

EFFECTIVENESS OF PSYCHO-ONCOLOGICAL INTERVENTIONS IN INCREASING THE SELF-EFFICACY OF PATIENTS: A SYSTEMATIC REVIEW OF LITERATURE AND META-ANALYSIS

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Abstract The purpose of this meta-analysis is to evaluate the effectiveness of interventions aimed at improving the self-efficacy of cancer patients. Peer-reviewed articles included in the analysis were published between 2000 and 2018, and were selected from online databases. The keywords used for the search were self-efficacy, cancer, neoplasm, tumour, malignant, treatment, intervention, therapy. We selected the studies that meet the following conditions: (a) they had an experimental design; (b) the participants were patients diagnosed with cancer; (c) they aimed the testing of interventions focused on increasing patients' adaptation to disease; (d) they have been published in English and subjected to a peer-review process. Interventions to improve the self-efficacy of cancer patients have a statistically significant effect ($g = .43$, $Z = 3.304$, $p = .001$). The result shows the effectiveness of the interventions, but the heterogeneity of the data calls for caution in their consideration.

Keywords: patient, cancer, self-efficacy, meta-analysis

Introduction

Both the disease itself and the side-effects of the associated treatments lead to physical and psychological consequences that oncological patients must face. Self-efficacy, defined by Bandura as the extent to which a person has

confidence in his or her own ability to accomplish tasks and achieve certain goals (Bandura, 1977), may play an important role in managing these difficulties. He said that before gaining behaviours that promote health, people must think they have the ability to do so, therefore self-efficacy is a mediator for developing such behaviours. Studies have shown that perceived self-efficacy does not change over time without interventions, but patient self-management behaviours improve when self-efficacy is considered (Beck, Lund, 1981 apud Lev et al., 2001). Therefore, in an oncological context, self-efficacy can be conceptualised as the patient's confidence in individual abilities to cope with the great disease-related challenges.

It has been shown that in patients diagnosed with cancer, self-efficacy is associated with a lower level of anxiety, distress (Hirai et al., 2002) and depression (Porter, Keefe, Garst, McBride, Baucom, 2008), and a higher level of quality of life (Campbell, Keefe, McKee, 2004). Also, according to Keefe, Ahles, Porter (2003), a high self-efficacy correlates with a lower level of pain.

Studies conducted in recent years have shown that cancer diagnosis affects not only the patient but also his or her family, caregivers often having to face physical and psychological difficulties (Gavrila-Ardelean, 2009). In this context, the patient's self-efficacy is correlated with a later higher level of physical health of the caregivers (Kershaw et al., 2015).

As a result of these findings and the fact that in many Western countries, in the past years, it has become a priority to activate patients and turn them into partners in their own care (Sarrami-Foroushani, Travaglia, Debono, Braithwaite, 2014), interest in this concept and in the practical ways in which patients' self-efficacy can be increased has intensified. As a result, researchers have focused their attention on developing interventions to improve the self-efficacy of cancer patients. Empirical studies have analysed the impact of various interventions dedicated to oncological patients, including psycho-educational programs, behavioural management or relaxation programs, individual or couples counselling. These interventions have been useful in increasing the self-efficacy of the participants, but, to the knowledge of the authors, there is no overall analysis of the existing outcomes. The present paper is the beginning of a large size upcoming research on the topic in Romania, a former socialist country, where despite recent social and political changes, it has been suggested that cultural norms and traditions have not changed at the same pace (Swami et al., 2018 apud Gavreliuc, 2012), and attitude towards health problems is just now in a continuous change as is health policy (Gavrila-Ardelean, Gavrilă-Ardelean, 2010).

The current study aims to cover this gap existing in the literature, and for this a systematic review of the literature and a meta-analysis of randomised controlled trials aimed at increasing the self-efficacy of cancer patients have

been conducted. The objectives of this research are: a) to summarise the results obtained in interventions dedicated to oncological patients aimed at improving self-efficacy, b) to estimate the effect of these interventions on the self-efficacy of the patients, and c) to explore the potential moderating effect of some characteristics of the interventions.

The research hypothesis that we wanted to verify is:

I: as a result of participating in interventions aimed at increasing the self-efficacy of oncological patients, the magnitude of the effect in the intervention groups is higher than the magnitude of the effect observed in the control groups.

Methodology

Search Strategies

In order to obtain relevant studies, searches were carried out in the PsycInfo and Medline databases. The articles that resulted from the use of the keywords: “self-efficacy” AND “cancer OR cancer OR neoplasms OR oncology OR tumour or malignancy” AND “treatment or intervention or therapy” and which were published between 2000 and 2018 were retained. As a result of these searches, 90 studies were retained, and 3 other articles of interest were subsequently identified.

Inclusion Criteria

To be eligible, studies had to meet the following criteria: they must be published between 2000 and 2018 in English in journals using a peer-review process. Studies should have an experimental design, include at least one intervention group and one control group, and the participants must undergo a random distribution procedure. The interventions should address oncological patients and aim to improve their adaptation to their disease.

Selection Process

In the first stage, the studies were analysed by reading the abstracts, and following this analysis 79 were eliminated. The remaining 14 articles were read in full, of which 10 articles were retained and included in the final analysis. The selection process is illustrated in *Figure 1*.

Data Extraction

From the eligible articles, we extracted the data necessary for the statistical analysis (means, standard deviations and number of participants) and the information on the characteristics of the study: type of cancer, average age of the participants, percentage of male participants, type of comparison, type of control group, description of intervention, results obtained, duration and type of intervention, number of sessions, delivery form, type of intervener.

Statistical Analysis

For all statistical analyses, the Comprehensive Meta-Analysis version 3.3 (Borenstein, Hedges, Higgins, & Rothstein, 2013) was used. The magnitude of the effect was reported using the Hedges g index (Hedges, 1981). It is defined as the difference between the mean of the experimental group and the mean of the control group divided by the pooled and weighted standard deviation, and is recommended to be used for samples smaller than 20. Due to the variations in the characteristics of the eligible studies (participants with different types of cancer, different stages of disease, interventions of different magnitudes, different deliveries, different types of interveners), the meta-analysis of random effects was used, assuming a random variation of the “true” magnitude of effect from one study to another.

The heterogeneity between studies was evaluated using the I^2 index that ranges from 0% to 100%, and represents the percentage of the observed dispersion that indicates actual differences between the effect magnitude indicator values, not just random variations. The values of 25%, 50%, and 75% correspond to “low”, “medium” and “high”, respectively (Higgins, Thompson, Deeks, Altman, 2003).

On the detected outliers, the Winsorising method was applied, and the analysis was performed again including outlier studies, but Winsorising their results. The Winsorisation method involves recoding the extreme values using the last non-extreme value in the category of membership (Lipsey, Wilson, 2001).

In order to understand the variations of the observed effect, secondary analyses were performed. Thus, the moderating effect of the number of sessions included in the intervention, the type of intervention (couples or individual), and the percentage of male participants included in the study was investigated. For this, meta-regressions of random effects as recommended by Borenstein et al. (2015) were used.

The existence of possible distortions of publication has also been examined. For this purpose, the *funnel plot*, the *fail-safe N*, and the *trim and fill* techniques were used. The funnel plot technique refers to the graphic representation of studies through a cloud of points in the form of an inverted funnel. If there is a high risk of distortion, this cloud of points does not have a symmetrical appearance (Sava 2013). The fail-safe N technique identifies the number of studies required to turn an observed effect into one with no particular practical relevance, even if the effect taken as a reference is not null (Rosenthal apud Sava 2013). The trim and fill method starts from the funnel plot, and tries to add or remove studies so as to obtain a symmetrical graph (Duval, Tweedie, 2000 apud Sava 2013).

Systematic Literature Review Results

Characteristics of the Participants

The total number of participants was 1065, with significant variations between studies, from 30 patients (Weber et al., 2004) to 263 (Northouse et al., 2007). Four of the researches included more than 100 people (Northouse et al., 2007; Chen, Liu, You, 2017; Giesler, 2017; Zhang, 2014). The mean age of those included was 57.3, ranging from an average of 50 (Lev et al., 2001) to 63.7 (Lambert et al., 2016). In the studies involving only female patients, the average age was 50, and in the studies involving only male patients the average age was 61.1.

The type of cancer with which the participants were diagnosed was varied. In four studies (Weber et al., 2007; Weber et al., 2007; Northouse et al., 2007; Lambert et al., 2016), patients were diagnosed with prostate cancer, in three of the studies (Giesler et al., 2017; Zhang et al., 2014; Lee et al., 2006) patients were diagnosed with colorectal cancer. Chen et al. (2017) included lung cancer patients, and Lev et al. (2001) included patients with breast cancer. Porter et al. (2017) included patients with different types of diagnoses (colorectal, pancreatic, oesophageal or other type of cancer).

Design Characteristics

Four of the studies included in the analysis (Zhang et al., 2014, Weber et al., 2004, Lev et al., 2001, Weber et al., 2007) base their intervention on Bandura's theory of self-efficacy, namely on its predictors: mastery, vicarious experience, verbal persuasion, and arousal state. Three other studies (Chen et al., 2017; Northouse et al., 2007; Lambert et al., 2016) are based on the dyad coping model, with an emphasis on treating the disease as a patient and partner team coordinating efforts to address the challenges of the disease. Northouse et al. (2007) supports his intervention on an adapted model of stress and coping after Lazarus and Folkman. The search for meaning, based on the theory of cognitive adaptation, the life scheme framework, and the transactional model of stress and coping, justifies the foundation of the intervention proposed by Lee et al. (2006). The analysis also included a study that does not have an explicit theoretical foundation for the proposed intervention (Giesler et al., 2017).

Four of the studies examined included interventions dedicated to patient-partner couples (Chen et al., 2017; Northouse et al., 2007; Lambert et al., 2016; Porter, 2017). The other six contained individual patient interventions.

The number of interventions sessions ranges from 0 (self-help intervention) (Giesler et al., 2017) to 8 (Weber et al., 2004; Weber et al., 2007).

With regard to the way in which interventions are carried out, we also find a variety of approaches. Thus, in four of the studies, interventions are

performed face-to-face (Chen et al., 2017, Lee et al., 2006; Weber et al., 2004; Weber et al., 2007), in one study the intervention is carried out by videoconference (Porter et al., 2017), and another study does not include actual intervention sessions, being based on self-help (Giesler et al., 2017). Four researches call for mixed approaches to support interventions: face-to-face, by telephone and self-help (Zhang et al., 2014), face-to-face and self-help (Lev et al., 2001), face-to-face and by telephone (Northouse et al., 2007), and by telephone and self-help (Lambert et al., 2016).

A synthesis of the collected data is found in *Table 1*.

Table 1. Description of studies included in the meta-analysis

Study ID	Cancer type	No. of participants Average age % Men	Intervention Delivery form Intervener	No. of sessions Session duration	Intervention description
Chen 2017, China	lung	No.: 132 M age: 60.1 %M: 66.7	Couples Face-to-face Nurses	No.: 3 Duration: NS	IG: Couple Based Coping Intervention: has a content similar to individual intervention, but only addresses the couple; partners are asked to participate in the intervention, spend at least 3 hours a day with the patient, and accompany him or her for a walk for at least half an hour daily, understand the psychological changes the patient goes through, and encourage him or her to adopt an active coping style; CG: Individual Coping Intervention: includes cognitive intervention (information on surgery, chemotherapy and postoperative radiotherapy, about possible complications, nutrition and most common eating problems after the intervention), behavioural intervention (taking the medication as

Giesler 2017, Germany	colorectal	No.: 212 M age: 54.1 %M: 41.2	Individual Self-help Self- management	No.: 0 Duration: NS	prescribed, correct habits related to sleep and exercise), and psychological intervention (how to adopt an active coping style, identifying and debating negative cognitions about cancer, managing treatment concerns) IG: For 2 weeks, patients are given access to a website that provides information from men and women who have dealt with colorectal cancer; the information can be accessed either based on subject or people interviews (in which case criteria such as age, gender are used to facilitate the search); CG: waiting list type; after 6 weeks of random distribution, the patient receives access to the same website
Zhang 2014, China	colorectal	No.: 152 M age: 53 %M: 35.5	Individual Face-to-face+ by telephone+ self-help Nurse+ self- management	No.: 5 Duration: 3h	IG: complex intervention; the first face-to-face session is educational, identifies the need for self-management of individual symptoms and the possible strategies (e.g., for nausea and vomiting: medication, nutrition, hydration); the possibility of complementary treatments such as acupuncture or tea drinking; 4 coaching sessions by telephone include discussions about symptom distress, adherence to chemotherapy, and

					self-management strategies; patients received audio recordings with relaxation exercises (deep breathing and muscle relaxation) as well as a brochure with educational information on the common problems encountered by patients; CG: 30 min of education on chemotherapy and its side effects
Lee 2006, Canada	colorectal	No.: 74 M age: 57 %M: 19	Individual Face-to-face PhD. student	No.: 4 Duration: 8h	IG: intervention based on the search for meaning; includes: exploration of the present, contemplation of the past, and commitment to the present for the future; CG: usual care; does not include in this case psychological support in the care framework; participants are allowed to resort to external psychological support
Weber 2004, USA	prostate	No.: 30 M age: 58 %M: 100	Individual Face-to-face Survivors	No.: 8 Duration: NS	IG: Support provided by long-term survivors (> 3 years) of prostate cancer; each dyad decides its own direction and focus; the topics addressed relate to the common physical and emotional problems that prostate cancer patients face after total prostatectomy; partners providing support write weekly notes on the duration, quality and focus of the meetings; CG: standard care
Lev 2001, USA	breast	No.: 56 M age: 50 %M: 0	Individual Face-to-face	No.: 5 Duration: NS	IG: The participants watch a 5-minute videotape containing 3

			+ self-help		interviews with survivors of breast cancer; they receive a brochure that incorporates elements of the social cognitive model; they attend 5 monthly meetings; CG: Participants receive information about treatment, possible side effects, and about medicines available for their control
			Nurses+ self-managed		
Weber 2007, USA	prostate	No.: 72 M age: 60 %M: 100	Individual Face-to-face Survivors	No.: 8 Duration: NS	IG: Support provided by long-term survivors (> 3 years) of prostate cancer; each dyad decides its own direction and focus; the topics addressed relate to the common physical and emotional problems that prostate cancer patients face after total prostatectomy; partners providing support write weekly notes on the duration, quality and focus of the meetings; CG: standard care
Porter 2017, USA	colorectal, pancreatic, oesophagus, other	No.: 32 M age: 54.7 %M: 68.8	Couples Videoconference Social workers with Masters studies	No.: 6 Duration: 6h	IG: focuses on the participants (patients and partners) learning two communication skills: mutual sharing of thoughts and emotions related to the cancer experience, and decision-making on disease-related problems; CG: health information (fatigue, sleep disturbance, nutrition, physical activity, survival planning, palliative care)
Northouse 2007, USA	prostate	No.: 263 M age: 63 %M: 100	Couples Face-to-face	No.: 5 Duration: 5.5h	IG: the FOCUS program – family intervention. F =

			+ by telephone			family involvement – encourages the couple to work as a team, to communicate openly about the disease, and to provide mutual support. O = optimistic attitude – aims to maintain hope and focus on short-term goals that can be achieved. C = coping effectiveness – emphasises stress reduction techniques, active coping strategies, healthy lifestyle behaviours. U = uncertainty reduction – teaches couples how to obtain information, and how to live with uncertainty. S = symptom management – includes self-care strategies to manage the symptoms experienced by both partners. The program has a basic general part, and a content that addresses the needs of the couple in the three phases of prostate cancer. CG: usual care – some centres had support groups while others did not; medical treatment.
Lambert 2016, Australia	prostate	No.: 42 M age: 63.7 %M: 100	Nurses with Masters studies	Couples By telephone+ self-help Research assistants + self-managed	No.: 3 Duration: 1h	IG: couples in this group were given 4 bundles containing information on individual or dyad ways of coping: managing symptoms, communicating effectively with the medical team, supporting the partner, managing emotions and worries. They were asked to go

through the materials they received over the next two months, and to further study those that were of interest to them. Couples were also given a CD and a DVD containing relaxation exercises and role-playing games illustrating specific coping abilities. Couples have used these materials at their pace during the two months. There were 3 follow-up telephone calls. CG: Minimal ethical care – couples in this group have been given information about available resources.

Legend: IG – intervention group; CG – control group; NS – not specified

Results of the Meta-Analysis

The hypothesis of the meta-analytical study predicts that the level of self-efficacy of the oncological patients is higher in the intervention groups than in the control groups. As a result of the statistical analysis, it was found that the result of the meta-analysis is statistically significant ($g = 0.6$, $Z = 1.99$, $p < .05$), with a mean effect magnitude.

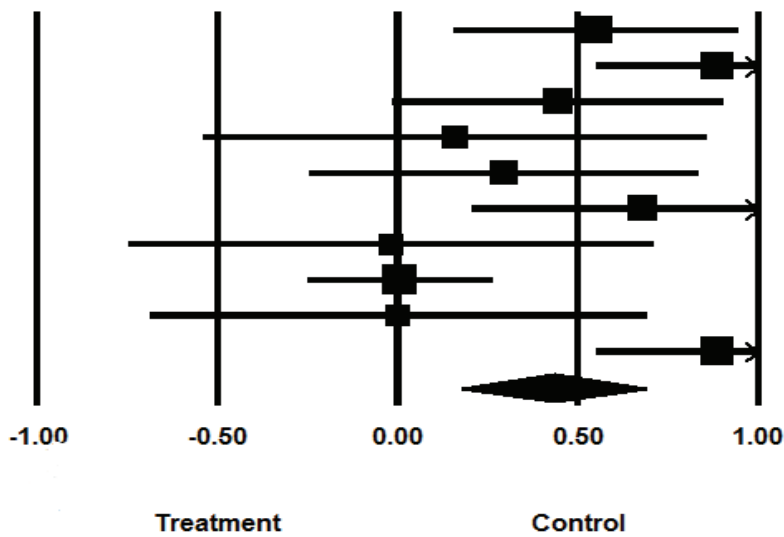
After examining data to detect extreme values, it was shown that a study (Giesler, 2017) contains results that qualify it as outlier (the magnitude of the effect exceeds the value of the sum of the 3rd quartile and the interquartile interval multiplied by 1.5). For this extreme result, the Winsorising method was applied, following which the meta-analysis was performed again. It was found that this time, too, the result is statistically significant ($g = .43$, $Z = 3.304$, $p = .001$), with a low to medium effect magnitude. In addition, a lower heterogeneity of the effects ($Q = 30.202$, $p = 0.0$) compared to the first analysis ($Q = 161.525$, $p = 0.0$) was observed in this case. Therefore, it can be said that the results support the research hypothesis.

Table 2 – Graphical description of studies included in the meta-analysis

Study	g	Lower limit	Upper limit	Hedges' g and 95% CI
Chen (2017)	0.550	-0.157	0.943	
Zhang (2014)	0.884	0.552	1.215	
Lee (2006)	0.445	-0.013	0.902	
Weber (2004)	0.159	-0.538	0.857	
Lev (2001)	0.294	-0.243	0.830	
Weber (2007)	0.678	0.207	1.148	
Porter (2017)	-0.02	-0.747	0.707	
Northouse(2007)	0.005	-0.250	0.260	
Lambert (2016)	0.000	-0.688	0.688	
Giesler_w (2017)	0.884	0.552	1.215	

Winsorised

Legend:
Giesler_w-



Winsorised data were considered for subsequent analyses. The heterogeneity of effects was assessed using the Q test and the I index. Because the result of the Q test is statistically significant ($Q = 30.202, p = 0.0$), we

conclude that there is a strong variation in the magnitude of the effect from one study to the other. Taking into account the high value of I^2 , ($I^2 = 70.2$), it results that this heterogeneous effect is explained not only by sampling errors, but is largely due to variations in the characteristics of the studies.

Table 3.
Meta-analysis results: The effect of interventions in increasing the self-efficacy of oncological patients

	<i>k</i>	<i>G</i>	<i>SE</i>	<i>Min</i> <i>g</i>	<i>Max</i> <i>g</i>	<i>Z</i>	<i>p</i>	<i>Q</i>	<i>I</i> ²
Effect of interventions with outliner	10	.6	.3	.01	1.19	1.99	.04	Q (9) = 161.52, n = .00	94.428
Effect of interventions with Winsorised outliner (*)	10	.43	.13	.17	.68	3.3	.001	Q (9) = 30.20, p = .00	70.20

Legend: *k* – number of indicators of effect magnitude included in the analysis (number of independent studies analysed); *g* – effect magnitude; *SE* – standard deviation associated with effect magnitude; *Min/Max g* – confidence interval minimum or maximum limits; *Z* – statistical test used to calculate the significance of the effect magnitude mean; *p* – significance threshold; *Q* – indicator of study heterogeneity; I^2 – percentage of the dispersion of studies due to factors other than sampling errors.

(*) Winsorised Giesler

Furthermore, secondary analyses were performed to explain the observed effect variations. Thus, we investigated the moderating effect of: a) the number of sessions included in the intervention; b) the type of intervention (couples or individual); and c) the percentage of male participants included in the study. Applied meta-regressions, however, showed that none of the variables considered have a moderating effect.

Because the distortion of publication may influence any systematic review (Borenstein et al., 2009), this aspect was also analysed. The *funnel plot* method indicates that there would be an asymmetric distribution around the mean effect magnitude, suggesting that there could be eligible studies not included in the analysis (*Figure 2*). However, the *fail-safe N* identified is 89, which means a low risk of distortion compared to the number of studies included (10). In addition, applying the *Trim and fill* method resulted in a number of 0 studies that should be removed or added.

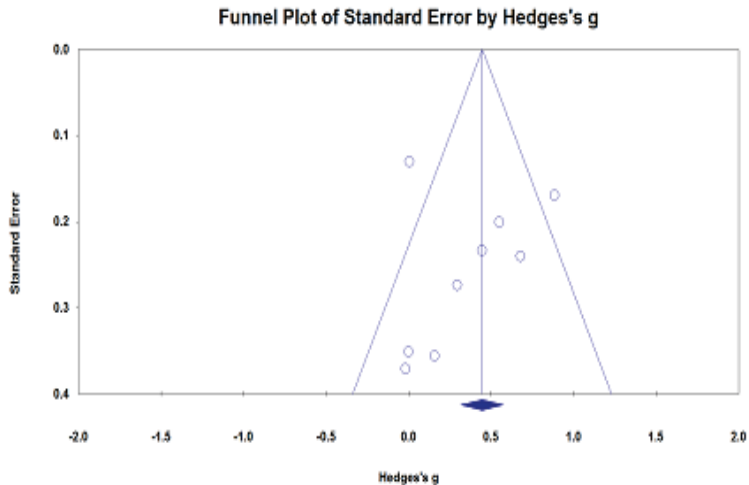


Figure 2. Graphical representation of publishing distortion analysis

Following these statistical analyses, we can state that the research hypothesis is supported. Intervention programs aimed at increasing the self-efficacy of oncological patients are effective, the effect obtained having a low to medium statistically significance, but these results should be viewed with caution given the heterogeneity of inter-studies as well as a possible distortion of publication.

Discussions

To the best of the authors' knowledge, this is the first meta-analysis to systematically evaluate the effectiveness of interventions to improve the self-efficacy of cancer patients. The research included 10 experimental studies aiming at a better adaptation of oncological patients to the disease, and examining the effectiveness of the interventions.

As a result of the analyses, it has been found that the results obtained support the research hypothesis, suggesting that interventions aimed at the self-efficacy of oncological patients are effective. Given the magnitude of the effect of psychological and behavioural interventions ranging between 0.30 and 0.50 (Lipsey, Wilson, 2001), the magnitude of the effect highlighted by the analyses is placed midway, which is encouraging. However, the high heterogeneity of the results urges caution. It can be explained by the small number of studies included in the analysis (due to the fact that the literature does not give an overview of the subject), but also by the different handling of variables. It should be noted, however, that the magnitude of the effect reported in this study is consistent with the magnitude of the effects obtained in other meta-analyses addressing the effectiveness of interventions for other aspects of disease adaptation of oncological patients (Badr, Krebs, 2012).

This research has a number of strengths: clear inclusion/exclusion criteria, recommended meta-analytical techniques that take into account heterogeneity and outliers, and meta-regressions to detect moderators were used. It also highlights the advantage of a meta-analytical study that combines the results of several studies that, even if individually do not meet the statistical power criterion, when analysed together they result in a more reliable effect size.

Regarding the quality of the analysed studies, two indicators referring to this aspect were highlighted. Thus, it was found that most of the studies (90%) based their interventions on a theoretical ground, and that most of them (70%) included procedures to verify the fidelity and integrity of the interventions (intervention protocols, audio recording of sessions, written recordings).

The interventions included in the analysis were varied: psycho-educational, to improve abilities, and counselling. Although there were couple interventions that also involved relational issues, most programs were designed to reduce the psychological difficulties faced by the patient. 40% of them were carried out in face-to-face sessions, 30% had other interventions (by telephone or self-help) in addition to face-to-face sessions, and 20% turned to other means (by telephone, self-help). A high variation was registered both in terms of the number of sessions included in the interventions and in terms of their duration. Another non-homogeneous aspect of the applied methodology is also observed in the control groups used. What is referred to as “standard care” actually shows a high variability from one care centre to another.

The practical implications of the results obtained also deserve attention, given the mediating character of self-efficacy for engaging in self-care behaviours and supporting health (Bandura, 1977). From this perspective, future psycho-oncological interventions may consider including the improvement of self-efficacy of cancer patients to increase adherence to treatment.

Limits of research

The first limit to be mentioned refers to the fact that only studies published in English in peer-reviewed journals were included in the analysis. Thus, dissertations, unpublished studies, and the proceedings associated with different conferences were not included. In this way, a high quality of the eligible researches was ensured, but at the same time a distortion of the magnitude of the effect could have been introduced due to not taking these materials into consideration. However, as we have already mentioned, the magnitude of the effect resulting from statistical analyses is comparable to the magnitude of the effect observed in similar researches.

Another limit of the present study is the small number of eligible studies found and included in the analysis. This may be due to the strict inclusion criteria used, but also to the existence of a relatively limited literature on interventions aimed at increasing the self-efficacy of oncological patients.

It should also be noted that the studies considered did not provide data whose analysis leads to a conclusion on the persistence over time of the effects of the interventions as well.

Future Research Directions

The results obtained from this meta-analysis lead to the following research directions.

Considering recent studies showing that caregivers, and in particular life partners, face severe psychological consequences following a cancer diagnosis in the family, and taking into account the dyad coping model, future research might aim to develop programs to improve the self-efficacy at dyad level. Moreover, in order to obtain valid and robust results, studies should take into consideration to use a validated and culturally adapted instruments (Tudorel et al., 2018; Vintila et al., 2018).

Given the high variability in the number and duration of sessions included in existing interventions, further studies could aim to carry out cost/benefit analyses to determine the optimal number of sessions and their duration for increasing the self-efficacy of patients.

Also, in view of the barriers that prevent oncological patients from participating in such interventions during treatment (geographical distance, social stigma, functional impairment), diversification of the delivery modalities (by telephone, videoconference, internet) can be considered in the future.

In addition, interventions aimed at increasing the self-efficacy of cancer patients could be developed taking into account different patient specificities such as the stage of the disease or impairment level.

Conclusions

The result of this meta-analysis indicates that interventions dedicated to oncological patients aimed at increasing their self-efficacy have achieved positive results with clinical implications of a real interest. It is therefore important that they are known, and included in clinical practice.

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