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A Systematic Review of Therapeutic Alliance, Group Cohesion, Empathy, and Goal Consensus/Collaboration in Psychotherapeutic Interventions in Cancer: Uncommon Factors?

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Abstract

The effects of four empirically supported therapeutic relationship factors (therapeutic alliance, empathy, goal consensus/collaboration, and group cohesion) on the outcome of psychotherapeutic interventions conducted with individuals living with cancer were systematically reviewed. PubMed, PsycINFO, and CINAHL were searched from their inception through November 13, 2008. Studies of psychotherapeutic interventions targeted to individuals living with cancer, which also empirically assessed the association between any of these therapeutic relationship factors and psychotherapy outcome were included in the review (8 of 742 papers initially reviewed). Information on study methodology and results were abstracted independently by the authors using a standardized form. Results indicated that therapist-rated rapport and group cohesion were significantly related to positive psychotherapeutic outcomes. No studies examined empathy. The literature on collaboration was mixed, but showed some support for increased collaboration being related to positive therapeutic outcomes. Overall the current literature on the role of therapeutic relationship factors in the context of individuals living with cancer is scant, and much more research is needed to determine the overall contribution of these four relationship elements to the outcomes of psychotherapeutic interventions for individuals living with cancer. Results of such studies could have important clinical and research implications.

Numerous meta-analyses and literature reviews exist attesting to the benefits of a tremendous variety of psychotherapeutic techniques for individuals with cancer (e.g., cognitive-behavioral therapy, hypnosis, group therapy, problem-solving therapy, stress management training, coping skills training, and relaxation). Psychotherapeutic techniques can help individuals with cancer achieve a wide variety of positive outcomes including reduced cancer-related symptoms and side-effects (pain, nausea/vomiting, fatigue), reduced emotional distress, improved quality of life, meaning, and dignity (Daniels & Kissane, 2008; Stanton, 2006; Tatrow & Montgomery, 2006; Jacobsen et al., 2008; Neron & Stephenson, 2007; Richardson et al., 2007). In reviewing this literature, and recognizing how vastly different techniques can have similar impacts on similar outcomes, one cannot help but begin to consider the possibility that factors common to all the therapies may be responsible for their beneficial effects. In particular, there are at

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least three sources of support for the idea that the therapeutic relationship may play an important role in psychotherapy outcome among individuals living with cancer.

First, this idea is supported by the extensive literature supporting the importance of a strong relationship between cancer patients and health care professionals, including physicians (Fuentes et al., 2007; Neumann et al., 2007) and nurses (Deeny & McGuigan, 1999; Kruijver, Kerkstra, Bensing, & van de Wiel, 2000). In fact, the National Cancer Institute recently published a monograph on patient communication, which highlighted the importance of strong patient-clinician relationships in promoting positive clinical outcomes. In particular, the monograph noted the importance of the expression of empathy on the part of the clinician, therapeutic alliances, and working to achieve clinician-patient consensus on treatment (Epstein & Street, 2007). Consequently, one might hypothesize that if relationship factors are important for other healthcare professionals, they should be equally important for individuals providing psychotherapeutic interventions as part of comprehensive cancer care.

Second, the possible role of the therapeutic relationship is supported by qualitative research which suggests that the therapeutic relationship is an important agent of change in the cancer psychotherapy setting. For example, MacCormack and colleagues (2001) interviewed 14 individuals diagnosed with metastatic melanoma, breast, or gynecological cancer who had participated in either: 6–8 individual relaxation therapy sessions or 6–8 individual cognitive-behavioral therapy (CBT) sessions. All therapy sessions had been conducted by master's or doctoral-level psychologists. Interviews were analyzed using grounded theory. One of the overarching themes of the interviews was that participants felt that the therapy they had received was primarily a relational experience. Interestingly, the authors note that it was difficult to tell from participants' transcripts which particular intervention they had received (indicating a relative lack of patient focus on therapeutic technique), and that *both* groups mentioned the relationship with the therapist as central to the benefits they received. Similarly, Liu et al. (2008) conducted a focus group interview with 12 women who had participated in a group therapy intervention, and content analysis of the qualitative data suggested that that group cohesiveness was an important treatment mechanism.

Third, and perhaps most importantly, the possible role of the therapeutic relationship is supported by the consistent findings in the broader psychotherapy literature of an association between therapeutic relationship factors and psychotherapy outcome. Most theories of change (e.g., behavioral, psychodynamic, client-centered) note the importance of the therapeutic relationship in psychotherapy (Wampold, 2001), and empirical literature indicates that the relationship accounts for more of the variability in psychotherapy outcomes than specific therapy ingredients (Wampold, 2001; Norcross, 2002).

However, the extant literature on the association between the therapeutic relationship and psychotherapy outcome has been primarily focused on individuals being treated for mental health (including substance abuse) issues. The state of the literature on the role of the therapeutic relationship among individuals being treated to deal with issues related to cancer is unknown. To our knowledge, there has been no systematic review of the literature on the association between therapeutic relationship factors and psychotherapy outcome among individuals living with cancer. The goal of the present paper is to conduct such a systematic review.

We recognize that the “therapeutic relationship” is a broad construct, and therefore decided to focus this review on the four particular relationship factors judged by The Task Force on Empirically Supported Therapy Relationships (created by the Psychotherapy Division, Division 29, American Psychological Association) to be demonstrably effective based on reviews of the literature. These four factors are: therapeutic alliance, empathy, goal consensus/

collaboration, and cohesion in group therapy. (Steering Committee, 2002). Each of these four relationship factors will be briefly reviewed below.

Therapeutic Alliance

Therapeutic alliance has been discussed in the psychotherapy literature for nearly a century, and within the past thirty years, empirical research on therapeutic alliance has substantially increased (Horvath & Bedi, 2002). Although there are numerous conceptualizations of therapeutic alliance, and numerous ways to assess it (Elvins & Green, 2008; Summers & Barber, 2003; Horvath, 2006), therapeutic alliance is generally viewed as involving an agreement between therapist and patient on the goals of treatment, the tasks needed to accomplish those goals, and a sense of a personal bond between therapist and patient (Bordin, 1979). The influence of therapeutic alliance on outcome is recognized by researchers and clinicians of various psychotherapeutic orientations (e.g., psychodynamic, cognitive-behavioral), and is the prototypical common factor shared by nearly all psychotherapies (Ackerman et al., 2001; Frank & Frank, 1991; Horvath et al., 2002; Messer & Wampold, 2002). A strong therapeutic alliance may increase client involvement and investment in the intervention, and may make it more likely that specific intervention techniques (e.g., cognitive restructuring) will be effective (Addis, Wade, & Hatgis, 1999).

From the empirical perspective, one recent meta-analysis of 79 studies found a consistent and moderate overall correlation of $r = .22$ for the relationship between therapeutic alliance and psychotherapy outcome (Martin, Garske, & Davis, 2000). A second meta-analysis of 90 studies reported similar results and found an overall average medium effect size of .21, with a median effect size of .25 (Horvath & Bedi, 2002).

Empathy

Empathy has been extensively studied in the context of psychotherapy outcomes. In fact, the extant literature on the relationship between empathy and outcome has been described as “exhaustive” (Tait, 2008, p. 109). Although there is no consensual definition of empathy (Bohart, Elliott, Greenberg, & Watson, 2002), Carl Rogers’ definition is commonly cited. Rogers (1980) describes empathy as “the therapist’s sensitive ability and willingness to understand the client’s thoughts, feelings, and struggles from the client’s point of view” (p. 85). Recent reviews generally converge on the idea that therapeutic empathy is comprised of at least three primary components: 1) cognitive (accurately recognizing the client’s experience); 2) affective (sharing the client’s feelings); and 3) behavioral (expressing empathy to the client) (Tait, 2008; Wynn & Wynn, 2006; Thwaites & Bennett-Levy, 2007). Empathy is recognized as a critical component of psychotherapy by various orientations including cognitive-behavioral, person-centered, psychodynamic, and experiential (Thwaites et al., 2007; Wynn et al., 2006). Empathy is thought to contribute to a positive psychotherapy outcome by: helping clients feel understood, improving the therapist-client relationship, helping clients feel safer and more comfortable self-disclosing and working on difficult topics, reducing premature termination, providing a corrective emotional experience, promote cognitive-affective processing, and supporting clients’ self-healing efforts (Greenberg, Elliott, Watson, & Bohart, 2001).

From the empirical perspective, a meta-analysis of 47 studies (with 190 separate tests of the empathy outcome association, and 3026 clients) reported that the overall relationship between empathy and psychotherapy outcome is $r = .32$ (Bohart et al., 2002).

Goal consensus and collaborative involvement

Goal consensus can be defined as patient-therapist agreement on the therapeutic goals and the expectations for therapy. Although some consider goal consensus and collaborative involvement to be a component of therapeutic alliance (Bordin, 1979; Tryon & Winograd, 2002), research findings have established goal consensus as an important contributor to therapeutic effects on its own. A 2002 literature review of 17 studies in this area found that if one combines patient, therapist, and observer ratings of psychotherapy outcome, goal consensus was positively related to at least one measure of psychotherapy outcome 68% of the time (Tryon et al., 2002).

Collaborative involvement has been defined as mutual involvement by patient and therapist in the helping relationship, and has been assessed by measuring a variety of factors including but not limited to: patient cooperation, patient resistance, homework completion, hostility, defensive styles, or involvement in the patient role (Tryon et al., 2002). A review of 24 studies in this area found that if one combines patient, therapist, and observer ratings of psychotherapy outcome, collaborative involvement (measured by patient cooperation, role involvement, and homework compliance) was positively related to at least one measure of psychotherapy outcome 89% of the time (Tryon et al., 2002). The wide variety of measures considered to assess collaborative involvement makes it a somewhat diffuse construct.

Cohesion in group psychotherapy

Unique to group therapy approaches is the concept of cohesion. Cohesion is often considered one of the most important factors contributing to beneficial effects in group therapy (Yalom & Leszcz, 2005). Recent clinical practice guidelines for group psychotherapy (Bernard et al., 2008), created by a task force of the American Group Psychotherapy Association (AGPA), state that cohesion is the central therapeutic factor in group therapy (Bernard et al., 2008). Cohesion is regarded as the group equivalent of therapeutic alliance in individual treatment, and involves member-to-member, member-to-group, and member-to-leader alliances (Bernard et al., 2008; Burlingame, Fuhrman, & Johnson, 2002), as well as leader-to-group and leader-to-leader (in the case of a co-therapist) relationships (Burlingame et al., 2002). Nevertheless, there is no consensus definition of cohesion. The literature on this topic has been criticized as lacking clarity and consistency in both the measurement and conceptualization of cohesion (Hornsey, Dwyer, & Oei, 2007), and consequently there is "little cohesion in the cohesion literature" (Joyce, Piper, & Ogrodniczuk, 2007, p. 271). There is however, empirical literature which supports a relationship between group cohesion and positive psychotherapy outcomes (e.g., Budman et al., 1989; Tschuschke & Dies, 1994), as well as between group cohesion and group process variables that promote positive outcomes, such as self-disclosure (Tschuschke et al., 1994).

Summary

To summarize, each of the four relationship elements described above has not only been found to contribute to psychotherapy outcome, but therapeutic alliance and empathy have also been estimated to account for at least as much of the variance in psychotherapy outcome as specific therapeutic interventions (Wampold, 2001). As noted above, this literature has been primarily focused on mental health populations, rather than individuals with medical illnesses such as cancer.

Goal of the present systematic review

The goal of the present paper is to perform a systematic literature review of the effects of the four empirically validated relationship factors described above (therapeutic alliance, empathy,

goal consensus/collaboration, and group cohesion) on the outcome of psychotherapy among individuals living with cancer. The results of this review will provide critical information both for those researchers designing psychotherapy interventions for individuals dealing with cancer, as well as for the clinicians conducting these interventions.

Methods

Search strategy

Three electronic databases (PubMed, PsycInfo, and CINAHL) were searched from their respective inceptions through November 13, 2008. For PubMed, the search terms were: ("Psychotherapy"[Mesh] AND "Neoplasms" [Mesh]). The search was limited by language (the paper had to be in English), by methodology (the study had to be either a Clinical Trial, Randomized Controlled Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Comparative Study, Controlled Clinical Trial, or a Technical Report), and by sample (human subjects). This search, with these limits, yielded a total of 406 abstracts/titles.

For PsycInfo, the major search terms were (exp neoplasms/ AND exp psychotherapy/). The search was limited by language (the paper had to be in English), by methodology (the study had to be either an empirical study, an experimental replication, a follow-up study, a longitudinal study, a prospective study, a retrospective study, a quantitative study, or a treatment outcome/randomized clinical trial), by publication type (the study had to be a journal article published in a peer-reviewed journal), and by sample (the study had to be conducted on humans). This search, with these limits, yielded a total of 317 abstracts/titles.

For CINAHL, the major search terms were (MH "Psychotherapy" AND MH "Neoplasms"). The search was limited by language (the paper had to be in English), by publication type (the study had to be peer-reviewed, a research article, and considered either: Clinical Innovations, Clinical Trial, Corrected Article, Journal Article, or Research). This search, with these limits, yielded a total of 19 abstracts/titles.

Selection Strategy

The abstracts of all articles identified by electronic searches (742 in total) were carefully screened by the authors to determine if the abstracts met the following inclusion criteria:

1) An intervention study, which empirically assessed the effects of a particular intervention on an outcome (excludes qualitative studies, survey studies, feasibility studies, reviews, meta-analyses, etc.); 2) Involves individuals living with cancer (including patients currently in treatment, cancer survivors, caregivers, siblings, etc.); 3) Involves a psychotherapeutic intervention which primarily uses verbal intervention techniques and occurs in the context of an interpersonal relationship, in order to allow for the assessment of the empirically validated relationship elements discussed above. This excludes interventions which are not primarily verbal (e.g., art therapy, music therapy, massage therapy, exercise, dance and movement therapy, aromatherapy, reflexology) as well as interventions which are not conducted live and in real time, between a therapist and patient (e.g., expressive writing, bibliotherapy, audio recordings). If a given study had multiple treatment groups, at least one intervention group had to meet these criteria for a psychotherapeutic intervention; 4) Empirically assess one of the four relationships elements defined above. (Since collaboration can be measured by patient cooperation, role involvement, and homework compliance (Tryon et al., 2002), we will include a broad range of measurements of this construct); 5) full abstract available online; 6) included some measure of psychotherapeutic outcome; 7) the study was not a duplicate (i.e., if an article

was cited in more than one database, it was only used once). Reasons for exclusion are detailed in Figure 1 - QUORUM Flow Diagram (Moher et al., 1999).

Using the exclusion criteria described above, 26 manuscripts were obtained and read in full, independently by the authors, each of whom completed a standardized form assessing the above listed criteria, as well as two additional ones. First, the article had to report empirical data on the relationship between at least one of the four relationship elements outlined above (therapeutic alliance, group cohesion, empathy, goal consensus/collaboration) and at least one psychotherapy outcome variable identified within the manuscript. Second, measures such as homework compliance or home practice were only considered to reflect collaborative involvement if the manuscript specifically mentioned that the homework or practice was assigned by the therapist, or if the homework/practice was given a label in the paper that indicated a sense of collaboration with the therapist (e.g., adherence, compliance, or collaboration). This second criterion excluded papers where home practice was described in terms of skill building or independent utilization of skills learned during the intervention, than in terms of therapist-patient collaboration.

Based on consensus review by both authors, 8 of the 26 papers were included in the review. The reasons for exclusion are detailed in Figure 1. It should be noted that no papers reported associations between any relationship elements other than the four described above, and any psychotherapy outcome.

Data abstraction and study characteristics

For each of the eight papers which were included in the review, relevant data was abstracted using a standardized worksheet. Each paper was abstracted independently by the authors. Any discrepancies were discussed among the authors with reference to the original manuscript until consensus was reached. Specific data collected included: 1) authors and publication date; 2) the study sample (e.g., age, cancer status); 3) the intervention and if available the interventionists; 4) study design elements; 5) the relationship element studied and how it was measured (e.g., scale and raters); and 6) the study results.

Results

Description of Trial, Sample, and Intervention Characteristics

See Table 1 for a summary of the reviewed study results.

Therapeutic alliance—Only one study examined therapeutic alliance as a predictor of psychotherapy outcome. Katz, Kellerman, & Ellenberg (1987) studied 36 children who were being treated as outpatients for acute lymphoblastic leukemia. The mean age of the children was 8 years, 3 months ($SD = 1.68$ years). Fifty-six percent of the sample was Caucasian, 30% was Hispanic, 6% was Black, and 8% was Asian. The study participants were randomized to either a hypnosis group or to a play comparison group. The comparison group was designed to control for professional attention. The goal of the hypnosis intervention was to reduce distress associated with bone marrow aspirations (BMA).

The hypnosis intervention lasted a total of five sessions. The first two sessions lasted 30 minutes, and took place prior to a BMA. Before each of the child's next 3 BMAs, they had a 20 minute intervention with the therapist, followed by the therapist joining the child and parent in the treatment room, where the participants in the hypnosis group received a nonverbal post-hypnotic cue. Participants in both treatment groups received encouragement from the therapist during the BMA.

The study assessed “rapport ratings” as follows. Following each pre-BMA intervention sessions, therapists rated their rapport with the subject on a 5 point scale, ranging from 1=excellent to 5= poor. All interventions were conducted by a psychologist with experience in both oncology and hypnosis. It is relevant that the development of rapport was explicitly described as a component of both the hypnosis intervention and the play comparison condition.

Results indicated that increased therapist-rated rapport was significantly related to decreased child self-reported pain in both the hypnosis group and the play comparison group. In other words, rapport was a significant predictor of psychotherapeutic effects, and had a medium to large effect size on procedure-related pain, based on Cohen’s criteria (1992). Rapport ratings were not significantly related to pain in the comparison group at the third post-intervention BMA, nor were they significantly related to children’s self-reported fear during BMAs.

In considering this study, the following three points should be noted. First, this is the only paper reviewed which specifically assessed the rapport with the therapist, and used rapport to predict outcome. The authors wrote that “Rapport appears to be an important variable warranting further study, and it is surprising how little attention is given to this factor in the majority of pediatric intervention studies” (Katz et al., 1987, p. 391). Despite the fact that this was written over 20 years ago, this state of affairs seems to still exist within the cancer setting. Second, it is not entirely clear that “rapport” as measured in this study is synonymous with “alliance” as it is typically conceptualized. The authors do not provide a theoretical foundation for their rapport measure, and do not use a “gold-standard” measure of alliance. Third, rapport was only rated by the therapists, not by the participants. In a brief intervention, such as in the Katz et al. study, this may have underestimated the magnitude of the effect, given that research suggests that early in therapy, client ratings of therapeutic alliance are stronger predictors of outcome than therapist ratings (Horvath et al., 2002).

Empathy—None of the studies reviewed examined empathy as a predictor of psychotherapy outcome.

Goal consensus/collaboration—None of the studies reviewed examined goal consensus between therapist and patient as a predictor of psychotherapy outcome.

Six of the studies reviewed assessed the association between home practice of techniques taught during the intervention, and a wide variety of psychotherapy outcomes including sleep, stress, distress, quality of life, fatigue, and adjustment to illness. Three of these studies involved mindfulness-based interventions. Shapiro, Bootzin, Figueredo, Lopez, & Schwartz (2003) conducted a study of women with breast cancer who were randomly assigned to either a mindfulness-based stress reduction (MBSR) intervention, or to a “free choice” control condition where participants could freely chose which stress management technique they wanted to participate in that week. Among the participants, amount of formal mindfulness practice was not significantly related to either sleep efficiency or sleep quality, and informal mindfulness practice (i.e., mindful awareness in daily activities) was not significantly related to distress. However, there was a significant interaction of informal practice by time such that increased informal mindfulness practice increased feelings of being rested over time. In two separate papers, Carlson and colleagues (Carlson, Speca, Patel, & Goodey, 2004; Carlson, Ursuliak, Goodey, Angen, & Speca, 2001) examined the effects of a mindfulness meditation-based stress reduction program on cancer outpatients. In the first, they found that following the intervention, home practice of meditation significantly predicted reduced mood disturbance. However, at a six-month follow-up, home practice did not significantly predict change in mood from post-intervention to follow-up (Carlson et al., 2001). In the second study, involving 42 patients with either breast or prostate cancer who underwent a Mindfulness-Based Stress Reduction (MBSR) program, results indicated that total minutes of home practice of

meditation and yoga (which the authors referred to as compliance) was not significantly correlated with MBSR-related improvements in quality of life, mood disturbance, stress, cortisol, DHEAS, cortisol/DHEAS ratio, or melatonin.

Three other studies which measured collaboration involved cognitive-behavioral interventions including relaxation training, cognitive-behavioral group therapy, and imagery. Cohen and Kuten (2006) studied 52 relatives of cancer patients who had participated in a cognitive-behavior group intervention. The authors found that: increased compliance with both thought monitoring and with relaxation/guided imagery were significant predictors of improved psychological distress and of reduced sleep difficulties. Practice of thought monitoring was significantly related to improved psychological adjustment; however, practice of relaxation/imagery was not a significant predictor of adjustment. Compliance with home practice of thoughts monitoring and relaxation/imagery were not significant predictors of perceived social support. In a second study, Cohen and Fried (2007) studied Stage I and II breast cancer patients, who were 2–12 months post-treatment, and who were randomly assigned to a cognitive-behavior group intervention, a relaxation/guided imagery training group, or a standard care control group. Data on the 2 intervention groups revealed that adherence to home practice of skills taught during the intervention predicted decreased psychological distress, decreased sleep difficulties, and decreased fatigue. Adherence to home practice was not a significant predictor of perceived stress, or internal or external locus of control. Finally, Freeman et al. (2008) studied breast cancer survivors who had completed an imagery stress reduction program. It was found that increased imagery practice was significantly associated with decreased pre- and post-imagery stress. However, imagery practice was not significantly related to change in stress from pre- to post-imagery.

It is important to note that none of the studies involving collaborative behavior specifically described such behavior as reflecting the strength or nature of the therapeutic relationship. Furthermore, none directly measured collaboration per se. Consequently, we cannot be confident that what we are considering to be collaborative behavior is not perhaps reflective of numerous other factors, such as difficulty of the assignments, the education or fatigue level of the participants, how much free time participants had to complete these assignments, etc. Therefore, although the studies reviewed here suggest that collaboration may be significantly associated with psychotherapy outcome among individuals living with cancer, they are at best a rough estimate of the collaboration construct, and should be considered with some caution.

Group cohesion—Only one study examined group cohesion as a predictor of psychotherapy outcome. Andersen, Shelby, and Golden-Kreutz (2007) studied 114 patients with breast cancer who were randomized to the intervention arm of a larger randomized clinical trial (Andersen et al., 2004). The mean age of the women in the intervention group was 50.56 years ($SD = 10.68$), and 90% of the sample was white. The goals of the intervention were to influence stress, quality of life, health behaviors, and chemotherapy dose intensity.

The intervention was group-based, with each group containing between 8 and 12 patients. The intervention was designed to be a total of 26 sessions (each session was 90 minutes), which took place over the course of 12 months. During the first four months, participants were asked to attend 18 weekly sessions. Over the next 8 months, they were asked to attend 8 monthly sessions. More detailed information regarding the study can found in the original papers (Andersen et al., 2004; Andersen et al., 2007). The intervention was manualized and included a wide variety of intervention components including: presenting a conceptual model, relaxation training, problem solving, positive coping, social support, assertive communication training, low-fat/high-fiber food consumption, food intake diary, energy balance information, walking protocol, strategies to increase daily activity level, strategies of physical and stress-related

symptom management, assertive communication skills with physician, disease/treatment information, planning appointments, and goal setting (Andersen et al., 2007).

Two items were used to assess participants' sense of group cohesion: "How involved did you become in this group experience?" and "How supported by this group did you feel?" Each item was rated on an 11 point Likert scale, from 0=not at all to 10 = extremely. The average of the two items represented a participant's score. Participants completed the cohesion items at the conclusion of the intensive phase of the intervention (i.e., 4 months into the intervention, or in other words, at the conclusion of 18 weekly sessions). All interventions were conducted by two of three clinical psychologists (two had a doctorate; one had a master's degree). The therapists had 20, 10, and 2 years experience.

Results indicated that increased group cohesion predicted reduced emotional distress, increased physical activity, and increased Karnofsky Performance Status over time. Participant-rated cohesion was not significantly related over time to perceived social support, dietary patterns, or symptoms/signs.

In considering this study, the following three points should be noted. First, recent clinical practice guidelines for group psychotherapy (Bernard et al., 2008) suggest a set of evidence-based measures to assess cohesion, including the Therapeutic Factors Inventory and the Cohesion to the Therapist Scale. The reliability and validity of the two-item measure used in the current study are not reported. Second, cohesion is often considered to be a complex construct which involves member-to-member, member-to-group, member-to-leader, leader-to-group, and leader-to-co-leader alliances (Bernard et al., 2008; Burlingame et al., 2002). Although the study by Andersen and colleagues (2007) is the first and only one in the field to empirically demonstrate the importance of group cohesion on psychotherapy outcome, by only assessing member-to-group relationships at one time point, this study may not have provided a comprehensive picture of the influence of group cohesion in cancer patients.

Discussion

This systematic review represents the only summary to date of the effects of therapeutic relationship factors (therapeutic alliance, empathy, goal consensus/collaborative behavior, and group cohesion) on psychotherapy outcome among individuals dealing with cancer and its treatment. The most salient finding of this review (and consequently the greatest limitation of the extant literature) is how few studies there were to review. Only 8 out of 742 abstracts (1.08%) examined the association between therapeutic relationship factors and psychotherapy outcome. Moreover, only 2 of these studies *directly* measured relationship variables. The other 6 inferred them from more indirect measures of what can be considered collaborative behaviors (e.g., home practice of techniques taught during the intervention). In other words, the results primarily indicate that although the therapeutic relationship is widely considered to be a common factor which operates across all psychotherapies (Frank, 1973; Kirsch, 1990), the study of the therapeutic relationship appears to be quite "*uncommon*" in the cancer psychotherapy literature. We were shocked by this finding for several reasons. First, it sets the cancer psychotherapy literature in stark contrast to the general psychotherapy literature, where not only do numerous articles exist on these relationship elements, but meta-analyses as well. The present review thus suggests a major disconnect between the two literatures. Second, the cancer literature *has* paid empirical attention to other common factors, including hope (Stanton, Danoff-Burg, & Huggins, 2002; Christman, 1990; Vellone, Rega, Galletti, & Cohen, 2006; Chi, 2007) and response expectancies ((Roscoe et al., 2006; Montgomery et al., 1998; Montgomery & Bovbjerg, 2000; Montgomery, Weltz, Seltz, & Bovbjerg, 2002; Molassiotis, Yam, Yung, Chan, & Mok, 2002; Sohl, Schnur, & Montgomery, 2009). It is not clear why relationship factors have not received similar attention. Third, there is widely acknowledged

variability in the reported effectiveness of psychotherapeutic interventions with individuals living with cancer (Stanton, 2006; Lepore & Coyne, 2006; Jacobsen & Jim, 2008). If the therapeutic relationship does account for a significant proportion of the variance in psychotherapy outcome, then it is likely that the assessment of such relationship factors could help to explain this variability, and help to make sense of the literature. Fourth, as guidelines published by the American Psychological Association (Division 29) state that descriptions of effective psychotherapies which do not include information about the therapeutic relationship are “seriously incomplete and potentially misleading on both clinical and empirical grounds” (Ackerman et al., 2001, p. 495), this review calls into question the thoroughness of the cancer psychotherapy literature. That being said, the literature on psychotherapy with cancer patients is relatively young when compared with the overall psychotherapy literature. As a result, often intervention researchers in cancer are primarily focused on establishing the effects of psychotherapeutic interventions, rather than on the mechanisms underlying such effects. Therefore, the cancer psychotherapy literature may be somewhat immature, and as it develops, we may expect more attention to be paid to therapeutic relationship factors.

The literature which does exist indicates that: 1) therapist-patient rapport (therapeutic alliance) is associated with decreased pain; 2) collaborative behaviors (e.g., adherence with homework practice) are associated with feeling rested upon awakening from sleep, reduced mood disturbance, reduced psychological distress, reduced sleep difficulties, improved psychological adjustment, decreased fatigue, and decreased stress; and 3) group cohesion is associated with reduced emotional distress, increased physical activity, and higher KPS scores (i.e., performance status). One limitation of the extant literature is that the majority of the studies included, either exclusively or in part, adult women with breast cancer. Therefore, generalizability to other cancer populations remains unclear. Furthermore, no studies reviewed assessed empathy or goal consensus as predictors of psychotherapy outcome, despite the recognized importance of these factors (Bohart et al., 2002; Tryon et al., 2002).

The present results on alliance, collaborative behaviors, and cohesion are consistent with the more general psychotherapy literature, in their demonstration of an association between relationship factors and psychotherapy outcome. They extend the current psychotherapy literature by focusing on the cancer setting, and by demonstrating that the beneficial effects of these relationship elements are not restricted to more traditional psychotherapy outcomes (e.g., emotional distress). The results indicate that these relationship elements positively impact health outcomes as well.

It is quite likely that the vast majority of the researchers designing psychotherapeutic interventions for cancer patients are in fact aware of the importance of the therapeutic relationship factors, and account for it in various subtle or unpublished ways. For example, several authors (Lang et al., 2000; Montgomery et al., 2007) have specifically chosen to use an “empathic attention” control group, in recognition of the important role that empathy can play in intervention outcome. In addition, we suspect that many manualized treatments contain instructions on how to develop and maintain rapport. However, unless this information is published, empirically assessed (e.g., measurement of perceived empathy and rapport), correlated to intervention outcome, and taught in professional training programs, the importance of such factors may be ignored in the literature (MacCormack et al., 2001).

Psychotherapy has been defined as “... a primarily interpersonal treatment” (Wampold, 2001, p. 3), and it has been written that “It is within the context of a relationship that client and therapist meet in a joint attempt to understand and resolve a client’s problems” (Critchfield, Henry, Castonguay, & Borkovec, 2007, p. 2). Looking to the future, we hope that the present findings will spur investigation of the effects of the therapeutic relationship in the oncology setting. Such investigation could profoundly enhance not only the current psychotherapy

literature, but also the psychotherapeutic care offered to individuals living with cancer, and consequently, their quality of life.

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Figure 1.
QUORUM Flow Diagram

Summary of studies reviewed.

Table 1

Authors/ Year	Population/Procedure, Sample size	Intervention Group(s)	Interventionist	Study design	Construct	Measurement, Rater	Significant Results	Nonsignificant Results
(Katz et al., 1987)	Children with acute lymphoblastic leukemia undergoing bone marrow aspirations (BMA)	Hypnosis vs. Play comparison condition	Psychologist	Randomized trial	Therapeutic alliance	1–5 scale (1=excellent, 5=poor) rating “mutual rapport with the subject” Rater: Therapist	Increased rapport associated with decreased self-reported pain in both groups.	Rapport was not significantly associated with self-reported fear.
	<i>n</i> = 36							
(Shapiro et al., 2003)	Women with Stage II breast cancer, posttreatment	Mindfulness-based stress reduction (MBSR) vs. “free choice” control condition	Interventionist not reported in this paper	Randomized trial, Collaborative Involvement examined in the MBSR group	Collaborative involvement	Average number of : -times/minutes per week of MBSR practice -times per week of informal practice -average minutes/week of individual stress management -average minutes/week of social stress management Rater: Participant	Increased informal mindfulness practice predicted feeling rested, over time.	Amount of formal mindfulness practice was not significantly related to sleep quality or sleep efficiency.
	<i>n</i> = 36							Amount of informal mindfulness practice was not significantly related to distress.
(Carlson et al., 2001)	Cancer outpatients (male and female, stage I-IV)	Mindfulness-Meditation based stress reduction	Interventionist not reported in this paper	Within group, longitudinal	Collaborative involvement	Duration of daily meditation practice Rater: Participant	Total minutes spent in Meditation significantly predicted reduced mood disturbance.	Meditation practice did not significantly predict change in mood from post-intervention to six-month follow-up.
	<i>n</i> = 54							
(Carlson et al., 2004)	Adults with Stage 0-II breast or early-stage prostate cancer, postsurgery	Mindfulness-based stress reduction	Interventionist not reported in this paper	Within group, longitudinal	Collaborative involvement	Minutes spent in home practice of meditation and yoga each week Rater: Participant	No significant results.	Practice was not significantly correlated with: quality of life, mood disturbance, stress, cortisol levels, DHEAS levels, cortisol/DHEAS levels, or melatonin levels.
	<i>n</i> = 42							
(Cohen et al., 2006)	Relatives of cancer patients	Cognitive-behavioral group intervention	Social worker	Non-randomized study, longitudinal, collaborative	Collaborative involvement	How many times per week (average of the 2 previous weeks) participants performed	Increased thought monitoring was related to: reduced distress, reduced sleep difficulties, and	Thought monitoring practice was not significantly related to
	<i>n</i> = 52							

Authors/ Year	Population/Procedure, Sample size	Intervention Group(s)	Interventionist	Study design	Construct	Measurement, Rater	Significant Results	Nonsignificant Results
(Cohen et al., 2007)	Women with Stage I or II breast cancer, posttreatment <i>n</i> = 77	Cognitive-behavioral group intervention, relaxation/imagery guided intervention, or standard care	Social worker	involvement only examined in the intervention group	Randomized trial	relaxation and guided imagery exercises for at least 10 minutes How many times per week participants performed written automatic thought monitoring -Rater: Participant	improved psychological adjustment. Increased relaxation/guided imagery practice was related to: reduced distress and reduced sleep difficulties	perceived support. Relaxation/imagery practice was not significantly related to psychological adjustment or perceived support.
(Freeman et al., 2008)	Breast cancer survivors <i>n</i> = 30	Imagery Stress reduction program	Psychologist leader Physician and research professional co-leaders	Within group, longitudinal	Collaborative involvement	One item asking how often participants practiced learned techniques (either cognitive or RGI) at home. Scores ranged from 1=not at all to 5=five times a week or more Rater: Participant	Increased practice was related to decreased psychological distress, decreased sleep difficulties, and decreased fatigue.	Practice did not significantly predict perceived stress or locus of control.
(Andersen et al., 2007)	Women with Stage II or III breast cancer treated with segmental or modified radical mastectomy <i>n</i> = 114	Multimodal Group intervention	Psychologist	Intervention arm of a randomized trial	Group cohesion only examined in this intervention group.	The number of practice assessments completed Rater: participant	Increased practice was related to reduced pre- and post-imagery stress.	Practice was not significantly related to change in stress from pre to post-imagery.
						Two items: How involved did you become in this group experience? How supported by this group did you feel? Each rated on an 11-point Likert scale Rater: participant	Over time, increased cohesion was related to decreased distress, increased physical activity, and increased KPS performance status.	Cohesion was not significantly related to perceived social support, food habits, or symptoms/signs.