about the diagnosis (*M* = 3.66). Regarding the extent of the disease (*M* = 2.66), the information obtained varies between a little and quite a bit, being, on average, quite a bit. A similar situation is verified concerning the information about the possible causes of the disease (*M* = 2.83). Regarding disease control (*M* = 1,16), the participants refer that no or only some information is given, being the average situation that there is no information at all. Regarding the medical tests (*M* = 2.50), the information about their purpose is a little or quite a bit, with the average being quite a bit. As for the procedures of the medical tests (*M* = 2,50), the opinions diverge between a little, quite a bit, or very much information. However, we found that, on average, the information provided is quite a bit.

The information provided is quite a bit about the results of the medical tests already received (*M* = 2.50), although some mention only a little. Regarding treatments (*M* = 2.83), the information about their expected benefit is, on average, a little; some patients reported that this type of information does not exist. Regarding the possible side effects of the treatment (*M* = 1.66), patients reported only a little, although some individuals said that they have had very much information. As for the expected effects of treatment on disease symptoms (*M* = 2.33), the participants considered that they have received a little information. Information about the effects of treatment on social and family life (*M* = 2.83) is quite a bit, given the mean value, and opinions are divergent on this point. However, information about the effects of treatments on sexual activity is only a little.

Within the other services, we conclude that information about additional help outside the hospital (*M* = 3.50) is quite a bit, although some individuals report it is very much. As for the rehabilitation services (*M* = 2.00), the information is only a little, considering the average obtained, with all the individuals answering the same. The same occurs with information about disease management at home (*M* = 1.66), although some individuals say there is no such information. The information about the possibility of psychological support (*M* = 3.16) is very much, and in some cases, individuals report that it is a quite a bit. On the other hand, information about the different places of care (*M* = 3.00) is very much on average, although there is a divergence of opinions.

The information about self-help (*M* = 2.33) is only a little in average terms. hey were, on average, very much satisfied with the amount of information received (*M* = 2.33) , although some were little satisfied. Overall, the information received, on average, has been very helpful (*M* = 3.33).

The most significant amount of information given is regarding the diagnosis of the disease. In addition, there is also a high level of information regarding additional help outside the hospital. On the other hand, little information is provided whether the disease is under control, and aspects related to home care have the lowest mean values.

The final score calculation considered only the answers given by the individuals along the different dimensions of the Likert scale. Considering the nature of the qualitative questions in the EORTC QLQ - INFO25, these were not included. The final score ranged from 42 to 49 (*M* = 44.67; *SD* = 2.80), revealing that the patient perceived the information received was little.

In the first consultation, and after identifying anxiety and lack of knowledge about the disease as vulnerabilities, we provided essential information to patients on anxiety self-control and management strategies at home. Throughout the consultations, the nurse worked with the patients on the vulnerabilities identified and other areas characteristic of the surgical patient.

In the last follow-up consultation (three months after surgery), and in order to assess the applicability of the follow-up model from the patient's perspective, an unstructured interview was conducted with the study participants to assess whether the interventions developed since the first contact had an impact on improving the QoL. The interview question asked patients to list the aspects they considered relevant for nurses to understand whether the follow-up model was adapted to reality, thus reducing the vulnerabilities identified in the first study.

The information analysis on the essential aspects of the nurse's work was as follows. Table 1 summarizes the analysis of the answers given by patients. The table is divided into categories and recording units. These categories aimed to understand the concept understood by prostate cancer patients. For each category, recording units were identified.

Table 1

Aspects valued by patients as essential to nurses' work

Categories	Recording Unit (RU)
Health Education	Teaching/Training
	Incentive/Encouragement
	Information
	Awareness
	Counseling
Self-confidence	Recognition
	Presence
Attitude	Coping
	Adaptation
	Acceptance of health status
	Disease self-management

Discussion

The disease is a painful and uncomfortable experience as it can affect all dimensions of personal life, from individual to social aspects (Silva, 2015).

The way each patient goes through the transition process may dictate the success of their recovery, so developing a follow-up model for prostate cancer patients with is essential for a healthy transition process. The answers revealed that the nurse's intervention contributed to a healthy transition process. The nurse case manager should analyze prostate cancer patients' vulnerabilities that affect their QoL and define interventions to minimize these vulnerabilities to improve QoL.

Throughout the follow-up process, it is necessary to evaluate the patient's progress and the effectiveness of our intervention in order to reformulate the care plan if necessary. To this end, indicators have been created that allow for better and more efficient monitoring. Indicators are measures that can be used to monitor, evaluate, and promote quality of care (Pereira, 2009).

The following outcome indicators were used: perceived improved QoL, better awareness of the disease, better knowledge about surgery and postoperative period, anxiety self-control, better management of the therapeutic regime, effective self-care, effective urinary catheter care regime, effective adaptation, non-compromised sleep pattern; current comfort, current self-esteem; patient satisfaction.

According to Pereira (2009), outcome indicators translate the nursing-sensitive gains and "seek to measure demonstrations of the effects of the combination of surrounding factors, structure, and processes in the individual's conditions" (p. 75). It should be noted that implementing the nursing follow-up model requires the teams' full availability, and the time spent may become an ally in the implementation fraction of the case management models. As mentioned by Mota (2018, p. 232), "the nurse's attitude should aim at anticipating the difficulties experienced by the patient, demonstrating availability in implementing the model". Still, according to the same author, time is significant when conducting the study, but "the time for follow-up depends on the patient's availability and the nurse's availability that the health system allows". The availability of follow-up patients has to be total, and the time required to apply this model can become a hindrance. Time has become a vital to the success of this follow-up model. However, it should be noted that the entire screening, intervention, and continuous assessment plan will have a significant impact on long-term results, namely in terms of improved QoL, closer relationship between the patient/family and the professional responsible (care manager), promotion of humanized actions, and guarantee of the unity of the services provided (Kato & Sugimoto, 2020).

Several studies demonstrate the importance of case management. Freire (2013) states that case management is an added value in vulnerable people, provides health gains, and promotes health care quality. Mota (2018) argues that the follow-up model will impact mortality and morbidity rates and healthcare costs. Asencio et al. (2008) refer that case management avoids potential problems by adopting preventive measures, avoids unnecessary use of emergency services and other health services, reduces adverse effects, increases the patient and family autonomy, and increases contact with patients and families. Still, the author mentions that the nurse case manager is the best response to the needs of the people who use that service. The literature reinforces the results of this study to the extent that its implementation impacted the QoL of the patients to whom this model was applied, as can easily be seen by the interviews.

With the implementation of the monitoring model that takes into account the prostate cancer patients' vulnerabilities (a pattern evidenced in the study validation of HRQoL), it is possible to monitor, involve, educate, and intervene efficiently in these patients, together with all elements of the multidisciplinary team, in order to provide a better QoL. Since prostate cancer and its incidence is a current problem, we believe that applying this model in institutions will benefit patients because it provides better transitional care to health professionals. After all, they direct their interventions to patients' real problems for a better care practice and to institutions, which, in addition to having patients more satisfied with the care provided and with a better QoL, will see their costs reduced.

Verifying their vulnerabilities, with the subsequent application of the follow-up model, may allow obtaining results whose value in health, a paradigm currently on the rise, may be a reality. According to Porter (2014), value in health is defined as the relationship between the results that matter to patients (clinical outcomes) and the cost of achieving those results. Improving the QoL of patients with prostatic oncology disease by implementing the nursing follow-up model contributes to creating health value. A monitoring model allows for creating a standard of action and guiding nursing professionals to a more sustained practice, working with patients with prostatic oncology disease, the already known vulnerabilities, and anticipating the possible effects of this disease.

This model will give greater visibility to the nursing profession as it highlights the daily work of nursing teams for the patients' healthy transition, as well as allowing nurses to improve communication, autonomy, teamwork, and shared management, strengthening the obligation to the organization and the profession. With the individualized work of the nursing team, it is possible to provide an improved QoL for these patients. Improving patients' QoL makes them socially active more quickly.

This study has some limitations, namely the size of the sample. In fact, a larger sample would allow obtaining more marked answers in some QoL domains. On the other hand, data collection proved to be complex due to the length of the questionnaires and the dynamics of the institutions, which led to the loss of some patients who could participate.

The results of this study provide new evidence on the HRQoL of prostate cancer patients. They suggest the importance of implementing HRQoL assessment as a routine to identify these patients' vulnerabilities for patient-centered clinical practice.

Conclusion

The results of this study provide new evidence on the HRQoL of prostate cancer patients. They suggest the importance of implementing HRQoL assessment as a routine to identify these patients' vulnerabilities to guide patient-centered clinical practice. An intervention targeted to the most affected domains may contribute to continuously improving the patients' QoL. This study aimed to develop a follow-up care model for prostate cancer patients. The methodology allowed for identifying factors that would be difficult to achieve through other longitudinal data collection strategies that monitor the HRQoL of these patients. The nursing follow-up model was based on the vulnerabilities of prostate cancer patients identified in the first study. Pain, emotional function, social function, fatigue, nausea and vomiting, sleep disturbance, decreased appetite, constipation and diarrhea, financial impact, sexual activity, and urinary symptoms were the identified vulnerabilities.

Once the applicability of this nursing follow-up model to these patients has been demonstrated, we propose to continue this study by testing its applicability in other healthcare institutions. On the other hand, the reproducibility of this model in other contexts may be an educational tool for other nurses, strengthening research as a dynamic of the nursing discipline and the foundations of the profession itself.

Author contributions

Conceptualization: Teixeira, J. M., Prata, A. P., Couto, G. R.
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References

Asencio, J., Jiménez, G., Santos, F., Herrera, J., Mañas, M., Carrasco, A., et al. (2008). Effectiveness of a nurse-led case management home care model in Primary Health Care: a quasi-experimental, controlled, multi-centre study. *BMC Health Serv Res, 8*:1-13.

Bardin, L. (2008). *Análise de conteúdo*. Edições 70.

Brueck, M., & Sulmasy, D. (2020). *The rule of double effect: a tool for moral deliberation in practice and policy*. Health Policy & Law, Center for Bioethics Harvard Medical School. https://bioethics.hms.harvard.edu/journal/rule-double-effect

Cardoso, G., Luengo, A., Trancas, B., Vieira, C., & Reis, D. (2009). Aspetos Psicológicos do Doente Oncológico. *Revista do Serviço de Psiquiatria do Hospital Prof. Doutor Fernando Fonseca, EPE, 7*(1&2):9-18. https://doi.org/10.25752/psi.4007

Carvalho, J., & Cristão, A. (2012). O valor dos cuidados de enfermagem: a consulta de enfermagem no homem submetido a prostatectomia radical. *Revista de Enfermagem Referência*, 7, III Série:103-112.

Direção-Geral da Saúde. (2016). *A Saúde dos Portugueses 2016*, 96–107. http://pns.dgs.pt/files/2016/09/AnexoIIId_A-Saúde-dos-Portugueses-2016.pdf

Freire, C. (2013). *A prática da gestão de caso na unidade de cuidados na comunidade*. Relatório de Trabalho de Projeto apresentado para a obtenção do Grau de Mestre na Especialidade de Enfermagem Comunitária. Escola Superior de Saúde de Santarém, pp. 67.

Guan, T., Santacroce, S., Chen, D-G., Song, L. (2020). Illness uncertainty, coping, and quality of life among patients with prostate cancer. *Psycho-Oncology, 29*:1019–1025. https://doi.org/10.1002/pon.5372

Kato, T. & Sugimoto, M. (2020). Quality of life in active surveillance for early prostate cancer. *International Journal of Urology, 27*(4):298-306. https://doi.org/10.1111/iju.14202

Liga Portuguesa Contra o Cancro (2021). *Novembro azul: mês de prevenção do cancro da próstata*. https://www.ligacontracancro.pt/novembroazul/

Machado, S., & Sawada, N. (2008). Evaluation Quality of Life in Oncology Patients Submitted To Adjuvant. *Texto e Contexto Enfermagem, 17*(4):750-757.

Marques, M. A. (2010). *Informação ao doente oncológico. Validação da versão Portuguesa do questionário EORTC QLQ-INFO26.* (Master's Dissertation). Faculdade de Medicina da Universidade de Lisboa. Lisboa. Portugal.

Meleis, A. (2007). *Theoretical nursing development & progress*. 5a ed. Wolters Kluwer Health Lippincott Williams & Wilkins.

Meleis, A. (2010). *Transitions theory*. Springer Publishing Company.

Mota, L. (2018). *A Pessoa submetida a transplante hepático: um modelo de acompanhamento de enfermagem*. Dissertação de candidatura ao grau de Doutor em Ciências de Enfermagem, Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto, pp. 335.

Pais-Ribeiro, J., Silva, I., Ferreira, T., Martins, A., Meneses, R., & Baltar, M. (2007). *Validation study of a Portuguese version of the hospital anxiety and depression scale*. Psychology, Health and Medicine, 12(2):225–237.

Pereira, F. (2009). *Informação e qualidade do exercício profissional dos enfermeiros*. Doctoral thesis in Nursing Sciences, Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto, pp. 430.

Polit, D. F., & Beck, C. T. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10th ed.). Wolters Kluwer/Lippincott Williams & Wilkins.

Porter, M. (2014). *Value-based health care delivery creating. Institute for Strategy & Competitiveness*. https://www.isc.hbs.edu/health-care/value-based-health-care/Pages/default.aspx

Rizzo, L., & Spitz, E. (2002). *Qualité de vie, santé et maladie*. In Gustave-Nicolas Fischer, Traité de psycologie de la santé. pp. 283–299. Paris: DUNOD.

Silva, J., Valente, R., & Sousa, P. (2015). Estrategias de autocuidado das pessoas com doença oncológica submetidas a quimioterapia/radioterapia e a sua relação com o conforto. *Enfermería Global, 37*:384-400.

WHOQOL Group. (1993). Study protocol for the World Health Organization project to develop a quality of Life assessment instrument (WHOQOL). *Quality of Life Research, 2*(2):153–159. https://doi.org/10.1007/BF00435734