Running Head: Forgiveness Therapy as Palliative Care

A Palliative Care Intervention in Forgiveness Therapy for Elderly Terminally-Ill Cancer Patients

Mary J. Hansen, Ph.D., Director of Corporate Compliance & Audit Services, Meriter Health Services, Inc., 202 S. Park Street, Madison, WI 53715, USA. Tel: 1-608-417-5831; Fax: 1-608-417-5801; Email: mhansen@meriter.com

Robert D. Enright, Ph.D., Professor of Educational Psychology, University of Wisconsin-Madison, 863h Educational Sciences, 1025 W Johnson Street, Madison, WI 53706, USA and International Forgiveness Institute, Inc., 1127 University Avenue, Madison, WI 53715, USA. Tel: 1-608-262-0835; Fax: 1-608-262-0843; Email: renright@wisc.edu

Thomas W. Baskin, Ph.D., Assistant Professor of Educational Psychology, University of Wisconsin-Milwaukee, Enderis Hall 785, 2400 E. Hartford Avenue, Milwaukee, WI 53201, USA. Tel: 1-414-229-5155; Fax: 1- 414-229-6548; Email: baskin@uwm.edu

John Klatt, Ph.D., University of Wisconsin-Madison, 1450 Linden Drive, 116 Ag Hall, Madison, WI 53706, USA. Tel: 1-608-262-4618; Fax: 1-608-265-5905; Email: jsklatt@wisc.edu

Correspondence: John Klatt, University of Wisconsin-Madison, 1450 Linden Dr., 116 Ag Hall, Madison, WI 53706, USA. Tel: 1-608-262-4618; Fax: 1-608-265-5905; Email: jsklatt@wisc.edu

Abstract

Palliative care is now considered an essential part of end-of-life care, yet little research examines the efficacy of interventions addressing the psychological treatment of dying patients. Forgiveness therapy has been shown to be effective in improving psychological well-being and may provide a valuable addition to a terminal cancer patient's overall treatment plan. This study experimentally tested the effectiveness of a 4-week forgiveness therapy in improving the quality of life for elderly terminally-ill cancer patients. Participants (n=20) were randomly assigned to forgiveness therapy or to a wait list control condition, which received forgiveness therapy in the second 4-weeks. All participants completed instruments measuring forgiveness, hope, quality of life, and anger at pretest, posttest 1, and posttest 2. The forgiveness therapy group showed greater improvement than the control group, with one-tailed t-tests, on all measures. After receiving forgiveness therapy, participants in both forgiveness treatment conditions demonstrated significant improvements on all measures. The aggregated effect size was large. The four-week forgiveness therapy demonstrated psychological benefits for elderly terminally-ill cancer patients and thus may be an appropriate addition to the treatment plan for terminal cancer patients.

A Palliative Care Intervention in Forgiveness Therapy for Elderly Terminally-Ill Cancer Patients

Palliative care is the active overall care, including quality of life care, of patients whose disease is no longer responsive to medical treatment. Although scholars have called for psychological interventions within palliative care that address anger [1-2] and emotional health [3] many dying patients do not receive psychological treatment [4].

A growing body of literature suggests that the amelioration of psychological symptoms in the elderly, terminally-ill cancer patient is challenging and difficult [5-7]. The patient's reduced energy, ability to concentrate, and cognitive skills all play a part in this challenge. Professionals working in a palliative care setting can benefit from identifying interventions that improve dying patients' psychological health. While psychological health can be operationalized in many ways, we chose to focus on three dimensions with considerable scientific evidence to support this view: anger that is reduced from clinical levels to the normal range [8], a sense of hope [9], and a sound quality of life including the mastery of goals and emotions, as well as having a strong support group [10-11].

A recent report [12] by the Institute of Medicine (IOM) describes the importance of meeting cancer patients' psychosocial needs. The report reviews findings that indicate many cancer patients, whether or not they meet criteria for clinical diagnoses such as major depression, experience fear, guilt, anger, sadness, and confusion. Unmet psychosocial problems can lead to increased morbidity and mortality, affect patients' ability to effectively manage their illness. The IOM report recommends that researchers and

practitioners should identify intervention strategies that can reduce anxiety and anger while fostering positive psychological traits in this population.

Although the palliative care literature includes reports of psychological interventions, often the interventions center only on the caregivers [13-15]. In addition, the reports of interventions that focus on the quality of life of the dying patient tend to be program evaluations that are not psychotherapeutic in nature [16-17] or case studies [18]. Few randomized controlled studies of psychotherapeutic care for elderly patients with terminal cancer exist. The current study addresses this gap in the published literature.

This study investigated the efficacy of forgiveness therapy for elderly terminally ill cancer patients' emotional well-being. Many studies support the scientific validity and therapeutic efficacy of forgiveness therapy as a viable and established intervention [19-25]. Forgiveness therapy may be especially cogent for elderly terminal cancer patients for three reasons. First, cancer often involves the potential for guilt and conflict among family members [1]. Forgiveness may diminish anger and make reconciliation with family members more likely [26]. Second, forgiveness therapy has been shown to be effective in improving the psychological well-being in an elderly population [19]. Third, research in senescence by Butler [27-28] suggests the telling of one's life story may facilitate the individual's constructive preparation for the transition to death and therefore be an important aspect of effective therapeutic interventions for terminally-ill cancer patients. In essence, the elderly need to tell their story of interpersonal relations, including those that have been unfair. Independent lines of research with cancer patients and on forgiveness also suggest telling one's story can be helpful. A study of breast cancer patients

demonstrated emotional expression and benefit-finding reduced cancer-related morbidities and number of medical appointments [29]. A study in a non-clinical sample found that written exercises about recent transgressions facilitated forgiveness [30]. Telling one's story may not be sufficient to reduce anger and improve quality of life [31] and scholars have advocated the addition of forgiveness within the psychotherapeutic process [32-33].

Scientific studies are beginning to show forgiveness as a possible contributor to psychological well-being following unfair treatment [8]. Forgiveness therapy has been effective in randomized, small-sample trials with elderly females [19], incest survivors [20], parentally-love-deprived adolescents [21], post-abortion men [22], married couples [23], adults in drug and alcohol treatment [24], and divorced individuals [25]. These studies have shown that forgiveness therapy can improve forgiveness [19-25], self-esteem [19-21, 24], hope [20-21], communication [23], and relationships [20] while reducing depression [19-20, 24], anger [22, 24], anxiety [19-21, 24], grief [22], and vulnerability to drug use [24]. The research reported here sought to determine if a short-term intervention using forgiveness therapy could enhance psychological health of older adults experiencing terminal cancer and emotional compromise and therefore serve as a compliment to the patient's overall treatment plan.

METHOD

Sample

According to Cohen's [34] seminal volume, the expected effect size of an intervention is an important factor in selecting the best sample size. Baskin and Enright [35] showed previously completed individual forgiveness interventions had an average effect size of 1.42 when looking at mental health variables. Since this specific individual

intervention has not been tried, we used a slightly more conservative estimate of 1.2 as our potential effect size. Using Cohen's tables and guidance that a power of 0.80 generally balances cost and benefit best within the social sciences, our goal was to have a sample size of 10 per group, or 20 total participants, for a power of 0.83.

All participants were referred to the study, primarily from social service and healthcare agencies in a Midwestern community. Participants were predominately middle-class and were screened to meet the study criteria of: minimum age of 60, diagnosis of terminal cancer with 6-months or less to live, cognitively alert, and the identification of a perceived unjust and deep hurt from another. Cognitively alert meant participants were able to give informed consent, understand and participate actively in treatment, and were not disoriented. The diagnosis of terminal cancer was made by the participants' primary oncologist. The participants all had advanced cancer, with type and therefore medical treatment differing across participants. All participants continued to receive medical treatment as prescribed by their oncologists throughout the intervention; some participants also received standard hospice care. All participants in both groups were free to seek appropriate medical and psychological help as needed. Because we randomized to group, we should not have a confound of treatment condition and outside medical influence.

Twenty-seven individuals were referred to the program. Twenty met the study criteria and were included. Reasons for non-inclusion included being younger that 60 years of age (2 persons), not having a terminal cancer diagnosis (4 persons), and not identifying an issue that would require resolution as part of the forgiveness intervention (1 person).

Instruments

All instruments were self-report, and were administered by the lead investigator. They were chosen based on their strong psychometric properties and their relevance to the intervention. The lead investigator was trained in the use of the measures during doctoral education in psychology and the second author, who is a licensed psychologist, gave additional training and supervision. Also, the lead investigator had years of professional experience prior to the study working with frail older adults.

Initial Screening

A questionnaire and symptom checklist were used to identify eligible candidates. The questionnaire verified that potential participants met study criteria and provided data needed to complete appropriate matching for the yoke design. Participants were asked to describe a perceived injustice, provide demographic information (age, gender, marital status, and family members), and indicate their medical diagnosis. Participants were asked to identify one incident in which they perceived a deep and unjust hurt happened to them. This incident, referred to as their personal story, was then used during the forgiveness intervention. Because the goal was to illustrate that a forgiveness intervention facilitates improved psychological health, individuals who already displayed psychological well-being were not included. Psychological well-being was operationalized by the State Anger Scale, Herth hope index, and the McGill Quality of Life Scale described in the Instruments section. The checklist used for this study was based on Freedman and Enright [20].

Enright Forgiveness Inventory

The Enright Forgiveness Inventory (EFI, [36]) is a 60-item self-report measure of interpersonal forgiveness toward a person who has been unfair. The EFI includes six

subscales (10 items each): Positive and Negative Affect, Positive and Negative Behavior, and Positive and Negative Cognition. The total EFI score range is 60 to 360 with a high score representing a high level of forgiveness. Prior to rating each item on the EFI, participants were asked to think of the most recent experience of someone hurting them deeply and unfairly. Participants were then asked to report on the perceived degree of the hurt (1-5 scale). They were also asked who hurt them, if this person was still living, and how long ago the offense occurred. The participants then briefly described the incident. Sample items from the affect, behavior, and cognition subscales include: "I feel positive toward him or her (the offender)", "Regarding the person (offender) I do or would show friendship", and "I think he or she (offender) is worthy of respect". To avoid response set bias, the word forgiveness is not used in any of the 60 items. Internal consistency has been found to be 0.90 or higher and test-retest reliability ranges from 0.67 to 0.91 [8]. In this study, Cronbach's alpha on all participants' pretest scores was 0.98. The EFI is valid for older adult populations [19] and for use in forgiveness therapy [22, 24].

State Anger Scale

This instrument, which assesses level of current anger, is a 10-item self-report subscale of the State-Trait Anger Expression Inventory [37]. Scores range from 10 to 40 with higher scores indicating more state anger. Sample items include "I am furious" and "I feel like hitting someone." Internal consistency in a normative sample was .90 and concurrent validity has been established [37-38]. In this study, Cronbach's alpha was 0.91.

Herth Hope Index

The 12-item self-report Herth Hope Index [39], a version of the Herth Hope Scale [9-40], uses a 4-point scale from strongly disagree (1 point) to strongly agree (4 points). Items are grouped into three factors: inner sense of temporality and future, inner positive readiness and expectancy, and interconnectedness with self and others. Scores range from 12 to 48 with higher scores indicating more hope. Sample items include "I have a positive outlook toward life", "I believe each day has potential," and "I am able to give and receive caring / love." Adequate reliability and vailidity have been established for elderly samples [39]. In the current study Cronbach's alpha at pretest was 0.84.

McGill Quality of Life Scale

The McGill Quality of Life scale (MQOL, [10-11]) is a 16-item self-report scale that measures quality of life for terminally-ill cancer patients. The scale includes four subscales assessing physical, psychological, existential, and support. The score range for each item is 0 to 10, and the total scale range is 0 to 160, with higher scores indicating higher quality of life for the individual. For each item participants rate themselves on an 11-point scale (0 – 10). Sample items include "Physically, I felt . . . terrible = 0 / well = 10"; "I was nervous or worried . . . not at all = 0 / extremely = 10"; "In achieving life goals, I have . . . made no progress whatsoever = 0 / progressed to complete fulfillment = 10"; "I feel supported . . . not at all = 0 / completely = 10" for the physical subscale, psychological subscale, existential subscale, and social subscale respectively. The scale has been found to be an a reliable and valid tool for measuring the effect of palliative care intervention [10-11]. In this study, the internal consistency was 0.95.

Eastern Cooperative Oncology Group Performance Status

The Eastern Cooperative Oncology Group (ECOG) developed standard criteria to assess cancer patients' response to treatment to be used in clinical trials [41]. This is a single-item self-report measure of physical function. Scores range from 0 (normal activity, no symptoms) to 5 (Deceased). In this study, scores ranged from 0 (normal activity, no symptoms to 4 (unable to get out of bed). The ECOG Performance Status scale is now widely used to assess patients' physical functioning [42]. In this study, it was not used as an outcome measure, but was used to verify balance within the groups.

Procedure

The participants were matched and then randomly assigned to the experimental and control groups in a yoked-pair design. Participants were matched on age, gender, degree of illness, and type of hurt described by the participant. Degree of illness was operationalized by a participant's activity level [41]. Type of hurt centered on such issues as family-of-origin injustices, hurt from spouse or children, or other forms of hurt outside of the family context. Because this was a homogeneous sample from a mid-size city, we did not encounter instances in which we could not match two participants across the variables. When two participants entered the study who were similar on matching criteria, they were paired together and then randomized to group according to the following procedure. Names were placed on cards, which were sufficiently shuffled to attain randomness. The card pairs were placed side-by-side and the client on the left was place in the experimental group and the other in the control group. Those in the experimental group began forgiveness therapy immediately following completion of the pretest, while those in the control group entered into a four-week waiting period. The majority of clients completed

the intervention within the four weeks allotted. In two cases delays in sessions (such as rescheduling because of not feeling well enough) resulted in a five-week intervention period. No intervention took longer than five-weeks, and all interventions included exactly four sessions. All participants were informed that they might begin the program immediately or be on the waiting list and each of the participants in the control group was able to participate in the forgiveness experiment after the initial posttest. All participants were seen individually by the lead investigator. After completion of forgiveness therapy, both participants completed posttest 1. The matched control participant then received forgiveness therapy. Once the control-turned-experimental participant completed the intervention, posttest 2 was administered to both participants again, which served as a follow-up assessment for the original forgiveness therapy participants.

Testing Procedure

All participants completed pretests, with measures administered in random order. The same procedure was repeated at posttest 1 (four weeks after pretest) and posttest 2 (four weeks after posttest 1).

Forgiveness therapy procedure

The four-week forgiveness therapy consisted of once-weekly individual sessions each lasting approximately 60 minutes. We did not conduct precise measurements of time, however all sessions were relatively close to the goals specified. An introductory session was conducted with all participants to complete pretests and to explain the program prior to beginning the intervention.

The intervention consisted of four units, each with a particular focus on the psychological variables and units of the process model of forgiveness [8, 43]. The process model of forgiveness describes what a person does as he or she progresses toward forgiveness following a transgression and the changes in his or her cognition, behavior, and affect. The model is composed of 20 individual guideposts distributed over four phases. The forgiveness model is not conceptualized as a rigid sequential stage-like progression, but is thought to be flexible. Faith is not incorporated into this model of forgiveness. The model was developed to help people through the forgiveness process in a counseling context [8-43].

The intervention was created to recognize and respect the specific needs of older adults at the end of life. The program was limited in length, relative to other forgiveness therapy programs, which vary in length from approximately 10-weeks to 14 months [20]. It was anticipated that participants would have limited time and energy to complete a standard-length program. All sessions were conducted by the same intervener, a Caucasian woman who was a licensed social worker with 15 years experience working with older adults with healthcare needs. The intervener conducted sessions at mutually agreed upon locations, which in all cases were the participants' homes.

The components of the forgiveness process model were covered during the four session intervention. In each session, forgiveness principles were shared; the goal of each session was to have participants apply the concepts learned during the sessions to their own personal story of injury. The content of the intervention addressed participant's personal stories of perceived unjust and deep hurt. Forgiveness was offered as a healthy

alternative to the negative emotion being experienced by the participant. Each of the four units, or sessions, is described below.

Unit 1 discussed the uncovering of the participant's anger caused by the perceived injustice from the person identified on the EFI. The distinction between positive and negative anger (the kind that can debilitate) was discussed. The participant was introduced to a definition of forgiveness for discussion: Forgiveness is the process of abandoning resentment, condemnation, and subtle revenge toward an offender, while fostering the undeserved qualities of compassion, generosity, and beneficence toward him or her.

Unit 2 focused on expanding the participant's cognitive perspective toward the offending person. The point was to reframe whom the offender is, thinking of him or her in a wider context than the offense that was perpetrated. Empathy and compassion, as related affective constructs to cognitive reframing, were introduced.

Unit 3 emphasized what the philosopher North [(44)] called the softened heart toward an offender. The point was to give the participant the choice to let go of the pain that he or she had carried for years. Finally, Unit 4 concentrated on the outcomes of forgiveness, including finding meaning in what was experienced and developing a new way of relating to the offender.

The intervener followed a structure for each of the four sessions as follows: summarized previous session, introduced new principles with unit material, discussed principles of the unit, discussed participant's reflection on his or her personal story and responses to principles, and presented the handouts summarizing the principle points of the

unit and providing topics for reflection between sessions. The treatment manual is available from the second author upon request.

To assess treatment fidelity, a professional counselor trained in the forgiveness process model listened to a random selection of audio-taped sessions, evaluating whether the intervener was unbiased in the interactions and was adhering to the goal of the unit as specified in the treatment manual. All ratings were consistent with the program manual and with professional counselor standards, with 100% reliability being found.

Control Group Procedure

The intervener contacted the control group participants once-weekly during the time their matched pair participant was completing the intervention. Contact occurred by telephone and lasted approximately 15 minutes. Although we did not measure time precisely, all phone calls were relatively close to the goals specified. The rationale for the support condition was to provide an ethical option for attending to the concerns and hurts of participants randomly assigned to this group. It was believed that a no-contact control group procedure, withholding treatment, would have been inappropriate for this study. Contact in the form of support during the four-week period included discussion of the timeline for beginning the intervention, addressing questions or concerns regarding the study, and to offer emotional support regarding concerns raised by the participant. Once the matched experimental participant completed forgiveness therapy, the control participant began the intervention.

RESULTS

Demographic Characteristics

All twenty participants included in the study completed the intervention. Participants included 18 (90%) females and 2 (10%) males; nineteen (95%) were European-American, and one (5%) participant was of Arabic descent. The age range was 62 to 84 years (m=73, s.d.=7.36 years). The majority of participants (N=18, 90%) reported family members as the person who had deeply and unfairly hurt them; nine (47%) identified a spouse, three (16%) a mother, three (16%) an adult child, two (11%) a sibling, one (1%) a grandfather, and two (10%) identified a friend as the injurer. The majority of hurts described by participants centered on family tensions and unresolved interpersonal conflicts. Twelve participants (60%) indicated that the injurer was no longer living, while eight participants (40%) reported their injurer as still alive. The time of the injury occurrence ranged from 3 to 50 years.

Physical Function

If one group was significantly higher on physical functioning, then this might signal unequal groups. The physical function scale showed that the groups were well-balanced on physical functioning. Scores of the experimental group were 1.30 (s.d. 1.25) at pretest, 1.40 (s.d. 1.26) at posttest, and 1.50 (s.d. 1.35) at follow-up. Scores of the control group were 1.10 (s.d. 0.99) at pretest, 1.20 (s.d. 0.92) at posttest, and 1.30 (s.d. 0.82) at follow-up. Two t-tests were conducted to investigate the similarity of the two groups on physical functioning. First, the two groups' pretest scores were compared. This test was not significant, $t = 0.40$; $p = 0.70$, indicating the two groups were similar when the experimental group started the intervention. Second, the experimental group's pretest score was compared to the control-turned-experimental group's test score that preceded the

group's participation in forgiveness therapy. This test was not significant, $t = 0.20$; $p = 0.84$, indicating the two groups' scores directly preceding forgiveness therapy did not differ. Thus scores and changes in scores were similar and showed the inherent balance between the two groups.

Intervention Outcomes

Means and standard deviations for all dependent measures for both the intervention group and the waitlist control group are reported in Table 1. The bottom portion of Table 1 presents comparison data from either normative groups or samples from similar populations as the participants in this study. Analyses of group differences were conducted separately for each of the four dependent measures with one-tailed change score t-tests, following the statistical precedent set in other studies [19-20, 22, 24]. The mean and standard deviation were based upon the individual change for all dependent measures. Change scores were derived by subtracting the score on a specific measure at one testing time of interest from the score on the same measure at another testing time of interest.

The first between-group comparison examined the change scores from pretest to posttest 1 for the original forgiveness therapy group versus the control group. We hypothesized that the forgiveness therapy participants would demonstrate significantly greater change toward psychological well-being than the control group on each measure. The hypothesis was supported with forgiveness therapy participants showing significantly greater change in the expected directions on all dependent measures: forgiveness, hope, quality of life, and reduction in anger. See Table 2 for the statistical results.

The second comparison examined the mean change scores on each dependent variable between control group participants (first four weeks) and themselves as control-turned-experimental participants (second four weeks). We hypothesized that the participants, once they had forgiveness therapy, would demonstrate significant improvement in psychological health compared with themselves as a control group. Significant differences were found on all measures, as seen in Table 2.

The third comparison examined the mean change scores of experimental participants from pretest to posttest 1 versus the mean change scores of the control-group-turned-experimental participants from posttest 1 to posttest 2. Our hypothesis was that no significant differences would be found as we were comparing the two groups after each had received the same intervention. No significant differences were found on any of the dependent measures (see Table 3), indicating that the two groups appeared to have benefited similarly from the intervention.

The fourth comparison hypothesized that no significant differences would be found when comparing experimental participant's change from pretest to posttest 2 (follow-up test) versus control-turned-experimental participants' change from posttest 1 (pre-intervention) to posttest 2 (following forgiveness therapy). Results supported this hypothesis (see Table 3), in that no statistically significant differences were found. These findings indicate that the pattern of results obtained by the original forgiveness therapy participants at the completion of the first four-week intervention was maintained over the next four weeks (without intervention) and comparable to the effects experienced by original control group participants immediately following their forgiveness therapy.

DISCUSSION

Emotional Health

The results provide initial evidence of the effectiveness of an intervention to promote forgiveness and emotional health for older adults at the end of life. Both forgiveness therapy groups (the original experimental and the control-turned-experimental groups) significantly improved in forgiveness, hope, and quality of life and significantly reduced in anger. The original forgiveness therapy group participants maintained the gains in psychological health four weeks after the intervention. The results are encouraging and illustrate the potential psychological benefits of choosing forgiveness and also support the previous findings of other empirically-based forgiveness interventions [19-22, 24, 45].

Relative to previously published studies, we can see that the program had a positive impact. For example, the participants who engaged in forgiveness therapy moved to a forgiveness score of approximately 283 after intervention, which is higher than the normative average of 259 [36]. Although no known forgiveness therapy research provides a similar group in which to compare the observed posttest scores on the EFI, participants' posttest EFI scores in this study were comparable to the posttest results for participants in studies with different populations. For example, with a sample of emotionally abused women the mean posttest score was 252.50 [45] and with adults in an in-patient drug rehabilitation facility the mean EFI posttest score was 280.15 [24]. The results for anger showed that the participants went from the 97th percentile in anger to the 68th percentile after forgiveness therapy, within the normal range [37]. Many factors can contribute to anger in terminally-ill cancer patients and the results of this study indicate the intervention

program was able to bring participants' anger to a normal level. A pattern of no change, rather than decline, from pretest to posttest in the control group on many of the dependent variables may be caused by the hope that they were soon to receive the forgiveness treatment. The no-change pattern in forgiveness interventions is typical [20, 45].

Length of Intervention

What is somewhat surprising is the effectiveness of a four-week therapy program, when previous research using college student samples suggests that short-term forgiveness therapy is not particularly effective [35]. This is the shortest of all forgiveness therapy interventions conducted with the process model [8]. In previous research, interventions were generally 12 weeks [21-22, 24]. A study with female incest survivors [20] receiving individual therapy lasted 14 months.

Butler's insights may explain why promising results were observed with such a short-term approach. As Butler [27-28] states, the life review occurs at life's end and can be accelerated relative to the amount of time a person has left. All participants in this study knew they were terminally-ill with cancer. This, in all likelihood, may have led them to more intensive concentration, learning, and higher motivation to change than is the case with more healthy samples. As Koocher [1] argued, terminally-ill cancer patients seem to represent a psychologically unique group. We should be careful not to underestimate such patients' cognitive abilities and their abilities to find psychological closure through forgiveness. Given the declining health of each participant, and the effect sizes of the results here, their psychological accomplishments are noteworthy.

Improved Well-Being During Physical Decline

A paradoxical finding is that self-reported quality of life was statistically increasing while physical markers of health were declining. It seems that as terminally-ill cancer patients learn to forgive another for a perceived substantial hurt, generalized psychological health ensues. We see this in the Quality of Life Scale that assesses psychological and existential well-being and positive social support (as well as physical quality). As reported in this study and in a meta-analysis [35], as people forgive, their anger is reduced, allowing for improved psychological well-being and perhaps even improved relationships, although the latter was not assessed here. The idea that psychological well-being is enhanced with forgiveness is supported further by the significant improvement that occurred in the hope variable. The findings here are consonant with the goals of palliative care professionals, in that the intervention enhanced emotional health in the face of physical decline [3].

Strength of Results

An important test of the value of the intervention is an examination of the effect sizes. Conventionally, effect sizes are reported for between-group analyses. The top portion of Table 2 reports effect sizes for comparisons between the forgiveness therapy group and the control group on each variable. These should be regarded as the actual effect sizes found in this study. The bottom portion of Table 2 also reports effect sizes for each variable within the control group and the control-group-turned experimental. These are provided as a comparison to the effect sizes of the initial intervention group.

Because of the temptation to highlight only those dependent measures showing expected results, the most rigorous test is to aggregate all dependent measures for an estimation of the magnitude of the overall impact of the intervention. We used effect size

calculations following the meta-analytic procedures outlined by Hedges and Olkin [46]. The results were an effect size of 1.87 (95% confidence interval of 1.45, 2.52). Additionally, a test of homogeneity proved positive, revealing that the results across the different dependent measures can be considered together, and were not diffuse from one another. Importantly, however, an adjustment is necessary given the known phenomenon of correlation of measures [35, 47]. With this adjustment, a more conservative estimate of the effect size is 1.57. Given that the seminal study of Lambert and Bergin [48] estimated the standard magnitude of effective psychological treatments as a 0.8 effect size, these results are robust indicating forgiveness therapy may provide a valuable addition to a terminally-ill cancer patient's overall treatment plan.

Forgiveness Therapy within Palliative Care

Practitioners and researchers for over 30 years [12, 49-50].have described the psychological issues terminally-ill cancer patients experience and the importance of psychotherapeutic care. Recently, scholars have begun articulating intervention strategies and disseminating initial intervention results [12, 51]. Forgiveness therapy addresses anger and is associated with emotional health [8, 35] making it well-suited to the needs of terminally-ill cancer patients [1, 3].

To date, most scientifically-evaluated palliative care interventions have not used research designs that employ random assignment of participants to groups [52] or focus primarily on physical pain management rather than psychological improvement [53]. This study addressed both and demonstrated a significant impact on emotional health providing important initial evidence that forgiveness therapy can help terminally-ill cancer patients.

Previous scholarly work on forgiveness and with terminally-ill cancer patients can guide future research by suggesting additional outcome variables and additional ways to integrate forgiveness into therapy. Many scientific studies testing the efficacy of forgiveness interventions assess depression and anxiety [35]. Future studies with terminally-ill cancer patients may consider including such measures. Koocher [1] argued that cancer oftentimes involves the potential for guilt and conflict among family members and Bloch and Kissane [51] provide initial evidence family therapy can improve family functioning when a family member has terminal cancer. Future research may consider integrating forgiveness education into family therapy and investigating the emotional health of both individual family members and the functioning of the family unit.

Limitations

Limitations of this research include the somewhat small sample size (although statistical power was more than adequate based upon the findings here, previously published studies, and Cohen's [34], guidelines) and the possibility of experimenter effects. The intervener was not blind to patients' group membership and believed in the efficacy of the forgiveness therapy. It should be noted that this type of research is quite time consuming which may pose difficulties for replication. The consistency of findings with those obtained in studies with elderly women [19], incest survivors [20], parentally love-deprived adolescents [2l], post-abortion men [22], married couples [23], adults in drug and alcohol treatment [24], and divorced individuals [25] suggest that forgiveness interventions can be effective with various populations and differing experimenters. As Wampold *et al.* [47] state for all specific psychological interventions, which would include forgiveness

therapy, the results are probably inextricably bound with the knowledge, motivation, and skill of the intervener. In other words, it is unlikely that the results found here would be replicated by a therapist who was not convinced of the viability of forgiveness therapy.

An important goal of palliative care therapy, improving psychological health at the end of life, appears to have been achieved in this study. Older adults, in the last stage of life because of terminal cancer, who experience emotional disruption because of perceived injustices, may benefit psychologically from forgiveness therapy. At the same time, effective psychological treatment must not be used as an excuse to medically abandon patients [(54)]. As part of a comprehensive intervention of palliative care, forgiveness therapy may be effective for improving quality of life at the end of life.

References

1. Koocher GP. Coping with a death from cancer. J Consult Clin Psychol 1986; 54(5): 623-631.

2. Viney LL, Walker BM, Robertson T, Lilley B. Dying in palliative care units and in hospital: A comparison of the quality of life of terminal cancer patients. J Consult Clin Psychol 1994; 62(1): 157-164.

3. Christensen AJ, Ehlers SL. Psychological factors in end-stage renal disease: An emerging context for behavioral medicine research. J Consult Clin Psychol 2002; 70(3): 712-724.

4. Agrawal M, Emanuel EJ. Attending to psychologic symptoms and palliative care. J Clin Oncol 2002; 20(3): 624-626.

5. Cassel EJ. The nature of suffering and the goals of medicine. N Engl J Med 1982; 306(11): 639-645.

6. Byock IR. The nature of suffering and the nature of opportunity at the end of life. Clin Geriatr Med 1996; 12(2): 237-252.

7. Justice B. Critical life events and the onset of illness. Compr Ther 1994; 20(4): 232-238.

8. Enright RD, Fitzgibbons RP. Helping clients forgive: An empirical guide for resolving anger and restoring hope. Washington, DC, US: American Psychological Association; 2000.

9. Herth K. Fostering hope in terminally-ill people. J Adv Nurs 1990; 15: 1250-1259.

10. Cohen SR, Mount BM, Strobel MG, Bui F. The McGill quality of life questionnaire: A measure of quality of life appropriate for people with advanced disease: A preliminary study of validity and acceptability. Palliat Med 1995; 9(3): 207-219.

11. Cohen SR, Mount BM, Bruera E, Provost M, Rowe J, Tong K. Validity of the McGill quality of life questionnaire in the palliative care setting: A multi-centre Canadian study demonstrating the importance of the existential domain. Palliat Med 1997; 11(1): 3-20.

12. Institute on Medicine. Cancer care for the whole patient: Meeting psychosocial health needs. Washington DC, US: National Academics Press; 2008.

13. Murrant GM, Rykov M, Amonite D, Loynd M. Creativity and self-care for caregivers. J Palliat Care 2000; 16(2): 44-49.

14. Milberg A, Rydstrand K, Helander L, Friedrichsen M. Participants' experiences of a support group intervention for family members during ongoing palliative home care. J Palliat Care 2005; 21(4): 277-284.

15. Duggleby W, Wright K, Williams A, Degner L, Cammer A, Holtslander L. Developing a living with hope program for caregivers of family members with advanced cancer. J Palliat Care 2007; 23(1): 24-31.

16. Porock D, Kristjanson L, Tinnelly K, Duke T, Blight J. An exercise intervention for advanced cancer patients experiencing fatigue: A pilot study. J Palliat Care 2000; 16(3): 30-36.

17. Nicholson K. Weaving a circle: A relaxation program using imagery and music. J Palliat Care 2001; 17(3): 173-176.

18. MacDonald SM, Sandmaier R, Fainsinger RL. Objective evaluation of spiritual care: A case report. J Palliat Care 1993; 9(2): 47-49.

19. Hebl J, Enright RD. Forgiveness as a psychotherapeutic goal with elderly females. Psychother: Theory, Res, Pract, Train 1993; 30(4):658-667.

20. Freedman SR, Enright RD. Forgiveness as an intervention goal with incest survivors. J Consult Clin Psychol 1996; 64(5): 983-992.

21. Al-Mabuk RH, And Others. Forgiveness education with parentally love-deprived late adolescents. J Moral Educ 1995; 24(4): 427.

22. Coyle CT, Enright RD. Forgiveness intervention with postabortion men. J Consult Clin Psychol 1997; 65(6): 1042-1046.

23. Ripley JS, Worthington ELJ. Hope-focused and forgiveness-based group interventions to promote marital enrichment. J Couns Dev 2002; 80(4): 452-463.

24. Lin W, Mack D, Enright RD, Krahn D, Baskin TW. Effects of forgiveness therapy on anger, mood, and vulnerability to substance use among inpatient substance-dependent clients. J Consult Clin Psychol 2004; 72(6): 1114-1121.

25. Rye MS, Pargament KI, Pan W, Yingling DW, Shogren KA, Ito M. Can group interventions facilitate forgiveness of an ex-spouse? A randomized clinical trial. J Consult Clin Psychol 2005; 73(5): 880-892.

26. Worthington, E. L. (ed), editor. Handbook of forgiveness. Routledge; 2005.

27. Butler RN. The life review: An interpretation of reminiscence in the aged. Psychiatry 1968; 26: 65-75.

28. Butler RN. Progress report. Contemporary long term care. l998.

29. Stanton AL, Danoff-Burg S, Sworowski LA, Collins CA, Branstetter AD, Rodriguez-Hanley A, Kirk SB, Austenfeld JL. Randomized, controlled trial of written emotional expression and benefit finding in breast cancer patients. J Clin Oncol 2002; 20(20): 4160-4168.

30. McCullough ME, Root LM, Cohen AD. Writing about the benefits of an interpersonal transgression facilitates forgiveness. J Consult Clin Psychol 2006; 74(5): 887-897.

31. Fitzgibbons RP. The cognitive and emotive uses of forgiveness in the treatment of anger. Psychother: Theory, Res, Pract, Train 1986; 23(4): 629-633.

32. Justice B. A different kind of health: Finding well-being despite illness. Peak Press; 1998.

33. Phillips LJ, Osborne JW. Cancer patients' experiences of forgiveness therapy. Can J Couns 1989; 23(3): 236-251.

34. Cohen J. Statistical power analysis for the behavioral sciences. Laurence Erlbaum; 1988.

35. Baskin TW, Enright RD. Intervention studies on forgiveness: A meta-analysis. J Couns Dev 2004; 82(1): 79-90.

36. Enright RD, Rique J, Coyle CT. The Enright forgiveness inventory user manual. Madison WI, US: International Forgiveness Institute; 2000.

37. Spielberger CD. State-Trait Anger Expression Inventory, Research Edition. Professional Manual. Odessa, FL, US: Psychological Assessment Resources; 1996.

38. Spielberger CD, Jacobs G, Russell S, Crane R. Assessment of anger: The StateTrait anger scale. In: Butcher JN, Spielberger CD, editors. Advances in personality assessment Vol. 2. Hillsdale, NJ: Lawrence Erlbaum Associates.; 1983. pp. 159-187.

39. Herth K. Abbreviated instrument to measure hope: Development and psychometric evaluation. J Adv Nurs 1992; 17(10): 1251–1259.

40. Herth K. Development and refinement of an instrument to measure hope. Scholarly Inq Nurs Pract 1991; 5(1): 39-51.

41. Oken MM, Creech RH, Tormey DC, Horton J, Davis TE, McFadden ET, Carbone PP. Toxicity and response criteria of the Eastern Cooperative Oncology Group. Am J Clin Oncol 1982; 5 (6): 649-655.

42. Buccheri G, Ferrigno D, Tamburini M. Karnofsky and ECOG performance status scoring in lung cancer: A prospective, longitudinal study of 536 patients from a single institution. Eur J Cancer 1996; 32A(7): 1135-1141.

43. Enright RD. Forgiveness is a choice: A step-by-step process for resolving anger and restoring hope. Washington, DC, US: American Psychological Association; 2001.

44. North J. Wrongdoing and forgiveness. Philos 1987; 62: 499-508.

45. Reed GL, Enright RD. The effects of forgiveness therapy on depression, anxiety, and posttraumatic stress for women after spousal emotional abuse. J Consult Clin Psychol 2006; 74(5): 920-929.

46. Hedges LV, Olkin I. Statistical methods for meta-analysis. Academic Press; 1985.

47. Wampold BE, Mondin GW, Moody M, Stich F, Benson K, Ahn H. A meta-analysis of outcome studies comparing bona fide psychotherapies: Empiricially, 'all must have prizes.'. Psychol Bull 1997; 122(3): 203-215.

48. Lambert MJ, Bergin AE. The effectiveness of psychotherapy. Bergin AE and Garfield SL, editors. Oxford, England: John Wiley & Sons; 1994.

49. Thomas JM, Weiner EA. Psychological differences among groups of critically ill hospitalized patients, noncritically ill hospitalized patients, and well controls. J Consult Clin Psychol 1974; 42(2): 274-279.

50. Stedeford A. Psychotherapy of the dying patient. Br J Psychiatry 1979; 135: 7-14.

51. Bloch S, Kissane D. Psychotherapies in psycho-oncology: An exciting new challenge. Br J Psychiatry 2000; 177: 112-116.

52. London MR, McSkimming S, Drew N, Quinn C, Carney B. Evaluation of a comprehensive, adaptable, life-affirming, longitudinal (CALL) palliative care project. J Palliat Med 2005; 8(6): 1214-1225.

53. Arnold R. Expanding the tools used to promote palliative care. J Palliat Med 2005; 8(6): 1086-1088.

54. Han PKJ, Arnold RM. Palliative care services, patient abandonment, and the scope of physicians' responsibilities in end-of-life care. J Palliat Med 2005; 8(6): 1238-1245.

Table 1

Means and Standard Deviations for Dependent Variables

Experimental Group

	Time 1, Pretest n = 10	Time 2, Posttest n = 10	Time 3, Follow-up n = 10
Forgiveness	149.50 (37.54)	276.20 (48.22)	283.00 (44.63)
Anger	23.10 (4.51)	13.40 (2.91)	12.40 (2.27)
Hope	31.70 (3.09)	38.70 (5.89)	38.40 (5.46)
Quality of Life	66.24 (21.76)	97.28 (28.48)	92.48 (21.92)

Wait List Control Group

	Time 1, Pretest 1 n = 10	Time 2, Pretest 2 n = 10	Time 3, Posttest n = 10
Forgiveness	151.00 (55.75)	138.70 (33.12)	284.00 (23.61)
Anger	26.60 (7.73)	25.60 (7.12)	12.00 (2.11)
Hope	27.90 (6.57)	27.70 (6.45)	39.40 (6.92)
Quality of Life	57.12 (27.68)	64.00 (27.36)	94.24 (22.24)

Normative or Comparison Data

	Mean	s.d. or percentile	N	Sample
Forgiveness	278*	50th percentile	406	Normative sample of adults [33]
Anger	12.82*	4.83	4062	Normative sample of adults [34]
Hope	32.19	10.03	31	Terminally-ill adults [36]
Quality of Life	76.80	14.40	40	Adults with advanced cancer [39]

- Separate norms were reported by gender. The data here correspond to the norms for women because 90% of the sample was women. Comparison data are presented when norms are not available.

Table 2
Dependent Variable Gain Scores: Experimental versus Control

Experimental and Control Group Change Comparison from Pretest to Posttest 1

	Experimental Group	Wait List Control Group	T – value	Effect Size
	Gain Score	Gain Score	t	d
Forgiveness	126.70 (44.27)	-12.30 (28.44)	7.34***	3.18 (.67)
Anger	-9.70 (5.23)	-1.00 (1.41)	-5.10***	2.15 (.56)
Hope	7.00 (3.77)	-0.20 (1.48)	4.63***	1.71 (.52)
Quality of Life	1.94 (1.55)	0.43 (0.49)	3.12**	1.14 (.48)

** p < .01, *** p < .001

Wait List Control Group Changes Versus Control Group-Turned Experimental

	Time 3-Time 2	Time 2-Time 1	T – value	Effect Size
	Gain Score	Gain Score	t	d
Forgiveness	145.30 (33.21)	-12.30 (28.44)	12.91***	4.84 (.89)
Anger	-13.60 (6.31)	-1.00 (1.41)	-6.56***	2.48 (.60)
Hope	11.70 (6.29)	-0.20 (1.48)	5.62***	1.68 (.52)
Quality of Life	1.89 (1.09)	0.43 (0.49)	3.90**	1.16 (.48)

** p < .01, *** p < .001

Table 3

Dependent Variable Gain Scores: Experimental versus Wait-List Turned Experimental

Comparison of Forgiveness Intervention Results (Both Groups Once They Have Forgiveness Therapy)

	Experimental Group Pre to Post 1 Gain Score	Wait List Turned Experimental Group Post 1 to Post 2 Gain Score	T - value t
Forgiveness	126.70 (44.27)	145.30 (33.21)	1.04
Anger	-9.70 (5.23)	-13.60 (6.31)	-2.06
Hope	7.00 (3.77)	11.70 (6.29)	1.96
Quality of Life	1.94 (1.55)	1.89 (1.09)	-0.08

Comparison of Forgiveness Intervention Results (Both Groups Once They Have Forgiveness Therapy, Including Follow-Up)

	Experimental Group Pre to Follow-Up Gain Score	Wait List Turned Experimental Group Post 1 to Post 2 Gain Score	T - value t
Forgiveness	133.50 (37.61)	145.30 (33.21)	0.74
Anger	-10.70 (4.79)	-13.60 (6.31)	-1.40
Hope	6.70 (3.23)	11.70 (6.29)	2.12
Quality of Life	1.64 (1.25)	1.89 (1.09)	0.40