THE RELATIONSHIP BETWEEN INDIVIDUAL COPING, SOCIAL SUPPORT AND QUALITY OF LIFE OF ONCOLOGICAL PATIENTS: A SYSTEMATIC REVIEW OF THE LITERATURE

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Abstract: The severity of the consequences of the disease, but also the possible side effects of the treatment make cancer diagnosis one of the most difficult life experiences. Because according to the stress and coping model the relationship between the stressor and the consequences is mediated by the actions taken in response, the present research aims to study the relationship between active coping, avoiding coping, social support and quality of life of oncological patients. To this end, a literature review was conducted which included cross-sectional studies dedicated to oncology patients, published in peer-review journals in the PsycInfo and Medline databases between 2000-2018. The analyzed studies revealed the existence of a positive association between active coping, social support and the quality of global, emotional, physical, functional and social / family life. Also, the existence of a negative relationship between the avoidant coping and the quality of the emotional, physical, functional and social / family life of the oncological patients was highlighted. The conclusion of this paper argues for the need to define interventions aimed at developing active coping strategies and increasing social support for cancer patients.

Key words: cancer, patient, social support, coping, qualiy of life.

Introduction

Cancer is a serious life-threatening disease, patients experiencing physical consequences (pain, fatigue, sleep disturbance, loss of appetite), psychological (anxiety, depression), social but also spiritual (Cieślak 2013; Gavrilă-Ardelean, Gavrilă-Ardelean 2010). Besides, this diagnostic affects the mental health not only of the patient but also of the family members (Ştefănuţ, Vintilă 2019a; Gavrilă-Ardelean, Gavrilă-Ardelean 2017). Diagnosis with this disease is therefore one of the most severe stressors that one can face throughout life. With the reduction of mortality due to the improvement of the screening and the available treatments, the care in the oncological field considers not only the survival but also the improvement of the quality of life of the patients. Quality of life refers to the subjective perception of the well-being that results from the person's satisfaction or dissatisfaction regarding different aspects of life that are important to him (Ferrans 1990), and the quality of life associated with the health status refers to the extent to which the well-being physical, functional, emotional and social are affected by the disease or the associated treatment (Cella 1995). Thus, the quality of life has become one of the aspects of interest in psycho-oncological research and in understanding how it can be improved for oncological patients, one can consider the stress and coping model of Lazarus and Folkman (1984). According to this model, the stress response is mediated by the cognitive evaluation of the stressor and the coping strategies. The cognitive evaluation includes both the primary evaluation following which the stressor is included in one of the categories: the potential for harm / loss, threat, challenge and the secondary evaluation that considers what can be undertaken in the respective situation. As a result of this evaluation, the person uses the available internal and external resources (Lazarus, Launier 1978; Lazarus, Folkman 1984). The meta-analysis conducted by Ştefănuţ and Vintilă (2019b) emphasizes the importance of improving the patient's confidence in individual abilities to cope with the disease-related challenges and finds that interventions have a statistically significant positive effect.

Even though coping strategies have been conceptualized in different ways, their significance is similar and refers to accepting the stressor and trying to cope with it. This effort can be realized either in focusing on problem solving or in emotional coping (Carver, Scheier 1994). Problem-solving strategies include planning, engaging in confrontational tactics, seeking concrete help from others. Emotional coping refers to emotional adjustment and can be classified as active or avoidant emotional coping (Carver et al. 1993). Active emotional coping includes seeking emotional support from others, acceptance, humor. Avoiding emotional coping includes denial, lack of emotional or behavioral involvement. Active emotional coping is seen as adaptive (Folkman, Lazarus 1985), while avoidant emotional coping is generally seen as maladaptive (Dedert et al. 2012). However, there are also opinions that avoidant coping strategies are not always maladaptive and that the relationship between coping and psychological well-being can be influenced by the patient's situation and characteristics (Lazarus 2000).

Another resource available to the patient in coping with the disease is social support. This is defined as an exchange between a provider and a receiver, which one of them considers to improve the quality of life of the receiver (Shumaker, Brownell 1984). Sherbourne and Stewart (1991) refer to several types of social support: emotional / informational support, concrete support, affective support, positive social interactions. It has been demonstrated that social support can improve the capacity to face overwhelming events, becoming a protective factor for these situations (Tudorel & Vintila, 2018).

In view of the theoretical aspects set out, there was no delay in appearing to analyze the relationship between coping, social support and quality of life of oncological patients. Thus, Holland and Holohan (2003) found that in patients with early-stage breast cancer, active coping strategies are positively associated with psychological well-being and behaviors that promote health, whereas avoidant coping is negatively associated with psychological well being state. Other studies (Stanton et al. 2000, 2002) have shown that active acceptance and emotional processing predict a positive adjustment, while denial predicts negative consequences for breast cancer patients. In those regarding social support, there are studies that highlight the relationship between it and the quality of life: social support is a predictor of a better adjustment at the beginning of treatment and one month after treatment in patients with melanoma (Devine et al. 2003), and is positively related to the quality of life associated with health (Roberts, Lepore, Helgeson 2006). It has also been found that patients with melanoma who received higher social support had lower anxiety and depressive symptoms as well as improved quality of life (Söllner, Zschocke, Augustin 1998).

In the year 2013, a systematic literature review was conducted that investigated the relationship between coping, social support and the quality of life associated with health in prostate cancer patients (Paterson, Jones, Rattray, Lauder 2013). The studies analyzed predominantly reported a main effect of social support on the quality of life associated with health, and some of them analyzed the mediating effect of coping and social support. However, this review finds that at the time there was little empirical evidence on the subject.

In order to fill this gap in the literature, the present research aims to conduct a systematic review that will highlight the relationship between coping, social support and quality of life of oncological patients. The hypothesis considered is that there is a positive relationship between active coping, social support and the patients' quality of life as well as a negative relationship between avoiding coping and their quality of life. The analysis will be performed both for the overall quality of life and for its domains: emotional, physical, functional and social / family.

Methodology

Research methods for identifying the studies

Searching the articles included in the research was done in the databases PsycInfo and Medline by applying at the abstract level the following algorithm: (cancer or neoplasm or oncology) AND ('individual coping' or 'coping skills' or coping strategies 'or' coping mechanisms 'or' dyadic coping 'or' couple coping 'or' social support) AND (qol or quality of life or wellbeing or well-being).

Inclusion and exclusion criteria

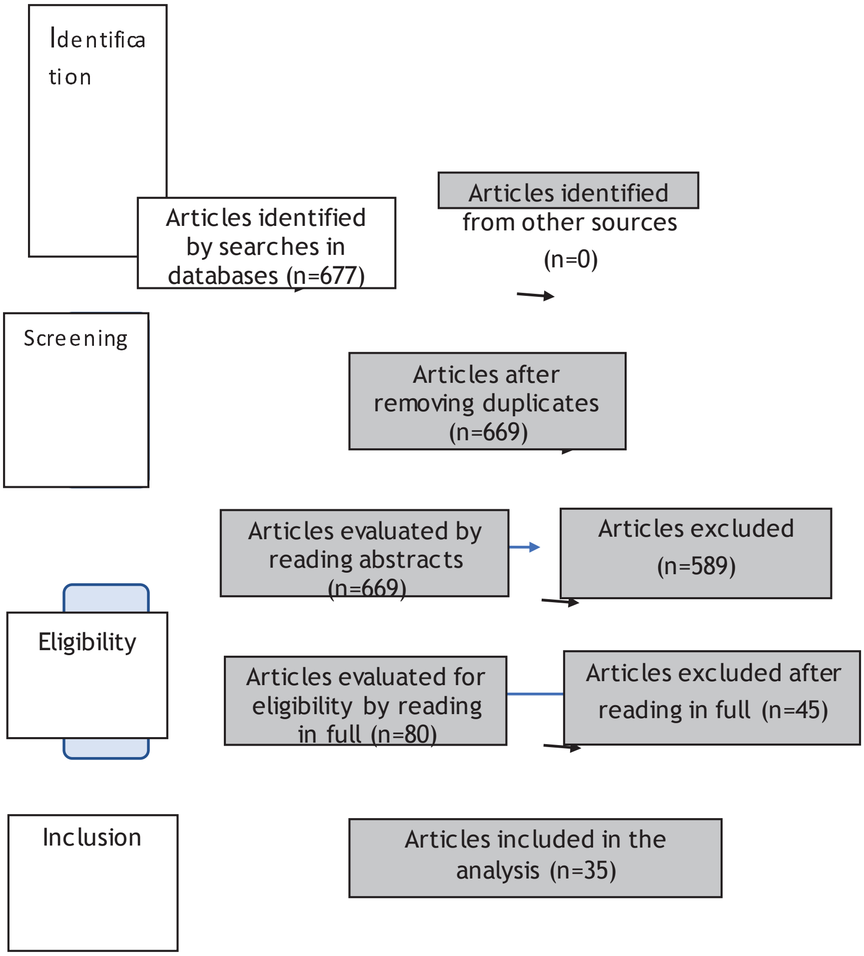
The works that met the following criteria were selected for inclusion in the review: cross-sectional studies aimed at the relationship between coping, social support and quality of life published in English in journals applying a peer-review process between 2000 and 2018. The subjects included in the studies had to be adult people diagnosed with cancer. Articles containing interventions, longitudinal studies or literature reviews were not included in the study.

The selection process

Following the application of the search algorithm, 677 articles were identified out of which 8 were found to be duplicates. By analyzing the abstracts of the remaining articles, 589 articles were removed. The remaining 80 studies were completed in full and 45 articles were eliminated based on the same criteria. Following this process, in the final analysis stage, 35 eligible articles were included.

The selection process is shown in *Figure 1.*

Figure 1.Selection process of studies



Data extraction

Following the final analysis applied to the eligible studies, the following data were extracted for each of them: the country in which the study was conducted, the number of patients included, the type of cancer diagnosed, the stage of the disease, information from the literature, the purpose of the study, the tools used for evaluation, results.

Results

The characteristics of the studies found

Of the total of 35 eligible studies, 15 (43%) were conducted in the USA (Wong, Lu 2017; Teo, Fingeret, Liu 2016; Hill, Watkins 2017; Friedman et al. 2006; Manne et al. 2015; Schreiber 2011; Constanzo, Lutgendorf, Rothrock, Anderson 2006; Kim et al. 2010; Agarwal, Hamilton, Crandell, Moore 2010; Sammarco, Konecny 2008; Lim, Yi, Zebrack 2008; Matthews, Cook 2009; Shelby et al. 2008; Mellon, Northouse, Weiss 2006; Kershaw et al. 2004). In Australia (Ownsworth et al. 2010; Green, Wells 2011; Dunn et al. 2011). In Australia (Ownsworth et al. 2010; Green, Wells 2011; Dunn et al. 2011) and Turkey (Bozo, Tathan, Yılmaz 2014; Pinar, Okdem, Buyukgonenc, Ayhan 2014; Filazoglu, Griva 2008) there were 3 studies (9%), in China (Liu et al. 2016; So et al. 2013), France (Brunault et al 2016; Nairn, Merluzzi 2003) and Malaysia (Ahadzadeh, Sharif 2018; Sharif, Khanekharab 2017) 2 studies (6%), in Canada (Queenan, Feldman-Stewart, Brundage, Groome 2010), Greece (Assimakopoulos et al. 2009), Nigeria (Asuzu, Elumelu 2013), Holland (van Laarhoven et al. 2011), Portugal (Pereira, Ponte, Ferreira, Machado 2017), Slovakia (Barinková, Mesárošová 2013), Thailand (Somjaivong, Thanasilp, Preechawong, Sloan 2011) and Taiwan (Huang, Hsu 2013) each 1 study (3 %).

The number of patients included in the studies ranged from 30 (Ownsworth et al. 2010) to 439(Dunn et al. 2011). In total, 3125 patients participated in these studies.

The types of cancer faced by those included in the studies were: breast - 15 studies (43%)(Ahadzadeh, Sharif 2018; Brunault et al. 2016; Wong, Lu 2017; Teo et al. 2016; Sharif, Khanekharab 2017; Bozo et al. 2014; Friedman et al. 2006; Huang, Hsu 2013; So et al. 2013; Schreiber 2011; Kim et al. 2010; Matthews, Cook 2009; Filazoglu, Griva 2008; Shelby et al. 2008; Kershaw et al. 2004), gynecology - 4 studies (12%) (Hill, Watkins 2017; Manne et al. 2015; Pinar et al. 2012; Constanzo et al. 2006), prostate - 2 studies (6%) (Green, Wells 2011; Queenan et al. 2010), head and neck - 1 study (3%) (Agarwal et al. 2010), brain- 1 study (3%) (Ownsworth et al. 2010), skin- 1 study (3%) (Pereira et al. 2017), bladder- 1 study (3%) (Liu et al. 2016), cholangiocarcinoma- 1 study (3%) (Somjaivong et al. 2011), breast or gynecological- 1 study (3%) (Lim et al. 2008), different types of cancers - 7 studies (20%) (Asuzu, Elumelu 2013; Assimakopoulos et al. 2009; Barinková, Mesárošová 2013; van Laarhoven et al. 2011; Dunn et al. 2011; Mellon et al. 2006; Nairn, Merluzzi 2003). One study (Sammarco, Konecny 2008) did not specify the cancer type of the included patients.

In 14 (40%) of the analyzed studies were included patients at any stage of the disease (Brunault et al. 2016; Wong, Lu 2017; Teo et al. 2016; Sharif, Khanekharab 2017; Hill, Watkins 2017; Bozo et al. 2014; Manne et al. 2015; So et al. 2013; Assimakopoulos et al. 2009; Barinková, Mesárošová 2013; Pinar et al. 2012; Kim et al. 2010; Matthews, Cook 2009; Filazoglu, Griva 2008), 2 studies (6%) included patients in advanced stage (Constanzo et al. 2006; Kershaw et al. 2004), 4 studies (11%) addressed the survivors (Agarwal et al. 2010; Sammarco, Konecny 2008; Lim et al. 2008; Mellon et al. 2006), one study (3%) included patients in stage 0-IIIA (Shelby et al. 2008) respectively I-III (Ahadzadeh, Sharif 2018). In 13 of the analyzed studies the stage of the disease was not specified (Asuzu, Elumelu 2013; Liu et al. 2016; Pereira et al. 2017; Friedman et al. 2006; Huang, Hsu 2013; van Laarhoven et al. 2011; Schreiber 2011; Ownsworth et al. 2010; Green, Wells 2011; Somjaivong et al. 2011; Queenan et al. 2010; Dunn et al. 2011; Nairn, Merluzzi 2003).

The relation between the individual coping and the patients' quality of life

Twenty-one of the studies included in the review referred to the relationship between individual coping and patients' quality of life (Ahadzadeh, Sharif 2018; Brunault et al. 2016; Teo et al. 2016, Sharif, Khanekharab 2017; Asuzu, Elumelu 2013; Manne et al. 2015; Assimakopoulos et al. 2009; Barinková, Mesárošová 2013; van Laarhoven et al. 2011; Schreiber 2011; Constanzo et al. 2006; Ownsworth et al. 2010; Kim et al. 2010; Agarwal et al. 2010; Green, Wells 2011; Somjaivong et al. 2011; Matthews, Cook 2009; Filazoglu, Griva 2008; Mellon et al. 2006; Kershaw et al. 2004; Nairn, Merluzzi 2003).

The relation between the active coping and the patients' quality of life

The relation between the active coping and the global quality of life

Regarding this relationship, it was highlighted that the general well-being of the oncological patients is positively associated with the emotionally active coping: $r = 0.233$, $p < 0.01$ (Ahadzadeh, Sharif 2018); $r = 0.246$, $p < 0.01$ (Sharif, Khanekharab 2017), with finding peace and significance: $r = 0.61$, $p < 0.001$ (Manne et al. 2015) or finding significance for the disease: $r = 0.42$, $p < 0.01$ (Mellon et al. 2006). There was also a positive relationship between the overall quality of life of patients and the positive expression of emotions: $r = 0.26$, $p < 0.001$ (Manne et al. 2015) or the application of problem solving strategies (Matthews, Cook 2009). Manne et al. (2015) point out that positive recurrence and general well-being are statistically significant positive: $r = 0.27$, $p < 0.001$ (Manne et al. 2015).

The relation between the active coping and the quality of life from the emotional point of view

Other studies have shown that the emotional well-being of cancer patients is positively associated with acceptance: $r = 0.53$, $p < 0.001$ (Brunault et al. 2016); $r = 0.36$, $p = 0.01$ (Teo et al. 2016) but also with the positive crop: $r = 0.34$, $p < 0.001$ (Kim et al. 2010). The religious coping and the optimistic coping of the patients is also positively correlated with the emotional well-being: $r = 0.399$, $p < 0.01$ respectively $r = 0.504$, $p < 0.05$ (Filazoglu, Griva 2008). The quality of emotional life is positively associated with the application of problem solving strategies $r = 0.475$, $p < 0.01$ (Filazoglu, Griva 2008)

The relation between the active coping and the quality of life from the physical point of view

It was determined that the physical well-being of the oncological patients also varies in the same sense with the variation of religious coping: $r = 0.455$, $p < 0.01$, of optimistic coping $r = 0.541$, $p < 0.01$ but also with coping based on resolution. of problems: $r = 0.503$, $p < 0.01$ (Filazoglu, Griva 2008).

The relation between the active coping and the quality of life from the functional point of view

It was also highlighted the fact that the active coping is associated with the well-being from the perspective of the patients functioning: $r = 0.208$, $p < 0.05$ (Ahadzadeh, Sharif 2018); $r = 0.249$, $p < 0.01$ (Sharif, Khanekharab 2017); $r = 0.144$, $p < 0.05$ (Asuzu, Elumelu 2013). The same functional well-being is positively correlated with the concrete support received from the others (Asuzu, Elumelu 2013), with the positive crop: $r = 0.26$, $p < 0.05$ (Constanzo et al. 2006) and with the application of problem solving strategies. $r = 0.230$, $p < 0.01$ (Sharif, Khanekharab 2017). Acceptance is in turn positively related to the quality of life in terms of functioning: $r = 0.31$, $p = 0.02$ (Teo et al. 2016); $r = 0.35$, $p < 0.01$ (Constanzo et al. 2006).

The relation between the active coping and the quality of life from the social/family point of view

The family / social quality of life is positively associated with active emotional coping: $r = 0.383$, $p < 0.01$ (Ahadzadeh, Sharif 2018);) $r = 0.422$, $p < 0.01$ (Sharif, Khanekharab 2017); $r = 0.147$, $p < 0.05$ (Asuzu, Elumelu 2013) with emotional support: $r = 0.32$, $p = 0.02$ (Teo et al. 2016); $r = 0.402$, $p < 0.01$ (Asuzu, Elumelu 2013) but also with the concrete support received by the patients: $r = 0.28$, $p = 0.04$ (Teo et al. 2016); $r = 0.372$, $p < 0.01$ (Asuzu, Elumelu 2013). This area of quality of life is also positively correlated with coping based on problem solving: $r = 0.412$, $p < 0.01$ (Sharif, Khanekharab 2017).

The relation between the avoidant coping and the patients' quality of life

The relation between the avoidant coping and the quality of life from the emotional point of view

Oncological patients' emotional well-being was shown to be negatively correlated with avoidant emotional coping: r = -0.229, p <0.05 (Ahadzadeh, Sharif 2018), r = 0.217, p <0.05 (Sharif, Khanekharab 2017); r = 038, p <0.001 (Green, Wells 2011). Behavioral disengagement is also a coping strategy that is negatively associated with the quality of life from an emotional point of view: r = -032, p <0.001 (Brunault et al. 2016); r = -0.232, p <0.01 (Asuzu, Elumelu 2013); r = -0.29, p = 0.04 (Teo et al. 2016); r = -0.26, p <0.05 (Constanzo et al. 2006). Teo et al. (2016) if Kim et al. (2010) show that self-blame leads to decreased emotional well-being (r = -0.54, p <0.01 respectively r = -0.49, p <0.001). There is also a deterioration of the quality of life from an emotional point of view when the mental disengagement is frequently used: r = -0.26, p <0.05 (Constanzo et al. 2006), denial: r = -0.40, p <0.001 (Brunault et al. 2016), r = -0.39, p <0.01 (Teo et al. 2016) or ventilation: r = -0.39, p <0.01 (Teo et al. 2016).

The relation between the avoidant coping and the quality of life from the physical point of view

The physical well-being is negatively associated with behavioral disengagement: r = -030, p <0.001 (Brunault et al. 2016); r = -0.223, p <0.01 (Asuzu, Elumelu 2013), self-distraction: r = 0.30, p = 0.03 (Teo et al. 2016) and with negation: r = -0.42, p <0.01 (Teo et al. 2016). Teo et al. (2016) and Asuzu and Elumelu (2013) find that ventilation is negatively associated with quality of life from a physical point of view (r = -0.34, p = 0.01 respectively r = -0.141, p <0.05. On the other hand Filazoglu and Griva (2008) show that helplessness is negatively related to physical well-being: r = -0.446, p <0.01.

The relation between the avoidant coping and the quality of life from the functional point of view

Teo et al. (2016) find that behavioral disengagement, denial, self-blame, and ventilation are in turn negatively associated with the oncology patients' well-being (r = -0.38, p = 0.01; r = -0.42, p <0.01; r = -0.30, p = 0.03; r = -0.31, p = 0.02).

The relation between the avoidant coping and the quality of life from the social/family point of view

Regarding the well-being in terms of family and social relations, according to Green and Wells (2011), it is negatively associated with avoidant coping (r = -0.027, p <0.05) and according to Teo et al. (2016) is negatively associated with behavioral disengagement, with denial and self-blame (r = -0.42, p <0.01; r = -0.45, p <0.01; r = -0.33, p = 0.02).

The relation between social support and the patients' quality of life

Twenty of the studies included in the analysis considered the relationship between social support and patients' quality of life (Wong, Lu 2017; Liu et al. 2016; Pereira et al. 2017; Hill, Watkins 2017; Bozo et al. 2014; Friedman et al. 2006; Huang, Hsu 2013; So et al. 2013; Pinar et al. 2012; Ownsworth et al. 2010; Kim et al. 2010; Sammarco, Konecny 2008; Lim et al. 2008; Somjaivong et al. 2011; Queenan et al. 2010; Dunn et al. 2011; Matthews, Cook 2009; Filazoglu, Griva 2008; Shelby et al. 2008; Mellon et al. 2006).

The relation between the social support and the global quality of life

Of these studies, half analyzed the relationship between social support and global quality of life, finding a positive association between them: $r = 0.319$, $p = 0.000$ (Liu et al. 2016); $rho = 0.24$, $p < 0.05$ (Pereira et al. 2017); $r = 0.449$, $p < 0.01$ (Huang, Hsu 2013); $r = 0.619$, $p < 0.001$ (Pinar et al. 2012); $r = 0.50$, $p < 0.01$ (Ownsworth et al. 2010); $r = 0.388$, $p < 0.001$ (Sammarco, Konecny 2008); $r = 0.49$, $p < 0.001$ (Lim et al. 2008); $r = 0.27$, 95% CI: 0.10, 0.44 (Queenan et al. 2010); $r = 0.251$, $p < 0.01$ (Somjaivong et al. 2011); $r = 0.42$, $p < 0.01$ (Mellon et al. 2006).

The relation between the social support and the quality of life from the emotional point of view

A positive correlation was also found between the social support and the emotional well-being of the oncological patients: $r = 0.438$, $p = 0.000$ (Liu et al. 2016); $r = 0.543$, $p < 0.01$ (Hill, Watkins 2017); $r = 0.20$, $p < 0.1$ (Friedman et al. 2006); $r = 0.472$, $p < 0.01$ (Huang, Hsu 2013); $r = 0.34$, $p < 0.001$ (Kim et al. 2010); $r = 0.274$, $p < 0.01$ (Sammarco, Konecny 2008); $r = 0.69$, $p < 0.001$ (Dunn et al. 2011); $r = 0.31$, $p < 0.01$ (Matthews, Cook 2009); $r = 0.649$, $p < 0.01$ (Filazoglu, Griva 2008); $r = .39$, $p < 0.05$ (Shelby et al. 2008).

The relation between the social support and the quality of life from the physical point of view

It was also determined the fact that the social support is positively associated with the patients' physical well-being: $r = 0.316$, $p = 0.000$ (Liu et al. 2016); $r = 0.362$, $p < 0.01$ (Huang, Hsu 2013); $r = 0.49$, $p < 0.001$ (Dunn et al. 2011); $r = 0.605$, $p < 0.01$ (Filazoglu, Griva 2008).

The relation between the social support and the quality of life from the functional point of view

Friedman et al. (2006) and Sammarco and Konecny (2008) highlighted for positive oncological patients a positive relationship between social support and functional well-being: $r = 0.25$, $p < 0.05$ respectively $r = 0.402$, $p < 0.001$.

The relation between the social support and the quality of life from the social/family point of view

For cancer patients, social support was positively associated with social / family well-being: r = 0.36, p = 0.000 (Liu et al. 2016); r = 0.60, p <0.01 (Friedman et al. 2006); r = 0.221, p <0.05 (Sammarco, Konecny 2008).

Discussions

The present research aims to investigate the relationship between individual coping, social support and quality of life of oncology patients. The results of the studies included in the review showed that active coping strategies are positively associated with the overall quality of life and its sub-domains - emotional, physical, functional, social / family. Also, the analyzed studies showed that avoidant coping strategies are negatively correlated with the quality of emotional, physical, functional, social / family life. In terms of social support, his perception is positively related to the overall quality of life and its sub-domains - emotional, physical, functional, social / family.

The results of the studies included in the analysis are consistent with those of other studies in the literature that affirm the existence of a positive relationship between social support and quality of life (Devine et al. 2003; Roberts, Lepore, Helgeson 2006) between active coping and quality of life and a relationship negatives between avoidant coping and quality of life (Holland, Holohan 2003; Stanton et al. 2000, 2002). They can be understood from the perspective of Lazarus and Folkman's (1984) stress and coping theory, according to which coping strategies are chosen according to the stressor's evaluation and action possibilities and mediate the relationship between stressor and consequences.

The analyzed studies suggest based on the obtained results aspects that can be integrated in future interventions. Thus Brunault et al. (2016) finds that the quality of life of oncology patients is more strongly associated with premorbid psychological characteristics and with how the individual copes with the disease than with the variables associated with cancer, therefore the need for psychological evaluation of patients and their support in developing coping adaptive modalities appears. In the case of patients presenting predominantly maladaptive coping strategies (denial, ventilation, self-blame), interventions are suggested to consider their modification and the development of more adaptive strategies (Teo et al. 2016). The encouragement of active coping strategies is also suggested by Asuzu and Elumelu (2013). For patients who have a place of external control, there is a need for early interventions to encourage them to resort to more active emotional coping (Sharif, Khanekharab 2017). It is also stressed the importance of recognizing the need to inform patients and sending them to trusted sources (Ahadzadeh, Sharif 2018). Barinková and Mesárošová (2013) support the need to recognize patients' anger where it exists and the need for intervention to reduce it. Education opportunities for families could increase the chance to understand how to manage it (Goian, 2004). However, specialists should use specialized language with caution, as this can create a barrier between the professional and the client, sharing or receiving meaningless messages (Goian, 2010).

Although the relationships highlighted are only some of the associations, the results obtained are relevant for clinical practice because modifying coping strategies and improving social support are issues that can be addressed in therapy. In order to obtain valid and robust results, future studies should also take into consideration to use a culturally adapted scales (Tudorel et al., 2018; Vintila et al., 2018).

However, it is necessary for further studies to consider programs that investigate a possible causal relationship between the variables considered. These could lead not only to improving the quality of life of patients but also to increasing tolerance and adherence to disease treatments (Cheville et al. 2015).

The limits of the research and future directions

The analysis performed referred to the social support perceived as a whole, without considering the relationship between the quality of life of the oncological patients and their different types: emotional / informational support, concrete support, affective support, positive social interactions. Also, the study does not consider the connection between the quality of life of the patients and the social support according to their origin (life partner, family, medical personnel, other persons in the person's social network), (Gavrilă-Ardelean 2008). Subsequent systematic reviews could study the relationship between patients 'quality of life and different subtypes of social support or the relationship between patients' quality of life and social support taking into account its source.

Fifteen of the 35 studies included in the research were conducted in the United States, and another ten were conducted in different countries with a western culture, so that other geographical and cultural areas were little or not represented in the analysis.

The analyzed studies applied different inclusion criteria (type of cancer, stage of the disease, time in the course of the disease course) which led to a good definition of the area of interest, but, at the same time, this affects the degree of generalize ability of the obtained results.

Only cross-sectional research was included in the analysis, which allows highlighting some association relationships, but in order to support the existence of causal relationships between different coping strategies, social support and the quality of life of oncological patients it is necessary to achieve studies that are based on interventions. Also, in order to analyze such causal relationships and the effectiveness of the interventions, a subsequent research may aim to conduct a systematic review and meta-analysis that will include experimental studies that aim to modify coping strategies and improve social support for quality improvement of the patients' lives.

Conclusion

This systematic review showed that there is a significant relationship between individual coping, social support and the quality of life of oncology patients. It has been found that there are several studies that show the connection between different types of coping and different areas of quality of life, but the literature on the association between different types of social support and quality of life is poorer. Thus, further research is needed to investigate the relationship between the types of social support and the emotional, physical, functional and social / family domains of well-being. The results support the definition of interventions to help oncology patients reduce the frequency of avoidance coping strategies and increase the frequency of active coping strategies. In addition, the increased support for these patients is also supported.

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