



Dyadic psychosocial interventions for patients with cancer and their caregivers: an update

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Purpose of review

Cancer causes significant impacts on patients and their caregivers. Cancer is also associated with multiple physical and emotional challenges for the patient-caregiver dyad. This patient-caregiver dyad should be considered as a unit of care by healthcare providers and supported through dedicated psychological interventions.

Recent findings

Twelve studies that tested dyadic interventions aiming to support patient-caregiver dyads were identified from the period April 2020 to December 2021. Studies were predominantly randomized controlled trials (RCTs) and single-arm pilot studies. Half of the interventions were online. Interventions were mostly focused on dyadic adjustment and appeared to be acceptable, feasible and globally effective. However, effects were evident predominantly on individual rather than dyadic outcomes. The interventions targeted either individual psychological outcomes, such as depression and anxiety, and are reported to be effective or various individual outcomes and also appeared to be effective. However, there was a large heterogeneity in quality and sample sizes across all intervention types.

Summary

Dyadic psychological interventions may be an effective support for patient-caregiver dyads dealing with multiple physical and emotional challenges. Online interventions and the variability of intervention types may respond to dyads specific needs, but though need to be rigorously evaluated through powered RCTs.

Keywords

caregiver, couples, dyadic, intervention, patient

INTRODUCTION

The WHO reports that the number of new cancer cases diagnosed worldwide reached 19.3 million in 2020, with also 10.0 million deaths [1]. Cancer thus appears as a major societal burden with a large number of people involved in its management, including patients, their caregivers and healthcare providers. It is well known that the diagnosis and the treatment of cancer cause significant physical and psychosocial impacts on patients and their caregivers, decreasing general quality of life [2–5]. In order to care for patients, caregivers engage in various types of support, including both emotional and practical support [6]. Challenges associated with this role often lead to the development of caregiver-related strain and burden [7]. Thus, in the course of cancer journey, patients and caregivers engage in a unique bidirectional supportive relationship attempting to buffer these negative effects [8].

In the past three decades, literature has provided multiple models of how patient-caregiver dyads cope with cancer-related stress [9–12]. These models

emphasize that coping responses to cancer-related stress are not only individual, but also dyadic. Literature has highlighted that responsiveness, and self-disclosure [13], active engagement, reciprocal supportive attitudes, open communication and adequate caregiver involvement [11,14] enhance individual and dyadic adjustment to cancer and its consequences.

However, patient-caregiver dyads may have some difficulties in adequately coping with the illness. Considering the dyadic challenges, the patient-caregiver dyad should be considered as a unit of care and supported through dyadic

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KEY POINTS

- Half of the studies are randomized controlled trials, but only half of them are efficacy trials.
- Dyads globally report dyadic interventions as acceptable and feasible, and positive results on measured outcomes.
- Half of the studies report positive results from online interventions, suggesting that patient-caregiver dyads may be remotely supported.
- There is a large heterogeneity in quality of designs and sample sizes making generalizability difficult.
- Researchers need to conduct RCTs and add initially screening of participants for relevant variables as an eligibility criterion.

interventions. Recent literature has shown that interventions delivered individually to patients [15] and caregivers [16] are necessary and mostly effective. Reviews and meta-analyses also highlight that dyadic psychological interventions may be effective in increasing quality of life, communication satisfaction and openness, improving dyadic coping and reducing emotional distress [17–19]. However, there is a substantial heterogeneity of theoretical frameworks, designs, populations, diseases and interventions objectives, making generalizability difficult.

The current review aims to identify recent literature (published in 2020–2021) about psychosocial interventions for patient-caregiver dyads and provide an update to existing reviews of studies published before that time [19].

MATERIALS AND METHODS

Relevant literature was identified via PubMed, EMBASE and PsycINFO. The literature search was focused on peer-reviewed articles in English language published between April 2020 and December 2021. Studies that focused on psychosocial interventions for adults, diagnosed with any type of cancer, and their caregivers (informal caregivers, family caregivers, spouses) were included. No restriction was made to studies designs, interventions objectives or measured outcomes. This literature search used keywords or MESH terms as follows: ‘cancer’, ‘patient’, ‘caregiver’, ‘spouse’, ‘patient-caregiver’, ‘dyadic’, ‘psychological’, ‘psychosocial’, ‘intervention’. These terms were chosen the most likely to capture the target concepts and give as many results as possible on the basis of the titles, abstracts and contents of published research.

Data were extracted regarding the number of enrolled dyads, study design, intervention main objectives, measured outcomes, population, intervention delivery methods and main findings (Table 1).

FINDINGS

Twelve studies were identified that evaluated the impact of dyadic interventions on various outcomes. Studies evaluated 11 different interventions; two studies evaluated the same intervention [20,21]. Studies were mostly randomized trials ($n=6$) [22–24,25[■],26,27[■]], but only three were efficacy trials [22,25[■],27[■]]. Studies also included single-arm pilot studies ($n=5$) [20,21,28–30], and a nonrandomized two-arm pilot study ($n=1$) [31]. Studies were conducted predominantly in the USA [22,24,26–30], three in Canada [20,21,25[■]], one in Turkey [31] and one in Belgium [23].

In terms of population, five studies focused their interventions on patients and their spouses [22,24–26,31] and one on patients and a family caregiver who could be a spouse, parent, an adult child or a sibling [28]. Three studies included patients diagnosed with any type of cancer [23,27[■],28], three focused on patients with breast cancer [22,25[■],31], two on prostate cancer [20,21], and one each on lung [24], brain [29] and head and neck [26] cancer.

More than half of the studies ($n=7$) reported on feasibility and/or acceptability outcomes of these interventions with positive results. It should also be noticed that seven studies reported results from online interventions [20,21,22,24,25[■],27[■],31]. These interventions included self-directed web-based interventions (e.g. prerecorded videos) [20,21,22,25[■],31] and interventions delivered by therapists through videoconferences [24,27[■]].

RELATIONSHIP ADJUSTMENT

Half of the included studies ($n=6$) evaluated interventions targeting dyadic outcomes as primary outcomes [23,25[■],26,28–30]. More precisely, three interventions were specifically focused on dyadic communication [23,26,29], one on dyadic adjustment [25[■]], and two on various dyadic outcomes [28,30].

First, interventions targeting dyadic communication focused their content on providing guidelines on supportive communication, providing tailored-discussion with dyads about key cancer-related communication challenges, and in-session communication exercises to practice and received feedback on implementation of communication skills. They were evaluated through two pilot RCTs

Table 1. Characteristics of the included studies

Ref.	Enrolled dyads	Design	Intervention	Measured outcomes	Population	Delivered by, medium	Main findings
Relationship adjustment							
Titler <i>et al.</i> [28]	36	Single-arm pilot study	Promotion of family involvement, optimistic attitude, coping effectiveness, uncertainty reduction, and symptom management through a five-weekly sessions intervention (FOCUS Program)	Programme satisfaction (FOCUS Satisfaction Instrument)	Patient: aged ≥ 18 years, diagnosed with any type of cancer, currently in treatment or completed ≤ 18 months Caregiver: aged ≥ 18 years, primary family caregiver	Trained social workers, face-to-face in groups	Intervention is feasible and acceptable, participants reported that it is not duplicate with other services and helped them cope with cancer
Ketcher <i>et al.</i> [29]	10	Single arm pilot study	Promotion of dyadic communication focusing on personal goals through a single 8-min communication exercise	Discussion perception	Patient: aged ≥ 18 years, diagnosed with brain tumour, currently in treatment, KPS score ≥ 70 Caregiver: aged ≥ 18 years, self-identified as caregiver	Researcher (unspecified), face-to-face	Participants reported that the intervention was a positive experience, providing a safe environment to discuss about cancer
Tiete <i>et al.</i> [23]	64	Two-arm randomized pilot trial	Promotion of patients' and caregivers' reciprocal disclosure of concerns and requests for support through a four-session intervention Control: waitlist	Cancer-related dyadic communication, dyadic coping (DCI), depression and anxiety (HADS)	Patient: aged ≥ 18 years, diagnosed with any type of cancer, life expectancy ≥ 6 months, currently in treatment Caregiver: aged ≥ 18 years, designated by patient	Trained clinical psychologist, face-to-face	Intervention is feasible and acceptable, and increase dyadic, and cancer-related communication frequency and self-efficacy in both patients and caregivers
Fergus <i>et al.</i> [25 ^a]	75	Two-arm randomized controlled trial	Promotion of dyadic coping and relationship intimacy through a dedicated website providing a 6-module intervention (Couplelinks) Control: waitlist	Dyadic adjustment (DAS, KMSS, MMQ, DCI), depression and anxiety (HADS)	Patient: woman, aged ≤ 50 years, diagnosed with invasive breast carcinoma (nonmetastatic), or ductal carcinoma in-situ Caregiver: male intimate partner	Web-based intervention	Intervention is feasible and acceptable. Participants reported increase positive dyadic coping just after the intervention but not further in time
Gremore <i>et al.</i> [26]	20	Two-arm randomized controlled trial	Promotion of dyadic supportive communication through a four-session couple-based supportive communication intervention Control: Usual care with list of community resources for psychosocial support	Acceptability (CSQ), dyadic adjustment (DAS), social intimacy (MSIS), posttraumatic stress (IES-R), quality of life (FACT-HN, patients; CQOL Index-Cancer, caregivers), depression (CES-D), anxiety (PROMIS), fatigue (BFI, patients), pain (BPI, patients)	Patient: aged ≥ 18 years, diagnosed with stage I-IVa (nonmetastatic) head and neck cancer (0–6 months postdiagnosis), currently in treatment Caregiver: aged ≥ 18 years, intimate partner	Trained clinical psychologist, face-to-face	Intervention is feasible and acceptable. Spouses in the intervention reported increases in relationship intimacy and satisfaction, patients reported decreases in pain and fatigue, and both patients and spouses reported increases in quality of life, and decreases in anxiety and depression.

Table 1 (Continued)

Ref.	Enrolled dyads	Design	Intervention	Measured outcomes	Population	Delivered by, medium	Main findings
Chen <i>et al.</i> 30 [30]		Single-arm pilot study	Promotion of family involvement, optimistic attitude, coping effectiveness, uncertainty reduction and symptom management (FOCUS Program)	Self-efficacy (CSES), quality of life (FACT-G, patients; CQOL Index-Cancer, caregivers), coping (Brief COPE)	Patient: aged ≥ 21 years, diagnosed with any type of cancer, currently in treatment, life expectancy ≥ 6 months Caregiver: aged ≥ 21 years, designated by patient	Trained nurse, face-to-face and telephone	Brief FOCUS Programme is feasible. Participants reported increase in self-efficacy, higher quality of life in caregivers and decrease use of substance in patients
Individual psychological adjustment							
Price-Blackshear <i>et al.</i> [22]	77	Two-arm randomized controlled trial	Stress reduction through an 8 one-hour prerecorded videos mindfulness-based intervention Control: Individual mindfulness-based intervention	Stress (PSS), depression and anxiety (PROMIS), mindful attention and awareness (MAAS), dyadic adjustment (DAS), relationship quality (QMI), interpersonal mindfulness (IMS)	Patient: woman, aged 18–45 years, diagnosed with breast cancer stages 0-III (1–6 years postdiagnosis) Caregiver: intimate partner	Mindfulness-based stress reduction teachers, online prerecorded videos	Intervention is feasible and acceptable. participants reported lower levels of perceived stress, anxiety, depression, and fatigue after the intervention. However, the intervention appeared to have negative effects on dyadic adjustment and relationship quality
Milbury <i>et al.</i> [24]	75	Three-arm randomized controlled trial	Promotion of intra- (i.e. meditation) and interpersonal (i.e. emotional sharing) skills through a four-session couple-based mediation intervention Control 1: promotion of cancer-related communication through a supportive-expressive intervention Control 2: Usual care	Depression (CES-D), cancer-related stress (IES), and spiritual well being (FACT-SP)	Patient: aged ≥ 18 years, diagnosed with metastatic nonsmall cell lung cancer, currently in treatment, ECOG score ≥ 2 Caregiver: aged ≥ 18 years, intimate partner	Masters-level psychological counsellor, videoconference	Participants reported lower levels of depressive symptoms compared with usual care group, but not to control intervention group
Çömez <i>et al.</i> [31]	83	Two-arm pilot study	Promotion of adaptative physiological self-concept, role function, and interdependence modes through a web-based training (Breast Cancer and Life Quality) Control: Usual care	Quality of life (FACT-B, patients), dyadic adjustment (DAS)	Patient: woman, diagnosed with primary stage I or stage II breast cancer, had mastectomy or breast-conserving surgery in last 10 days Caregiver: intimate partner	Web-based intervention	Patients reported higher physical, emotional and physical quality of life in the intervention group. Both patients and spouses reported increase dyadic adjustment sub-scales in the intervention group

Table 1 (Continued)

Ref.	Enrolled dyads	Design	Intervention	Measured outcomes	Population	Delivered by, medium	Main findings
Other individual adjustment							
Lambert <i>et al.</i> [20] ^a	19	Single arm pilot study	Promotion of new self-management strategies and increasing of physical activity through a 10-week five-module intervention (TEMPO)	Perceived benefits and acceptability	Patient: diagnosed with prostate cancer (within past 2 years), currently in treatment or completed ≤ 2 years Caregiver: designated by patient	Web-based intervention	Intervention is feasible and acceptable. Participants reported that the intervention is useful in increasing their physical activity, enhancing communication or better cope together
Hallward <i>et al.</i> [21] ^a	<i>ibid</i>	<i>ibid</i>	<i>ibid</i>	Behaviour change techniques used	<i>ibid</i>	<i>ibid</i>	Participants reported that they learned and partially engaged with behaviour change techniques, including self-monitoring, goal setting, action planning, reviewing goals, problem solving and social support to attempt to increase physical activity
Porter <i>et al.</i> [27 ^{***}]	202	Two-arm randomized controlled trial	Promotion of pain coping and supportive communication skills through a three-weekly sessions intervention Control: Usual care with educational materials (written and videotapes on pain management)	Self-efficacy, caregiver strain (CSI), caregiving satisfaction (CAS), emotional distress (HADS, patients; CES-D, caregivers), pain (BPI, patients)	Patient: aged ≥ 18 years, diagnosed with stage IV solid or haematologic malignancy or stage III unresectable gastrointestinal cancer, worst pain in the past 2 weeks score ≥ 4 Caregiver: aged ≥ 18 years, designated by patient	Trained mental health providers, videoconference	Caregivers in the intervention group reported improvement in caregiving satisfaction and anxiety. In both conditions, caregivers reported improvements in self-efficacy, and patients reported improvements in self-efficacy, pain severity and interference, and psychological distress, suggesting that educational materials may be beneficial for both patients and caregivers

^aReport results from the same sample that received the same intervention.

[23,26] and one single-arm pilot study [29]. In one of the RCTs, 64 patient-caregiver dyads were randomized to the intervention, which promoted patients' and caregivers' reciprocal disclosure of cancer-related concerns and requests for support through in-session exercises, or a waitlist control condition. Findings indicated that intervention was feasible and acceptable and showed preliminary evidence of increase in communication frequency, communication self-efficacy and dyadic coping over time [23]. However, no effects were found on patient's and caregivers' emotional distress, probably due to the fact that the intervention was more centred on the communication skills reinforcement than on the content of the disclosed concerns and possible solutions for them. Another RCT reported results from a small sample of patients with head and neck cancer and their spouses [26]. The intervention included training in skills for supportive communication, along with in-session speaker/listener communication exercises, and identifying support needs. Results indicated that intervention was feasible and acceptable. Moreover, compared with those in the control condition, spouses in the intervention reported increases in relationship intimacy and satisfaction 6 months after the intervention, patients reported decreases in pain and fatigue, and patients and spouses reported increases in quality of life, and decreases in anxiety and depression.

Second, a RCT tested the 'Couplelinks' web-based intervention aiming to increase dyadic coping for young couples (patients ≤ 50 years old) facing breast cancer [25]. Through a dedicated website, patient-spouse dyads received a six-module intervention, including informational and interactive components such as online tasks and questionnaires to enhance communication, coping skills, mutual empathy and perspective-taking in relation to cancer. Seventy-five dyads were randomized to either the intervention ($n = 31$) or a waitlist control group ($n = 36$). Compared with the control group, dyads in the intervention reported significant improvements in positive dyadic coping immediately after the intervention, but not at 3-month follow-up. No significant effects were found on other relationship adjustment outcomes.

Third, a small single-arm pilot study reported results of a single 8-min communication exercise with 10 patients diagnosed with brain tumour and their caregivers. Participants were asked to discuss personal goals related or not to the patient's healthcare. Participants reported learning a moderate amount of new information from their partner and benefited greatly from having the discussion [29].

Finally, two single-arm pilot studies on different samples tested the 'FOCUS Program' [28,30]. This

programme had been previously tested in cancer patient-caregiver dyads with positive results [32,33], reducing negative appraisal of the illness, hopelessness [32] and uncertainty [33] and improving caregivers' quality of life and symptom management [33]. The programme had not previously been delivered in groups [28], or in outpatient oncology settings [30]. The intervention consists of five core contents: family involvement (promoting open communication and encouraging mutual support), optimistic attitude (promoting optimistic thinking and maintaining hope), coping effectiveness (encouraging healthy coping and lifestyle behaviours, and helping caregivers manage the demands of the illness), uncertainty reduction (educate dyads about the disease process and learning to be assertive to seek information) and symptom management (assessing symptoms and teaching self-care strategies). One study examined the satisfaction of 36 enrolled dyads who completed the FOCUS programme in small groups. Participants reported a positive effect of the group, noting that it promoted opened discussion of key issues with others also dealing with a cancer diagnosis [28]. The authors reported these findings are consistent with processes that foster peer support, the promotion to openly discuss thoughts and feelings in a well tolerated environment with individuals in a similar situation, and learn coping strategies that seem effective among others. The second study, conducted among 30 patient-caregiver dyads, reported significant changes in outcomes from pre to postintervention, including increased self-efficacy in both patients and caregivers, quality of life in caregivers and decreased substance abuse in patients, assessed through the Brief COPE scale [30]. No significant changes were found in caregivers' coping.

INDIVIDUAL PSYCHOLOGICAL ADJUSTMENT

Three of the included studies evaluated dyadic interventions, but primarily focused on individual psychological outcomes [22,31], two through RCTs [22,24] and one through a nonrandomized two-arm pilot study [31].

One RCT tested the efficacy of a mindfulness-based intervention on 77 female patients with breast cancer and their spouses [22]. This intervention aimed to decrease anxiety, depression and fatigue and, secondarily, improve dyadic adjustment. The intervention consisted of prerecorded videos that dyads either watched together in the intervention group or separately in the control group. Participants in both groups reported improvements in anxiety, depression and fatigue. For dyadic

adjustment, patients in the intervention reported decreases from pre to postintervention, whereas both patients and spouses in the control group reported increases. These findings highlight the fact that at an individual level (e.g. anxiety), patients may benefit from mindfulness-based intervention with or without their spouses. On the contrary, a mindfulness intervention delivered to couples does not appear to have benefits for dyadic adjustment.

Another three-arm pilot RCT tested a couple-based meditation intervention via videoconference [24]. The intervention included intrapersonal (i.e. meditation) and interpersonal (i.e. emotional sharing) components. In one arm, patients and spouses were experientially introduced to mindfulness meditation techniques and reflection exercises on their core values over four sessions. This intervention was tested relative to a supportive-expression control intervention and usual care in 75 patients with lung cancer and their spouses [24]. Although the trial was not adequately powered to detect significant effects between groups, there was preliminary evidence that, compared with usual care, the intervention led to decreases in depressive symptoms and cancer-related stress for patients at 3-month follow-up. No dyadic outcomes were assessed.

Finally, a two-arm pilot study evaluated the efficacy of a web-based intervention in patients with breast cancer and their spouses [31]. The primary outcome was patient quality of life and dyadic adjustment was a secondary outcome. Eighty-nine couples were allocated either to the intervention group or a usual care control group. The intervention, 'Breast Cancer and Quality Life', consisted of web-based modules, which promoted adaptive responses on four adjustment modes (physiologic, self-concept, role function and interdependence) based on the Roy Adaptation Model [34]. Compared with those in the control group, patients who received the intervention reported statistically higher quality of life (quality of life was not assessed in spouses). In addition, patients and spouses in the intervention reported statistically higher dyadic adjustment compared with the control group [31].

OTHER INDIVIDUAL ADJUSTMENT

The remaining studies tested interventions that were focused on various individual outcomes [20,21,27^{***}]. These interventions were tested through a single-arm pilot study [20,21], and an RCT [27^{***}].

The single-arm pilot study tested the 'TEMPO program', a web-based psychosocial and physical activity self-management intervention, among 19 prostate cancer patients and their caregivers [20,21].

Participants were interviewed regarding their perceptions of feasibility and acceptability, and their use of behaviour change techniques promoted through the intervention. Dyads reported TEMPO as acceptable, feasible and useful in enhancing communication to improve the way they cope together with the illness [20]. In addition, dyads reported that they effectively used change behaviour techniques, including self-monitoring, goal setting, action planning, reviewing goals, problem solving and social support to attempt to increase physical activity [21]. Actual changes in physical activity will be reported in a further study.

Finally, a large multisite RCT evaluated a caregiver-guided dyadic intervention for patients with advanced cancer to better deal with cancer-related pain [27^{***},35]. Two hundred and two patient-caregiver dyads were randomized to the pain coping skills intervention or a pain education control condition. Dyads in the intervention received three 60-min sessions delivered by trained mental health providers by videoconference, supplemented with written materials, an educational videotape about pain management and audio recordings of relaxation and imagery exercises. The therapists trained dyads in behavioural pain coping skills (e.g. relaxation, imagery, pleasant activity scheduling, activity pacing and communication). Dyads in the control group received educational information about pain management but did not receive any therapist-led sessions. Compared with those in the control arm, caregivers in the intervention reported significant improvements in caregiving satisfaction and anxiety. In both conditions, caregivers reported improvements in self-efficacy, and patients reported improvements in self-efficacy, pain severity and interference, and psychological distress. These findings suggest the potential benefits of pain education for both patients and caregivers, and that coping skills training may be beneficial for caregivers of patients with advanced cancer.

DISCUSSION/CONCLUSION

Cancer has multiple systemic impacts on patients and their caregivers. Dyadic psychosocial interventions provide the opportunity to target interpersonal cancer-related concerns in a more efficient and perhaps more effective manner than individual interventions. Prior reviews showed that dyadic psychosocial interventions are feasible, acceptable and effective at individual and dyadic level [17–19]. This update of the existing literature identified 12 recent studies, which provide additional support for the utility of dyadic interventions in the context of cancer.

This review also emphasizes some key methodological issues that have clinical implications. First, considering the heterogeneity of cancer type and cancer phases as eligibility criteria across the studies, development of standardized interventions fitting for every cancer type is challenging and probably meaningless. Tested interventions targeted numerous outcomes and different relationship types (e.g. family caregivers, couples). Thus, clinicians should consider the relationship type and the issues the dyad is facing regarding the illness phase when choosing or adapting interventions. Second, except for one study [27^{***}], dyads were not initially screened for any variables relevant for the tested interventions. This may constitute a weakness, as studies may include dyads with high levels of functioning (or low distress) who may not need or benefit from treatment, leading to null findings. Clinically, interventions are unlikely to be offered to patients or dyads who are not exhibiting significant symptoms or problems. However, more research is needed to identify appropriate screening tools for dyadic interventions. Third, five of the interventions were web-based, with little or no interactions with professionals. The majority of studies reported that these interventions are feasible, acceptable and effective on both individual and dyadic outcomes. Similarly, interventions delivered by videoconference were also found to be feasible, acceptable and efficacious. This suggests that clinicians could use web-based or prerecorded materials, or telehealth, to enhance the reach of supportive care services for dyads. Finally, the potential for clinical application of dyadic interventions will be enhanced through addressing methodological limitations in current research. For example, some studies did not assess dyadic outcomes, although they tested dyadic interventions. To fully understand the effects of dyadic interventions, it is important to include dyadic outcomes. In addition, many studies to date have been pilot studies with small samples and underpowered to detect effects. To draw consistent and robust conclusions that can inform clinical practice, researchers need to follow pilot studies with RCTs with adequately powered sample sizes. They should also consider conducting implementation-related process evaluations, which can facilitate translation of interventions into practice. As suggested by the results of this review, flexibility in delivery methods should probably be attentively considered in study development. In summary, there is now a relatively large body of research suggesting the promise of dyadic interventions for patients with cancer and their family caregivers. Methodologically rigorous and implementation-focused research is necessary if this

promise is to be realized through more widespread adaptation in clinical practice.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES AND RECOMMENDED READING

Papers of particular interest, published within the annual period of review, have been highlighted as:

- of special interest
- of outstanding interest

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This is a large sample randomized controlled trial reporting positive results on emotional distress and self-efficacy pain management in patients and caregivers.

Patient-participants were screened for eligibility with regards to significant pain level. Positive results in pain education control condition also indicate that education may benefit both patients and caregivers.

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