SOCIAL RESEARCH REPORTS

ISSN: 2066-6861 (print), ISSN: 2067-5941 (electronic)

**EXPLORING THE DEPRESSION, ANXIETY, QUALITY OF LIFE
AND SELF-EFFICACY OF ONCOLOGICAL PATIENTS AND THEIR
CAREGIVERS: A LITERATURE REVIEW**

Adelina STEFANUT, Mona VINTILA

Social Research Reports, 2019, Vol. 11, Issue 1, pp. 104-116

The online version of this article can be found at:

www.researchreports.ro

<https://doi.org/10.33788/srr11.1.8>

Published by:

Expert Projects Publishing House

Covered by Index Copernicus International

www.indexcopernicus.com

Directory of Open Access Journals

www.doaj.org

On behalf of:

Center for Program and Social Development

Additional services and information about Social Research Reports
can be found at:

www.researchreports.ro

EXPLORING THE DEPRESSION, ANXIETY, QUALITY OF LIFE AND SELF-EFFICACY OF ONCOLOGICAL PATIENTS AND THEIR CAREGIVERS: A LITERATURE REVIEW

Adelina STEFANUT¹, Mona VINTILA²

Abstract

Coping with cancer is a difficult experience for both the person diagnosed and the family. It has been found that the dyad consisting of the patient and the caregiver responds to the threat of the disease as a unique emotional system. Therefore, in recent years the focus of research and psychological interventions has shifted from person to the dyad. This paper reviews the literature to: a) highlight the main psychological consequences faced by cancer patients and their caregivers: depression, anxiety, self-efficacy, decreased quality of life, and relationships between them; b) summarise the directions of psychological intervention as they result from the studies. The conclusion of this paper advocates for the need for psychological evaluation and support for both oncological patients and their caregivers.

Keywords: cancer, dyads, depression, anxiety, quality of life, self-efficacy.

Introduction

Cancer is one of the most difficult experiences a person can face during his or her lifetime, causing major changes in different areas of life. The disease itself or the treatment affects physical functioning (due to pain, weakness, fatigue, change of appearance), the mental state (through distress, anxiety, depression, fear, despair), influences living conditions, and may lead to existential or spiritual dilemmas (Cieślak, 2013). Also, cancer can be particularly difficult for the elderly, when there is no family to support them (Bucur, 2012)

For families seeking the support of a social worker, the language used by the professional may be ambiguous when it comes to semantics, but the social worker (and other specialists) have the responsibility to use proper terms (Goian, Vintila, & Bucur, 2012) and also show empathy, respect and authenticity. Spirituality is once again a current subject in the field of social work, and understanding the spiritual interest of beneficiaries can be a resource for practitioners (Neagoe *et*

¹ Department of Psychology, West University of Timisoara, ROMANIA. E-mail: adurbalau@gmail.com

² Department of Psychology, West University of Timisoara, ROMANIA. E-mail: mona.vintila@e-uvt.ro

al., 2018) when approaching the subject of cancer.

However, this diagnosis does not only affect the life of the patient, but also of his or her caregivers. Their activities are varied, including: purchase and management of drugs, symptom management, nutritional assistance, emotional support, coordination of care, communication with medical staff. All these add to the responsibilities that caregivers already had in the family, and can be supplemented by some of the tasks previously carried out by the patient (Otis-Green & Juarez, 2012). Because caregivers are expected to provide complex care with little training and support, they often feel that their resources are outweighed by the demand of care tasks, so they feel overwhelmed and report a high level of distress. Attitudes about health and life experiences vary from an individual to another and this could be caused by a lack of health information, a low socio-economic level (Vintila *et al.*, 2009), and a lower level of personal development. Thus, the focus of psychological care and research in cancer has shifted from individual experiences to the experience of patient-caregiver dyad. Life experiences are own, subjective experiences that depend not only on the individual, but also on environmental factors (Tudorel, Macsinga, & Virga, 2013). In this context, social support can be view as a protective factor that could reduce the effect of stressful, overwhelming life events (Tudorel & Vintila, 2018).

One of the most used conceptualisations of the dyad is the one in which it is considered to be a functional unit involving three levels: communication (the transactional process in which people create, share and regulate meaning), mutual influence (the effect that the two members of the dyad have on each other), and caregiver-patient congruence (the synthesis of individual data in a dyadic variable relative to agreement, conformity, or, on the contrary, to disagreement) (Fletcher, Miaskowski, Given, Schumacher, 2012). This systematic review of literature aims to investigate the depression, anxiety, quality of life and self-efficacy of oncological patients and their caregivers, as well as the reciprocal influence reflected in these variables. It also aims to summarise the recommendations regarding the definition of dyadic interventions, as it results from the analysed studies.

Methodology

Methods for Identifying Studies

To obtain relevant articles on the analysed topics, a systematic search was carried out in the PsycInfo and Medline databases. The search considered studies published between 2000 and 2018, and was done at the abstract level using the keywords “cancer” OR “neoplasm” AND “dyad” AND “caregiver”.

Inclusion and Exclusion Criteria

The papers included in this review met the following criteria: they were published between 2000 and 2018 in English in peer-reviewed journals. Subjects

included in the studies were adult cancer patients and their caregivers - partners or other family members or friends who constituted the patient's main source of physical or emotional support. Articles containing interventions, programs or literature reviews were not included in the study.

The Selection Process

By applying the search criteria in the specified databases, 346 articles were identified. Of these, 125 duplicates were removed. The abstracts of the remaining articles were analysed using the inclusion and exclusion criteria, which led to the removal of another 170 articles. The remaining studies have been thoroughly analysed, and 7 other articles were eliminated based on the same criteria. Therefore, 44 eligible articles were included in the final analysis.

The selection process is shown in the PRISMA diagram below.

Data Extraction

Data were extracted from the eligible studies included in the analysis using the following standard format: country where the study was conducted, number of dyads included, type of cancer diagnosed, type of caregiver, stage of disease, information from literature, purpose of the study, tools used for the evaluation, conclusions, recommendations for intervention. A summary of the collected data can be found in *Table 1*.

Results

Characteristics of the Studies Found

Of the total of 44 eligible studies, 20 (45.5%) were conducted in the US, 5 (11.3%) in Taiwan, 4 (9%) in South Korea, 3 (6.8%) in China, 2 studies (4.5%) in the UK, New Zealand and Greece, and 1 study (2.2%) in Canada, Switzerland, Israel, Japan, Malaysia, Sudan. The number of dyads included in the studies varied between 10 and 990. The types of cancer faced by those included in the studies were: head and neck – 5 studies (11.3%), lung – 5 studies (11.3%), breast 5 studies (11.3%), colorectal or lung – 2 studies (4.55%), prostate – 2 studies (4.55%), oesophagus – 1 study (2.27%), breast or prostate – 1 study (2.27%), breast or gynaecological – 1 study (2.27%), different types of cancer – 22 studies (50%). In 9 studies, the caregivers were partners of the patient, and in the other 35 the caregivers were partners or other family members or friends. In 14 of the studies analysed, only advanced patients (stage III or IV) were included, while in the other 30 patients included were at any stage of the disease.

Depression in the Patient, the Caregiver, and Mutual Influences

Some authors (Sterba *et al.*, 2017; Tan *et al.*, 2018; Kim *et al.*, 2015, Han *et al.*, 2013) found a similar level of depressive symptoms for patients and caregivers. However, there are studies that report higher levels of patient depression compared to caregiver depression. In the case of an older sample (patients: $m = 90.49$ (2.40), caregivers: $m = 84.96$ (9.87)), the patient's depression level is much higher than that of the caregivers ($m = 4.04$ (1.07) vs. $m = 0.42$ (0.66)) (Goldzweig *et al.*, 2017). A higher level of depression is also found in a sample of patients with head and neck cancer who underwent chemotherapy or radiotherapy, and in their caregivers ($m = 24.54$ vs. $m = 10.3$) (Nightingale, Lagorio, & Carnaby, 2014). As far as gender differences are concerned, it results that women, regardless of role (patient or caregiver), have a higher level of depression than men (Moser *et al.*, 2013).

Patients: Jeong *et al.* (2016) showed that patient depression is positively associated with the disease's stage, a more advanced stage of the disease predicting a higher depression level ($\beta = 0.112$, $p < .05$). A high level of patient depression is also predicted by a high avoidance of family discussions in relation to the disease ($\beta = 0.25$, $p < .001$) and low family emotional support ($\beta = -0.12$, $p < .05$) (Jeong *et al.*, 2016). Another research targeting patients diagnosed with oesophageal cancer and their caregivers reveals that for patient depression the most important predictor is the lack of hope ($\beta = 0.965$, $p < .001$), but also knowing the diagnosis ($\beta = -0.765$, $p < .05$) and the stage of disease ($\beta = 0.864$, $p < .05$) (Han *et al.*, 2013). An analysis that looked at the family environment and the depressive symptomatology in some patients with lung cancer and their caregivers found that a higher level of depressive symptomatology of patients is associated with age ($\beta = -2.02$, $p < .05$), blame attributed to the patient for the disease by his or her family ($\beta = 1.1$, $p < .05$), and a more pronounced physical deterioration ($\beta = 0.465$, $p < .0001$) (Siminoff, Wilson-Genderson, & Baker, 2010).

Caregivers: A study involving newly diagnosed patients and their caregivers found that almost a third of these caregivers had a risk of developing clinical depression and a moderate / large number of their unmet needs were positively associated with the existence of depressive symptoms (Heckel *et al.*, 2015). The care of patients with advanced disease and cognitive impairment has been associated with an increase in the potential for a major depressive disorder (Meyer *et al.*, 2013). A series of research has found that a younger age of the caregivers is correlated with more pronounced depressive symptoms (Paek *et al.*, 2018, Lee *et al.*, 2013, Siminoff *et al.*, 2010). The situation in which the patient underestimates the burden on the caregivers ($\beta = 0.09$, $p < .05$) (Shin *et al.*, 2018), when their night-time sleep is less than 7h (Paek *et al.*, 2018), when the patient is blamed for the occurrence of the disease ($\beta = 0.97$, $p < .05$), when there is a more pronounced physical deterioration ($\beta = 0.40$, $p < .001$), a lower familial expression ($\beta = 0.59$, $p < .001$) (Siminoff *et al.*, 2010), or when the caregiver is the patient's partner (Siminoff *et al.*, 2010; Lee *et al.*, 2013) increase the risk of depressive symptoms. Another study (Jaafar *et al.*, 2014) found that the educational level of the caregivers was positively associated with their depression level ($\beta = 2.23$, $p < .05$), while the functional level of the patients was negatively associated with the

level of depression of the caregivers ($\beta = -1.49, p < .05$). Lee *et al.* (2013) show that in the case of caregivers of lung cancer patients, depression is significantly associated with the existence of own painful symptoms, with the care of another family member, with previous care experience, family income and self-efficacy in managing symptoms.

Anxiety in the Patient, the Caregiver, and Mutual Influences

Tan *et al.* (2018) found a similar level of anxiety scores for patients and caregivers, but a higher incidence of anxiety in the case of caregivers (46.5% vs. 32.6%). In terms of gender differences, it was found that women, regardless of role – patient or caregiver – had a higher level of anxiety than men (Moser *et al.*, 2013).

Patients: The results of the multiple hierarchical regression performed by Jeong *et al.* (2016) showed that patients' anxiety is negatively associated with their age, the older age predicting a lower anxiety level ($\beta = -0.172, p < .01$). A high level of patient anxiety is also predicted by a high avoidance of family discussions in relation to the disease ($\beta = 0.14, p < .05$) and by low family emotional support ($\beta = -0.22, p < .001$).

Caregivers: In cases where the patient underestimates the burden of the caregiver, this burden is associated with high levels of anxiety ($\beta = 0.14, p < .01$) (Shin *et al.*, 2018). A night-time sleep duration less than 7h is also correlated with higher anxiety symptoms (Paek *et al.*, 2018). The study by Lee *et al.* (2013) shows that, in the case of caregivers of lung cancer patients, anxiety is significantly associated with the age of the patients, with the existence of some own painful symptoms, with the care of another family member, and with the self-efficacy perceived in the management of symptoms.

Quality of Life in the Patient, the Caregiver, and Mutual Influences

Kim *et al.* (2015) notes that there is a positive correlation ($r = .26$) between the mental health of oncological patients and their caregivers, and Patterson, Rapley, Carding, Wilson, McColl (2013) also identify a positive association between patient and their caregivers' quality of life, measured before treatment but also at 3 and 12 months thereafter ($r = .69, r = .68, r = .69$). Also, the quality of life of women diagnosed with cancer has been found to be positively correlated with the quality of life of their spouses (Duggleby *et al.*, 2015). However, in situations where patients underestimate the burden of their caregivers, this perception is associated with low levels of quality of life ($\beta = -0.88, p < .001$) (Shin *et al.*, 2018). Regarding gender differences, it was found that women, regardless of role – patient or caregiver – had a lower quality of life than men (Moser *et al.*, 2013).

Patients: Patients included in the study of Sterba *et al.* reported a lower physical well-being than their caregivers ($m = 40.5$ vs. $m = 50.6, p < 0.0001$), but similar levels of mental well-being ($m = 43.5$ vs. $m = 45.5, p = 0.25$). Kim *et al.* (2012) showed that in the case of survivors the relationship between the severity of the disease and their mental health is completely mediated by the fear of recurrence of the disease. For survivors, the high level of fear of recurrence of the disease is

associated with a low level of physical ($\beta = -12$, $p < .01$) and mental ($\beta = -0.08$, $p < .05$) health. On the other hand, patients' physical and mental health was also positively associated with the marital satisfaction of patients (Zhou *et al.*, 2011). The preference for knowing the diagnosis is also a variable associated with the quality of life of the patients, the results obtained with respect to this relationship being sometimes contradictory. Thus, Nie *et al.* (2016) found that the level of education ($\beta = 4.5$, $p < .05$) and a positive preference for knowing an unfavourable diagnosis ($\beta = 3.8$, $p < .05$) are positively associated with the quality of life of patients, while Papadopoulos *et al.* (2011) found that not knowing the diagnosis seems to have a protective effect on the physical and mental health of the patients ($\beta = 7.335$, $p < .001$). Regarding the perception of the disease, according to Richardson, Morton, Broadbent (2016), the quality of life of patients at six months after the diagnosis is positively associated with their perceived control over the disease ($\beta = 1.86$, $p < .01$) and the coherence of the perception of the disease by patients and caregivers ($\beta = 1.8$, $p < .01$), and is associated negatively with patient-caregiver discrepancies related to disease progression ($\beta = -1.93$, $p < .05$), the perception of personal control ($\beta = -1.83$, $p < .05$) and the identity of the disease. Another positive association found for the quality of life of oncological patients is spiritual well-being (Kim *et al.*, 2011).

Caregivers: Kim *et al.* (2011) showed that, even for the caregivers of cancer patients, their spiritual well-being is positively associated with their quality of life. There is a positive relationship in terms of the physical ($\beta = .64$, $p < .001$) and mental ($\beta = .79$, $p < .001$) health of the caregivers with their marital satisfaction (Zhou *et al.*, 2011). For caregivers, too, the high level of fear of recurrence of the disease is associated with a low level of mental health ($\beta = -15$, $p < .001$) (Kim *et al.*, 2012). As with patients, their preference for knowing the diagnosis has led to contradictory results. If Nie *et al.* (2016) found that monthly income ($\beta = 1.6$, $p < .05$) and a positive preference for knowing an unfavourable diagnosis ($\beta = 2.5$, $p < .05$) are positively associated with the quality of life of the caregivers, Papadopoulos *et al.* (2011) showed that the patient not knowing the diagnosis seems to have a negative effect on the physical and mental health of the caregiver ($\beta = -11.644$, $p < .001$).

The quality of life of spouses caring for women suffering from breast cancer is positively associated with hope ($\beta = .96$, $p < .05$), and is negatively associated with feelings of guilt ($\beta = -0.48$, $p < .05$) and "doing what is necessary" ($\beta = -9.8$, $p < .05$) (Duggleby *et al.*, 2015).

Another study (Paek *et al.*, 2018) found that the well-being of the caregivers was positively associated with their advanced age ($\beta = 0.45$, $p < .05$), and with the patients' speech and swallowing impediments (both $\beta = 0.15$, $p < .05$). This latter finding is surprising because the general belief is that the more severe symptoms of patients are accompanied by a lower well-being of the caregivers. It could suggest a gap in research between the perceived severity of symptoms and the level of dependence of patients on their caregivers. The same study shows that physical well-being is superior for caregivers with less than 2 comorbidities (Least Square $m = 51.4$ vs. $m = 39.1$, $p < .01$), who sleep more than 7h/night ($m = 50.3$ vs. 39.8 , $p < .05$) and who engage in physical activities at least 3 days a week ($m = 49.6$ vs. 38.2 , $p < .05$).

Self-efficacy in the Patient, the Caregiver, and Mutual Influences

Patients: Patients with higher self-efficacy report in further measurements higher levels of mental health. Also, in patients with higher self-efficacy, the caregivers subsequently exhibit higher levels of physical health (Kershaw *et al.*, 2015). Self-efficacy has also been studied as a predictor of physical and mental consequences, but also as a result of symptoms. Thus, Ellis *et al.* (2017) found that the distress due to symptoms is negatively correlated with individual self-efficacy and perceived self-efficacy at the family level in both patients and caregivers.

Caregivers: The study by Lee *et al.* (2013) shows that caregivers of lung cancer patients with lower self-efficacy in managing symptoms are at greater risk for depression and anxiety. Kershaw *et al.* (2015) also found that caregivers with higher self-efficacy report in further measurements higher levels of mental health (Kershaw *et al.*, 2015). Regarding the self-efficacy of the caregivers in the management of the patients' pain, it was found to correlate positively with their own positive emotionality ($r = .41$, $p < .012$) and negatively with their own negative emotionality ($r = -0.31$, $p < .05$) and the well-being of the patient ($r = -0.28$, $p < .05$) (Keefe *et al.*, 2003).

Recommendations for interventions

Although this literature review included only non-experimental studies that cannot lead to causal conclusions, the relationships highlighted can serve as a starting point in defining future interventions targeting both persons diagnosed with cancer and their caregivers. In fact, the studies analysed suggest the need for the psychological evaluation of not only the patients but also their caregivers, and their inclusion as dyads in interventions.

A first direction that psycho-oncological dyadic interventions may have in mind is to improve communication. This communication may refer to family communication (Shin *et al.*, 2016; Shin *et al.*, 2018) or to communication with the medical team (Richardson *et al.*, 2016, Jeong *et al.*, 2016).

Another aspect that can be integrated into patient and caregiver interventions is to increase their self-efficacy (Kershaw *et al.*, 2015) by learning ways to respond to concrete problems: learning active coping strategies (Kershaw, Northouse, Kritpracha, Schafenacker, Mood, 2004; Zhu *et al.*, 2014), managing pain (Lee *et al.*, 2013), managing patient (Ellis *et al.*, 2017), but also caregiver (Northouse *et al.*, 2002) symptoms, increasing the duration of night-time sleep and improving the level of physical activities (Paek *et al.*, 2018).

The studies analysed also recommend that future interventions should include cognitions that refer to: hope and guilt (Duggleby *et al.*, 2015), fear of recurrence of the disease (Kim *et al.*, 2012), distorted attributions of female partners regarding satisfaction in the relationship (Zhou *et al.*, 2011), changing the popular perception that cancer is considered equivalent to a death sentence (Awadalla *et al.*, 2007), exploring the major concerns of patients and their caregivers (Bambauer *et al.*, 2006).

In defining interventions, it should also be borne in mind that women are more vulnerable in the context of this disease irrespective of role (patient or caregiver)

and that targeting their well-being is beneficial not only to them but also to their partners (Kim *et al.*, 2008; Moser *et al.*, 2013).

Discussion

The studies included in this analysis support the idea of a mutual influence between oncological patients and their caregivers as well as the existence of a common emotional response to the threat of the disease. Thus, Siminoff *et al.* (2010) found that the family environment affects the level of depression of the sick and their caregivers, suggesting that family dynamics would be important for both patients and caregivers. This assertion is consistent with the systemic family theory according to which any change in an individual's functioning affects the functioning of the entire family system.

Another study (Kershaw *et al.*, 2015) finds that there are mutual influences between the physical and mental states of patients and caregivers. This conclusion is framed in the social cognitive theory according to which there are bi-directional influences between the individual factors (cognition, affects, self-efficacy), the environment (family) and behaviour. Patients and caregivers see the experiences that their partners have in the context of the disease/care and can learn, being influenced by these experiences.

Interdependence regarding the quality of life of patients and caregivers is also found by Nightingale *et al.* (2014). They explain this by the theory of emotional contagion that states that people unconsciously adopt the emotional states of those with whom they are in a relationship, and that they have non-verbal behaviours that generate similar emotional experiences. This emotional contagion is more likely to occur when individuals have a high degree of similarity or when faced with a common threat (Hatfield *et al.*, 1992 apud Nightingale *et al.*, 2014).

Regardless of the theoretical explanation, the common emotional response of patients and caregivers to the disease is supported by the results of the studies, therefore future interventions need to take into account this state of affairs.

Shortcomings Identified in Research

Of the 44 studies analysed, 20 were conducted in the US, plus 8 studies that were conducted in other Western countries. Therefore, other geographic areas are little represented or not represented at all in the analysis. Although the review also included longitudinal studies that were carried out over periods ranging from a few months to two years, there are no studies to show the evolution of depression, anxiety, quality of life and self-efficacy of patients and their caregivers throughout the course of the disease from the diagnosis to the mourning phase.

Limits and Research Directions

The limits of this paper are primarily due to the fact that the studies included were non-experimental. These allow the outlining of an image of the difficulties

faced by oncological patients and their caregivers, but cannot be used as an argument in establishing causal relationships. Even if the statistical analyses carried out in some studies included modeling through structural equations or the analysis of the effects of partner interaction, and in this context the specific terminology includes predictive terms, the relationships described are not causal.

All of the studies analysed applied different inclusion and exclusion criteria (type of cancer, type of caregiver, stage of disease, time in the course of the disease), which led to a good definition of the area of interest, but, on the other hand, this is a hindrance to generalise the results obtained. Another limit arises from the existence of psychological variables that were not included in the analysis, such as the patient and the caregiver's distress or the caregiver's burden.

Subsequent studies may consider removing the limits described. Thus, in order to analyse causal relationships, a meta-analysis can be carried out, including experimental studies. Another literature review may only include studies that are not dedicated to specific types of cancer. It is also recommended that these systematic reviews include other psychological variables relevant to the oncological context.

Conclusion

This systematic literature review allows the understanding of the psychological difficulties faced by cancer patients and their caregivers. Also, helping families in building their resilience can prove helpful when the individuals need to adapt a new environment. (Otovescu *et al.*, 2015). The main result highlighted is that the disease affects the mental and physical well-being not only of the patient but also of the family members. This is supported by multiple reports of high levels of depression and anxiety and low quality of life for those diagnosed with cancer and their caregivers. The analysed studies have shown not only that patients and caregivers respond as a unique emotional system to the disease, but also that there are mutual psychological influences that lead to the recommendation of constructing interventions dedicated to dyads, and not to individuals. Given the high incidence of this disease, understanding the difficulties faced by those affected and developing programs to provide the necessary support remains a priority.

References

- Awadalla, A.W., Ohaeri, J.U., Gholoum, A., Khalid, A.O., Hamad, H.M., Jacob, A. (2007). Factors associated with quality of life of outpatients with breast cancer and gynecologic cancers and their family caregivers: a controlled study. *BMC Cancer*, 7, 102
- Bambauer, K.Z., Zhang, B., Maciejewski, P.K., Sahay, N., Pirl, W.F., Block, S.D., Prigerson, H.G. (2006). Mutuality and specificity of mental disorders in advanced cancer patients and caregivers. *Social Psychiatry and Psychiatric Epidemiology*, 41(10), 819-824.
- Bucur, M. (2012). *Asistența socială a vârstnicului dependent de îngrijiri*. București: Pro Universitaria.

- Cieślak, K. (2013). Professional psychological support and psychotherapy methods for oncology patients. Basic concepts and issues. *Reports of practical oncology and radiotherapy*, 18, 121-126.
- Duggleby, W., Thomas, J., Montford, K.S., Thomas, R., Nikolaichuk, C., Ghosh, S., Cumming, C., Tonkin, K. (2015). Transitions of male partners of women with breast cancer: Hope, guilt, and quality of life. *Oncology Nursing Forum*, 42(2), 134-141.
- Ellis, K.R., Janevic, M.R., Kershaw, T., Caldwell, C.H., Janz, N.K., Northouse, L. (2017). The influence of dyadic symptom distress on threat appraisals and self-efficacy in advanced cancer and caregiving. *Supportive Care in Cancer*, 25(1), 185-194.
- Fletcher, B., Miaskowski, C., Given, B., Schumacher, K. (2012). The cancer family caregiving experience: an updated and expanded conceptual model. *European Journal of Oncology Nursing*, 16, 387-398.
- Goian, C., Vintila, M., & Bucur, V. M. (2012). Analysis of terminology usage for Rapepeople among Social Work professionals in Romania. *Social Research Reports*, 22, 5-27.
- Goldzweig, G., Baider, L., Andritsch, E., Pfeffer, R., Rottenberg, Y. (2017). A dialogue of depression and hope: Elderly patients diagnosed with cancer and their spousal caregivers. *Journal of Cancer Education*, 32(3), 549-555.
- Han, Y., Yuan, J., Luo, Z., Zhao, J., Wu, J., Liu, R., & Lopez, V. (2013). Determinants of hopelessness and depression among Chinese hospitalized esophageal cancer patients and their family caregivers. *Psycho-Oncology*, 22(11), 2529-2536.
- Heckel, L., Fennell, K.M., Reynolds, J., Osborne, R.H., Chirgwin, J., Botti, M., Ashley, D.M., Livingston, P.M. (2015). Unmet needs and depression among carers of people newly diagnosed with cancer. *European Journal of Cancer*, 51, 2049- 2057.
- Jaafar, N.R.N., Din, S.H.S., Saini, S.M., Ahmad, S.N.A., Midin, M., Sidi, H., Silim, U.A., Baharudin, A. (2014). Clinical depression while caring for loved ones with breast cancer. *Comprehensive Psychiatry*, 55(Suppl 1), S52-S59.
- Jeong, A., Shin, D.W., Kim, S.Y., Yang, H.K., Park, J-H. (2016). Avoidance of cancer communication, perceived social support, and anxiety and depression among patients with cancer. *Psycho-Oncology*, 25(11), 1301-1307.
- Keefe, F.J., Ahles, T.A., Porter, L.S., Sutton, L.M., McBride, C.M., Pope, M.S., McKinstry, E.T., Furstenberg, C.P., Dalton, J.A., Baucom, D.H. (2003). The self-efficacy of family caregivers for helping cancer patients manage pain at end-of-life. *Pain*, 103(1-2), 157-162.
- Kershaw, T., Ellis, K.R., Yoon, H., Schafenacker, A., Katapodi, M., Northouse, L. (2015). The interdependence of advanced cancer patients' and their family caregivers' mental health, physical health, and self-efficacy over time. *Annals of Behavioral Medicine*, 49(6), 901-911.
- Kershaw, T., Northouse, L., Kritpracha, C., Schafenacker, A., Mood, D. (2004). Coping strategies and quality of life in women with advanced breast cancer and their family caregivers. *Psychology & Health*, 19(2), 139-155.
- Kim, Y., Carver, C.S., Spillers, R.L., Crammer, C., Zhou, E.S. (2011). Individual and dyadic relations between spiritual well-being and quality of life among cancer survivors and their spousal caregivers. *Psycho-Oncology*, 20(7), 762-770.
- Kim, Y., Carver, C.S., Spillers, R.L., Love-Ghaffari, M., Kaw, C-K. (2012). Dyadic effects of fear of recurrence on the quality of life of cancer survivors and their caregivers.

- Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation*, 21(3), 517-525.
- Kim, Y., Kashy, D.A., Wellisch, D.K., Spillers, R.L., Kaw, C.K., Smith, T.G. (2008). Quality of life in couples dealing with cancer: Dyadic and individual adjustment among breast and prostate cancer survivors and their spousal caregivers. *Annals of Behavioral Medicine*, 35(2), 230-238.
- Kim, Y., van Ryn, M., Jensen, R.E., Griffin, J.M., Potosky, A., Rowland, J. (2015). Effects of gender and depressive symptoms on quality of life among colorectal and lung cancer patients and their family caregivers. *Psycho-Oncology*, 24(1), 95-105.
- Lee, Y-H., Liao, Y-C., Liao, W-Y., Shun, S-C., Liu, Y-C., Chan, J-C., Yu, C-J., Yang, P-C., Lai, Y-H. (2013). Anxiety, depression and related factors in family caregivers of newly diagnosed lung cancer patients before first treatment. *Psycho-Oncology*, 22(11), 2617-2623.
- Meyer, F., Zhang, B., Gao, X., Prigerson, H.G. (2013). Associations between cognitive impairment in advanced cancer patients and psychiatric disorders in their caregivers. *Psycho-Oncology*, 22(4), 952-955.
- Moser, M.T., Künzler, A., Nussbeck, F., Bargetzi, M., Znoj, H.J. (2013). Higher emotional distress in female partners of cancer patients: Prevalence and patient-partner interdependencies in a 3-year cohort. *Psycho-Oncology*, 22(12), 2693-2701.
- Neagoe, A., Tranca, L. M., Balauța, D. S., & Vlaicu, F. L. (2018). Values Focused Social Work Practice Master's Degree - a Model of Pedagogical Good Practice. *Revista de Asistența Socială*, 1, 27-32.
- Nie, X., Ye, D., Wang, Q., Manyande, A., Yang, L., Qiu, H., Chao, T., Zhang, P., Gong, C., Zhuang, L., Yu, S., Xiong, H. (2016). Poor-prognosis disclosure preference in cancer patient - caregiver dyads and its association with their quality of life and perceived stress: A cross-sectional survey in mainland China. *Psycho-Oncology*, 25(9), 1099-1105.
- Nightingale, C.L., Lagorio, L., Carnaby, G. (2014). A prospective pilot study of psychosocial functioning in head and neck cancer patient-caregiver dyads. *Journal of Psychosocial Oncology*, 32(5), 477-492.
- Northouse, L.L., Mood, D., Kershaw, T., Schafenacker, A., Mellon, S., Walker, J., Galvin, E., Decker, V. (2002). Quality of life of women with recurrent breast cancer and their family members. *Journal of Clinical Oncology*, 20(19), 4050-4064.
- Otis-Green, S., & Juarez, G. (2012). Enhancing the Social Well-Being of Family Caregivers. *Seminars in Oncology Nursing*, 28, 246-255.
- Otovescu, C., Otovescu, A., Motoi, G. & Otovescu, D. (2015). Resources of resilience amongst the urban population. *Revista de Cercetare si Interventie Socială*, 48, 32-49.
- Paek, M.S., Nightingale, C. L., Tooze, J. A., Milliron, B.J., Weaver, K.E., Sterba, K.R. (2018). Contextual and stress process factors associated with head and neck cancer caregivers' physical and psychological well-being. *European Journal of Cancer Care*, 27(2), 1-10.
- Papadopoulos, A., Vrettos, I., Kamposioras, K., Anagnostopoulos, F., Giannopoulos, G., Pectasides, D., Niakas, D., Economopoulos, T. (2011). Impact of cancer patients' disease awareness on their family members' health-related quality of life: A cross-sectional survey. *Psycho-Oncology*, 20(3), 294-301.
- Patterson, J. M., Rapley, T., Carding, P. N., Wilson, J. A., McColl, E. (2013). Head and

- neck cancer and dysphagia; caring for carers. *Psycho-Oncology*, 22(8), 1815-1820.
- Richardson, A. E., Morton, R.P., Broadbent, E.A. (2016). Changes over time in head and neck cancer patients' and caregivers' illness perceptions and relationships with quality of life. *Psychology & Health*, 31(10), 1203-1219.
- Shin, D.W., Shin, J., Kim, S.Y., Yang, H.K., Cho, J., Youm, J.H., Choi, G.S., Hong, N.S., Cho, B., Park, J.H. (2016). Family Avoidance of Communication about Cancer: A Dyadic Examination. *Cancer Research and Treatment*, 48(1), 384-392.
- Shin, J. Y., Lim, J.-W., Shin, D. W., Kim, S. Y., Yang, H.-K., Cho, J., Jeong, A., Jo, D., Yim, C.-Y., Park, K., Park, J.-H. (2018). Underestimated caregiver burden by cancer patients and its association with quality of life, depression and anxiety among caregivers. *European Journal of Cancer Care*, 27(2), 1-9.
- Siminoff, L.A., Wilson-Genderson, M., Baker, S.Jr. (2010). Depressive symptoms in lung cancer patients and their family caregivers and the influence of family environment. *Psycho-Oncology*, 19(12), 1285-1293.
- Sterba, K.R., Zapka, J., Armeson, K.E., Shirai, K., Buchanan, A., Day, T.A., Alberg, A.J. (2017). Physical and emotional well-being and support in newly diagnosed head and neck cancer patient-caregiver dyads. *Journal of Psychosocial Oncology*, 35(6), 646-665.
- Tan, J.-Y., Molassiotis, A., Lloyd-Williams, M., Yorke, J. (2018). Burden, emotional distress and quality of life among informal caregivers of lung cancer patients: An exploratory study. *European Journal of Cancer Care*, 27(1), 1-11.
- Tudorel, O. I., & Vintila, M. (2018). The role of Social Support on Internet Addiction. *Revista de Asistenta Sociala*, 1.
- Tudorel, O. I., Macsinga, I., & Virga, D. (2013). Actualizarea de sine: de la starea de bine la viziunea asupra lumii. *Romanian Journal of Applied Psychology*, 15(1), 20-26.
- Vintila, M., Marklinder, I., Nydahl, M., Istrat, D., & Kuglis, A. (2009). Health awareness and behaviour of the elderly: between needs and reality. A comparative study. *Revista de Psihologie Aplicata*, 11(2), 81-87.
- Zhou, E.S., Kim, Y., Rasheed, M., Benedict, C., Bustillo, N.E., Soloway, M., Kava, B.R., Penedo, F.J. (2011). Marital satisfaction of advanced prostate cancer survivors and their spousal caregivers: The dyadic effects of physical and mental health. *Psycho-Oncology*, 20(12), 1353-1357.
- Zhu, P., Fu, J.F., Wang, B., Lin, J., Wang, Y., Fang, N.N., Wang, D.D. (2014). Quality of life of male spouse caregivers for breast cancer patients in China. *Asian Pacific Journal of Cancer Prevention*, 15 (10), 4181-4185.