Coping and adaptation of adults with cancer: the art of nursing care*

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**Subject:** Chronic care.

**Contribution to the subject:** Applying a nursing theory enables a better understanding of the human experiences that are lived in the process of coping and adaptation to cancer, identifying which strategies favor and undermine the new situation that patients are going through. It is a priority for nursing as a whole to strengthen coping and adaptation, through knowledge that guides a comprehensive approach and quality care to patients.
Abstract

Objective: To determine the coping and adaptive capabilities in patients with cancer undergoing treatment. Methodology: This was a quantitative and descriptive cross-sectional study; the sample consisted of 100 patients with a cancer diagnosis who received chemotherapy and/or radiotherapy treatment between June and August 2019, meeting the inclusion criteria. The Coping and Adaptation Processing Scale (CAPS) was used. Results: 53% of the patients participating in the study presented high coping and adaptive capabilities; 40% presented medium capabilities, and 7% presented low capabilities. Conclusion: Continuous follow-up is extremely important throughout the disease process; having a romantic partner becomes a protective factor since patients feel heard and cared for, which motivates them to follow through with the treatment. In the nursing field, knowing the experience of those who live with an illness allows for transcending and impacting care by providing holistic attention to patients.

Keywords (Source: MeSH, DeCS)
Nursing; caregivers; cancer; neoplasms; chemotherapy; radiotherapy.
Resumen

Objetivo: Determinar la capacidad de afrontamiento y adaptación en personas con cáncer en tratamiento. Metodología: estudio cuantitativo y descriptivo de corte transversal; la muestra fue conformada por 100 pacientes con diagnóstico de cáncer que asistieron a tratamiento de quimioterapia y/o radioterapia entre junio y agosto del 2019, cumpliendo los criterios de inclusión. Se utilizó la Escala de Medición del Proceso de Afrontamiento y Adaptación (ESCAPS). Resultados: 53% de los pacientes estudiados poseen una capacidad de afrontamiento y adaptación alta; 40% obtuvo capacidad media y 7% una capacidad baja. Conclusión: el acompañamiento continuo es de gran importancia en todo el proceso de la enfermedad; tener una pareja sentimental se convierte en un factor protector pues los pacientes se sienten escuchados y atendidos, lo cual los motiva a continuar con el tratamiento. En el área de enfermería, conocer la experiencia de quienes viven una enfermedad permite trascender e impactar el cuidado brindando una atención holística.

Palabras clave (Fuente: MeSH, DeCS)
Enfermería; cuidadores; cáncer; neoplasias; quimioterapia; radioterapia.
Resumo

Objetivo: determinar a capacidade de enfrentamento e adaptação em pessoas com câncer em tratamento. Materiais e método: estudo quantitativo e descritivo, de corte transversal; a amostra foi conformada de 100 pacientes com diagnóstico de câncer que passaram por tratamento de quimioterapia e/ou radioterapia entre junho e agosto de 2019, cumprindo com os critérios de inclusão. Foi utilizada a Escala de Medicação do Processo de Enfrentamento e Adaptação. Resultados: 53 % dos pacientes estudados apresentaram capacidade de enfrentamento e adaptação alta; 40 % obtiveram capacidade média e 7 %, capacidade baixa. Conclusões: o acompanhamento contínuo é de grande importância em todo o processo da doença; ter um parceiro(a) sentimental se torna um fator protetor, pois os pacientes se sentem escutados e atendidos, o que os motiva a continuar com o tratamento. Na área de enfermagem, conhecer a experiência de quem vive uma doença permite transcender e impactar o cuidado, oferecendo uma atenção holística.

Palavras-Chave (Fonte: MeSH, DeCS)
Enfermagem; cuidadores; câncer; neoplasias; quimioterapia; radioterapia.
Introduction

Cancer is a disease that causes more than eight million deaths each year worldwide (1) and causes the largest number of premature deaths (2). In America, it is the second leading cause of death; during 2018, 3.8 million cases were diagnosed, and 1.4 million people aged 69 years or under died from cancer (3).

The diagnosis of cancer has a significant impact on biological, psychological, physical, and social aspects. It involves multiple challenges and, therefore, the experience of having cancer is highly distressing since it forces individuals to deal with affliction, deterioration, death, transcendence, concepts for each of which they must seek a personal meaning. It is at that moment where coping becomes the main intermediary mechanism in the presence of crisis or in difficult situations involving stress; it is recognized that the behaviors used as coping strategies can promote adaptation (4).

Callista Roy defines coping capability as the innate or acquired ability to generate a response, using new strategies to adapt effectively to challenging changes (5). Cancer leads patients to face various changes in their lives which generate negative feelings and emotions in those who suffer from it and in their families; likewise, if effective coping strategies are used, the psychosocial effects produced by this disease can be mitigated (6). The nursing field needs to know how to promote health for its patients, but also how to help them cope with the changing episodes and challenges posed by their disease (7).

Consequently, the present research aims to determine the coping and adaptive capabilities of patients undergoing cancer treatment.

Methodology

This was a quantitative and descriptive cross-sectional study whose population consisted of users who received chemotherapy and/or radiotherapy treatment between June and August 2019 in a cancer unit. A total of 100 users with a diagnosis of cancer participated, who were chosen non-probabilistically and by convenience, and who met the following selection criteria: i) being over 18 years of age, ii) having a diagnosis of cancer recorded in the clinical history for more than three months, iii) undergoing active chemotherapy and/or radiotherapy treatment, and iv) expressing their voluntary acceptance to participate by signing the informed consent form.

The study was submitted to the hospital’s ethics committee, in accordance with Resolution 8430 of 1993, as well as Laws 911 of 2004 and 1581 of 2012, Decree 1377 of 2013, the Declaration of Helsinki, and the ethical principles of confidentiality, beneficence, nonmaleficence, and autonomy.

Sociodemographic variables included age, gender, marital status, socioeconomic stratum, educational level, occupation, income, number
of people in the household, number of dependents, main support person, place of origin, place, and area of residence, and difficulty of mobility. The clinical variables were the type of cancer, stage, time of diagnosis, type, and duration of treatment, the latter collected from the patients' medical history.

Additionally, the Coping and Adaptation Processing Scale (CAPS) was used, which is suitable for measuring coping processes, designed by Callista Roy in 2004; this instrument consists of 47 items that, by using short statements, describe the way individuals respond to a crisis or a difficult event and is scored on a Likert scale (8). The instrument was translated into Spanish, with apparent face validity, reliability between 0.90 and 0.94, and stability of 0.8 (9). It was subsequently validated by Paola Sarmiento, Johana Botero, and Gloria Carvajal, who provided continuity to the construct validity and generated a final version of the CAPS scale composed of 33 items, with a Cronbach alpha of 0.71, face validity of 95 %, and content validity of 0.83. The response options range from 0 (never) to 3 (always), with a minimum score of 0 and a maximum of 99 points; the level of coping and adaptation will be considered low (from 0 to 56 points), medium (from 57 to 70 points) and high (from 71 to 99 points) (10).

The researchers collected the information by applying and filling out the instrument manually and then transferring it to a Google® form which generated a database in the Excel® 2019 program where the data were tabulated, coded, and exported to the Stata® 2015 version 14.0 program.

Absolute and relative frequencies were used to describe the quantitative variables of the study. The normality of the continuous variables was determined with the Shapiro Wilk test, using the mean or median in the corresponding case; subsequently, the association between the sociodemographic/clinical variables and the Coping and Adaptation Scale was established using the Chi-squared test and considering a statistical significance of p<0.05.

**Results**

Most participants were female (75 %), in the adult age range (61 %), with a median age of 54 years, a minimum age of 21 years, and a maximum age of 81 years, from a low socioeconomic standing (89 %) and receiving support from their partner (50 %) and their children (28 %) (Table 1).

Most of them live in urban areas (78 %), some of them live with two people in their household (42 %), some have a dependent (33 %), and some stated that they face financial difficulties in commuting to the healthcare institution (42 %).

The participants have been diagnosed primarily with breast cancer (43 %), as well as gynecologic (17 %), hematologic (11 %), and gastrointestinal (10 %) cancers (Table 2).
Table 1. Sociodemographic characterization of cancer patients, n=100

| Variable                  | n  | %  |
|---------------------------|----|----|
| **Age**                   |    |    |
| 18-28 years               | 3  | 3  |
| 29-59 years               | 61 | 61 |
| 60 years or older         | 36 | 36 |
| **Sex**                   |    |    |
| Male                      | 25 | 25 |
| Female                    | 75 | 75 |
| **Marital status**        |    |    |
| Married                   | 48 | 48 |
| Free union                | 15 | 15 |
| Widow/Widower             | 6  | 6  |
| Divorced or separated     | 3  | 3  |
| Single                    | 28 | 28 |
| **Socioeconomic stratum** |    |    |
| Low                       | 89 | 89 |
| Medium                    | 11 | 11 |
| **Level of education**    |    |    |
| Primary                   | 41 | 41 |
| Bachelor’s Degree         | 30 | 30 |
| Technician/technologist   | 16 | 16 |
| Undergraduate             | 10 | 10 |
| Postgraduate              | 3  | 3  |
| **Occupation**            |    |    |
| Housekeeper               | 45 | 45 |
| Farmer                    | 4  | 4  |
| Unemployed                | 13 | 13 |
| Employed                  | 12 | 12 |
| Freelancer                | 14 | 14 |
| Retired                   | 12 | 12 |
| **Primary supporting person** |    |    |
| Partner                   | 50 | 50 |
| Son/daughter              | 28 | 28 |
| Parents                   | 15 | 15 |
| Sibling                   | 3  | 3  |
| Cousin                    | 1  | 1  |
| Nobody                    | 3  | 3  |

*Source: Own elaboration.*
Table 2. Clinical characterization of cancer patients, n =100

| Variable | n | %  |
|----------|---|----|
| **Type of cancer** |   |    |
| Breast   | 43| 43 |
| Gynecologic (cervix, endometrium and ovary) | 17| 17 |
| Hematologic (acute lymphoblastic leukemia, non-Hodgkin's lymphoma, Hodgkin's lymphoma, and multiple myeloma). | 11| 11 |
| Gastrointestinal (gastric, ampulla of Vater, colon and rectum) | 10| 10 |
| Head and neck (nasal cavity, thyroid, pharynx, oropharynx, and parotid gland) | 7 | 7  |
| Prostate | 5 | 5  |
| Soft tissue (mesenchymal angiosarcoma, leiomyosarcoma, abdominal wall) | 3 | 3  |
| Lung     | 2 | 2  |
| Skin     | 2 | 2  |
| **Stage of cancer** |   |    |
| I        | 8 | 8  |
| II       | 25| 25 |
| III      | 38| 38 |
| IV       | 18| 18 |
| NA       | 11| 11 |
| **Type of treatment** |   |    |
| Chemotherapy | 58| 58 |
| Radiotherapy  | 33| 33 |
| Chemotherapy and radiotherapy | 9 | 9  |

Source: Own elaboration.

Participants demonstrated to have the following capabilities: high coping and adaptive capabilities (53 %), medium (40 %), and low (7 %) capabilities. Participants felt comfortable handling the situation in the best possible way (84 %) and seek all means available to cope with the situation (75 %); likewise, they accepted the situation as it presented itself (72 %), had expectations of how it would be resolved (67 %), were attentive to any related issue (65 %), took the necessary time before acting (65 %), clarified any doubts (64 %), never gave up easily (68 %), felt they could handle the situation (55 %), adopted new skills to resolve it (50 %), never felt guilty, never overreacted, and never became stuck and confused (49 %). While they focused their feelings and emotions in a helpful way (44 %), they had difficulties in completing activities, tasks, and projects (37 %), never thought about the problem (33 %), and made drastic changes in their lives (28 %).

Regarding the associations between coping capabilities with the different variables, two were found to be statistically significant. The first identified that participants who had a partner presented high coping and adaptive capabilities (55 %), which is evidenced by a p=0.020 (Table 3).
Table 3. The association of the coping and adaptation level according to the primary support person, n=100

| Variable       | Low coping | Medium coping | High coping | P   |
|----------------|------------|---------------|-------------|-----|
|                | n          | %             | n           | %   | N   | %   |
| Parents        | 0          | 0             | 9           | 23  | 6   | 11  |
| Sibling        | 1          | 14            | 1           | 3   | 1   | 2   |
| Partner        | 3          | 43            | 18          | 45  | 29  | 55  |
| Son/daughter   | 2          | 29            | 10          | 25  | 16  | 30  |
| Cousin         | 1          | 14            | 0           | 0   | 0   | 0   |
| Nobody         | 0          | 0             | 2           | 5   | 1   | 2   |

Source: Own elaboration.

The second association demonstrated that patients with high coping capabilities were undergoing chemotherapy (68%), and those with low coping capabilities were undergoing radiotherapy treatment (71%) (p=0.005) (Table 4).

Table 4. The association between the coping and adaptation levels according to the type of treatment, n=100

| Variable                        | Low coping | Medium coping | High coping | P   |
|---------------------------------|------------|---------------|-------------|-----|
|                                 | n          | %             | n           | %   | N   | %   |
| Chemotherapy                    | 2          | 29            | 20          | 50  | 36  | 68  |
| Radiotherapy                    | 5          | 71            | 12          | 30  | 16  | 30  |
| Chemotherapy and radiotherapy   | 0          | 0             | 8           | 20  | 1   | 2   |

Source: Own elaboration.

Discussion

Breast cancer was the most prevalent (11), followed by cervical and endometrial cancer, which accounted for the greater participation of the female gender in this study; regarding the male gender, the types of cancer with the greatest presentation were prostate and head and neck cancers. In both sexes, stages II and III were prevalent, while the effects of treatment were significantly more common in adults who received radiotherapy (12).

Women with breast cancer applied active coping strategies, which is expressed through positive reframing, acceptance, and the use of emotional support (13), strategies that are similar to others also used, such as expecting a solution, accepting reality, and the presence of support, without these strategies being influenced by the type of cancer.
In addition, high expectancy and difficulty in completing activities were presented; this phenomenon has been described in a study in which, even in treatment, they esteem themselves and feel useful in society which demonstrates, with positive coping, high levels of hope (14). With a positive approach and orientation, it has also been demonstrated that such patients accept the diagnosis and adopt an optimistic posture (15). However, they may sometimes feel weak in performing daily life activities, become disinterested, fearful, and worried that they will get worse (16).

One of the coping strategies most commonly employed by oncology patients is emotional orientation, while the least used is avoidance (17). These are feelings that resemble feeling good when dealing with the situation as best as possible, never giving up easily, taking charge quickly, and accepting the disease without avoiding it. Other coping strategies that have been applied are the following ones: religiosity, positive re-assessment, problem-solving, and seeking professional support, which are similar to accepting the event, clarifying doubts, and seeking all possible means for its solution. Therefore, some report that the more these types of strategies are used, the lower the levels of anxiety and depression experienced by oncologic patients (18).

Additionally, they deploy strategies such as accepting their diagnosis, participating in different activities, seeking information, and expressing their emotions (19), which are related to those handled by the participants in this study in the search for all possible means to cope with the situation, viewing difficult situations as an opportunity or a challenge, proposing different solutions to resolve it and trying to clarify any doubts before acting, all of which contribute to improving the level of coping.

It is worth noting that no statistically significant difference was found between men and women in the use of coping strategies (20). Those who retain high coping and adaptive capabilities are mostly adults aged over 65 who use strategies such as a favorable and positive approach to decision-making (21), which does not correspond to this study’s results, since no association with age was found.

It has been demonstrated that a relationship exists between strong family support and effective coping strategies (22); in effect, patients’ families promote an adequate adaptation and their partners are identified as the most significant source of support in order to be able to talk openly on the topic. Even the support received is considered by some authors as the most important variable to value (23); thus, a stable partner is associated with support and daily care activities that influence especially the elderly (24). This is reflected in cases where the primary support person belongs to a consanguineous line and where those with high coping capabilities rely on their intimate partners for support.

It is relevant to mention the importance of assertive communication between the nursing staff and the companions, regarding
which patients recognize their effectiveness —whether in the waiting room or virtually—, which allows them to be involved in the entire disease process in order to be able to identify discomfort and intervene promptly.

Meanwhile, other studies have found several restrictions in daily activities generated by cancer treatments (25, 26), which were especially evident in participants undergoing radiotherapy, who developed a low coping capability; one of the reasons for this lies in the lack of information provided by healthcare personnel regarding the treatment, the most important care needed by patients, or the changes that occur at the physical level (27).

The length of time from diagnosis was not associated with coping capabilities, but those who used strategies such as expressing positive emotions, reframing the experience positively, and cultivating a sense of peace and meaning in their lives reported greater stability during their diagnosis (28).

Furthermore, Acinas (29) observed that by delaying coping and not taking charge, the probability of feeling guilty and increasing distress increases; in this regard, the results of this research indicate that most participants have never felt guilty and have always taken charge of the problem quickly. Likewise, it has been reported that one of the most commonly used strategies is to implement radical changes six months after diagnosis (30), similar to what was found in our study in which some cancer patients made drastic changes in order to overcome the situation.

Similarly, it was evident that in the initial phase of treatment patients apply coping strategies focused on the event and the pursuit of religious practices or unrealistic thoughts (31), which did not demonstrate any dependence between the duration of treatment and the strategies used.

The responsibility of being in charge did not demonstrate any relationship with coping capabilities; however, if the patient is a direct caregiver, some degree of anxiety, stress, or extra burden may be generated, which limits the effective fulfillment of tasks related to the patient’s occupation and treatment, and also affects the patient’s level of adaptation (32).

Despite not evidencing concordance between occupation and coping in this study, a small group of housekeepers with breast cancer in Indonesia were found to be more likely to apply problem-focused coping strategies by positively re-assessing themselves and seeking social support, thus lessening the burden of their illness; on the other hand, those who demonstrated low levels of coping were those who used emotional strategies, that is, they distanced themselves and avoided their situation (33).

In addition to the physical and emotional impacts, patients with cancer must face challenges and threats related to the loss of finan-
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Social security and the lifestyle changes they must make; although no relationship was found between their income and their level of coping capabilities, interventions should be implemented to support their financial management during their illness (34).

The presence or absence of physical and/or economic difficulties was not relevant regarding coping levels; however, any barrier — whether of physical, social, psychological or spiritual origin— has the potential to generate suffering when it is perceived as a threat and will not allow patients to cope and adapt (35).

Other variables that were not associated with the results of the coping levels in this study were the place of origin and residence, factors that have been considered as barriers in the literature, given that not only were the sociodemographic aspects, distance, or lack of regional services the factors identified as obstacles, but also cultural factors, communication, coordination and the limitation of means for diagnosis, all of which were considered disadvantages for oncologic patients (36).

Performing a timely nursing diagnosis in the care process allows for the implementation of interventions aimed at eliminating, increasing, decreasing, or altering the stimuli that threaten the objective of adaptation, where the most important aspect is for patients to never lose their resilience and to become stronger along with their support network.

Finally, cancer involves a process that is characterized by a series of stages that, as the disease and treatment progress, changes will be carried out in order to assist patients in adapting to the new situation. Healthcare personnel, and especially the nursing team that interacts with patients in a close and prolonged manner, must act responsibly and competently in a process that is becoming increasingly complex, due to new treatments, medications, and side effects; in fact, not having such assertiveness would trigger discomfort, frustration, or feelings of incompetence in healthcare providers and in their patients (37).

Conclusions

Permanent support is essential for patients with cancer, who demonstrate improvements by having partners and by allowing them to be accompanied during treatment sessions, which strengthens their adaptation to their new process.

Although the participants in this study presented high levels of adaptation, it is essential for healthcare providers - especially nursing personnel - to be aware of the processes that each patient goes through in order to cope with and adapt to a new situation such as the emergence of cancer; therefore, when talking to patients, it is necessary to inquire about stressful events in order to guide them towards stress reduction by promoting the active search for solu-
tions, satisfaction with their actions and acceptance of the current situation, which allows patients to develop coping and adaptation capabilities regarding the process they are undergoing. Therefore, care is transcendent, leaving aside the intervention focused on pathology to focus on providing holistic, constant, humane, and professional care.

In light of the above, the nursing field, being aware of the impact that the diagnosis of cancer has on individuals, which is viewed by them as a life-threatening event, should lead a multidisciplinary management support network, in which the providers identify the adaptation needs according to the effects that occur at the physiological level, self-concept, interdependence, and the performance of their role. By performing a behavioral analysis and the internal and external stimuli that influence patients’ health, a timely, continuous, and comprehensive management can be achieved, which subsequently allows sharing the benefits of the process with other patients.

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