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Beyond the bucket list: Unfinished and business among advanced cancer patients

Melissa P. Masterson[1,2], **Elizabeth Slivjak**[1], **Greta Jankauskaite**[3], **William Breitbart**[1], **Hayley Pessin**[1], **Elizabeth Schofield**[1], **Jason Holland**[4], and **Wendy G. Lichtenthal**[1]

[1]Department of Psychiatry and Behavioral Sciences, Memorial Sloan Kettering Cancer Center, New York, New York [2]Department of Psychology, Fordham University, Bronx, New York [3]Department of Psychology, University of Maryland, College Park, Maryland [4]Lifespark Weekly, Nashville, Tennessee

Abstract

Objective: The study aims to examine the prevalence and common themes of unfinished business (UB) and its associations with distress among advanced cancer patients.

Methods: A total of 223 patients from a larger randomized controlled trial of Individual Meaning-Centered Psychotherapy (IMCP) completed self-report questionnaires that assessed UB and UB-related distress, hopelessness, desire for hastened death, anxiety and depression, quality of life, spiritual well-being, and purpose/meaning. Unfinished business themes were identified by qualitative analysis of open-ended data.

Results: A total of 161 (72%) patients reported the presence of UB. The mean UB-related distress score was 7.01 (SD = 2.1) out of 10. Results of independent *t* tests showed that patients with UB reported significantly higher levels of anxiety and lower levels of existential transcendence than patients without UB. Linear regression equations indicated that UB-related distress significantly predicted hopelessness ($F_{1,154} = 9.54$, $P < 0.05$, $R^2 = 0.058$), anxiety ($F_{1,154} = 4.31$, $P < 0.05$, $R^2 = 0.027$), personal meaning ($F_{1,136} = 6.18$, $P < 0.05$, $R^2 = 0.043$), and existential transcendence ($F_{1,119} = 6.7$, $P < 0.05$, $R^2 = 0.053$). Ten UB themes emerged from open-ended responses; UB themes were not associated with UB-related distress or psychological adjustment.

Conclusions: Unfinished business was both prevalent and distressing in our sample. Findings underscore the need to develop and implement interventions designed to help patients resolve or find solace with UB.

Keywords

cancer; end of life; existential distress; mixed methods; oncology; thematic analysis; unfinished business

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Correspondence Melissa Masterson, MA, Department of Psychology, Fordham University, 441 East Fordham Road, Bronx, NY 10458. mmasterson1@fordham.edu.

CONFLICT OF INTEREST
The authors contributing to this manuscript have no conflict of interest to declare.

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1 | BACKGROUND

"Having a sense that one's life has meaning involves the conviction that one is fulfilling a unique role and purpose in a life that comes with the responsibility to live to one's full potential as a human being."[1] But, what is it to live to one's full potential? Meaning systems provide the framework through which individuals interpret their lives and experiences.[2] Confronted with the finiteness of life, advanced cancer patients are prompted to review their lives in the context of these systems and may determine that they are in a sense, unfinished, or that important goals and dreams have yet to be realized. In the context of advanced disease, this realization can catalyze existential distress. Several researchers have explored existential distress among patients with advanced disease, examining related constructs, such as sense of meaning, demoralization, desire for hastened death, hopelessness, and despair.[3-8] However, the concept of unfinished business (UB) has received less attention.

To date, UB has primarily been studied in bereaved populations. In the context of bereavement, UB is defined as a cognitive process that involves appraising one's relationship with a deceased loved one as incomplete, unexpressed, or unresolved, lacking closure.[9] Early studies identified UB as a relatively common concern and source of distress among the bereaved.[10, 11] A more recent study found that 43% of bereaved undergraduate students endorsed UB, and that most these individuals reported moderate UB-related distress.[12] Unfinished business-related distress, in turn, was associated with several negative outcomes, including regret, anger, guilt, and remorse.[12]

Similar feelings may emerge at the end of life. However, UB among those facing advanced disease is distinguished from UB in bereavement because it may not be related to relationship goals and may be related to life goals outside of relationships or purely intrapsychic. Accompanying distress may be associated with heightened anxiety, hopelessness, depression, and even the desire for hastened death. Therefore, a comprehensive evaluation of UB in this population is warranted to test these theoretical hypotheses.

1.1 | Present study

The present mixed methods study sought to investigate UB in the context of advanced cancer, addressing a gap in the end of life literature. Specifically, we examined the prevalence and thematic content of UB, rates of UB-related distress, and its association with psychological morbidity. We hypothesized that the presence of UB and higher levels of UB-related distress would be associated with increased psychological morbidity. We also explored associations between specific themes of UB and psychological symptoms.

2 | METHOD

2.1 | Procedure

Participants were recruited at a large tertiary cancer center as a part of a larger randomized controlled trial of Individual Meaning-Centered Psychotherapy (IMCP) (NCI01323309). The current study examined baseline, self-report questionnaire data collected pre-

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intervention. All participants provided written informed consent for study participation. Participants were over age 21, English-speaking, and had stage IV solid tumor cancers. Patients were screened using the distress thermometer. Patients who scored 4 on the distress thermometer,[13] a single-item visual analog scale used to screen cancer patients for the presence of psychological distress with a 0 to 10 range, and 60 on the Karnofsky Performance Rating Scale, a scale used by physicians to report patient's level of physical performance on a range of 0 to 100,[14] were eligible to participate. Patients with significant cognitive impairments or psychiatric disturbances were excluded. All study procedures were approved by the Institutional Review Board at the study site (no. 11-021).

2.2 | Measures

Unfinished Business Questionnaire (*UBQ*) is a 3-item measure that asks patients to identify any matters in their lives that are perceived to be unfinished or unresolved using the following question: "Sometimes individuals faced with the threat of cancer become more reflective and think about things that feel unfinished or unresolved in their lives. These can be things they wish to do or accomplish in a certain area of their lives (e.g., relationships, work, projects, travel), or perhaps things they wish to repair or make amends for in a relationship, but have not yet done. Do you feel that anything is unfinished or unresolved in your life?" Participants who respond "yes" are then asked to describe the most troubling example of unfinished or unresolved business in their lives, and to rate their level of UB-related distress related to this example on a 10-point scale from "1" (*not at all distressed*) to "10" (*extremely distressed*).[15]

Hopelessness Assessment in Illness (*HAI*) is a brief 8-item questionnaire developed to assess hopelessness in cancer patients with advanced disease and terminal illness (range 0-16).[16] The HAI has demonstrated a high degree of internal consistency (Cronbach's = 0.80) and construct validity (eg, $r = 0.74$ with clinical ratings of hopelessness). The HAI demonstrated incremental validity over and above existing measures of hopelessness, such as the Beck Hopelessness Scale, which has been used in previous research with advanced cancer patients.[17, 18]

McGill Quality of Life Questionnaire (*MQOL*) is a brief self-report instrument designed to assess various domains of psychological, spiritual, and physical functioning among terminally ill cancer patients.[19] Patients rate their current functioning on a scale from "0" to "10." The physical and psychological domains of the MQOL are highly correlated with other measures of quality of life, although the existential/spiritual domain assessed by this measure has not typically been included in other quality of life measures. This measure has demonstrated reliability (Cronbach's > 0.70 for the subscales), and adequate levels of concurrent validity (eg, $r = 0.34$ with the Spitzer Quality of Life Index).

The Hospital Anxiety and Depression Scale (*HADS*) is a 14-item self-rated questionnaire, which has been well tested as a measure of overall psychological distress in cancer patients (range 0-42).[20] The HADS includes depression (HADS-D) and anxiety (HADS-A) subscales of seven items each (range 0-21). The HADS is considered particularly useful because of the absence of somatic items that often confound the determination of psychiatric

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problems among the medically ill. Strong test-retest reliability has been found in samples of elderly patients[20] and HIV positive patients.[21]

The Schedule of Attitudes toward Hastened Death (*SAHD*) is a 20-item questionnaire (range 0-20) developed as a self-report measure of interest in hastened death.[22] The measure has demonstrated high levels of reliability (Cronbach's $t = 0.88$ and median item-total $r = 0.43$) with terminal cancer and HIV/AIDS patients. In addition, the SAHD has demonstrated concurrent validity, $r = 0.88$ with the clinician-rated Desire for Death Rating Scale.[23]

The Life Attitude Profile-Revised (*LAP-R*) is a 48-item self-report multidimensional measure of discovered meaning and purpose in life and the motivation to find meaning and purpose in life.[24] Items are rated on a 7-point Likert-type scale of agreement. The LAP-R evaluates six dimensions: purpose, coherence, life control, death acceptance, existential vacuum, and goal seeking and are used to calculate two composite subscales: the Personal Meaning Index (having goals and a sense of direction) and existential transcendence (degree to which meaning and purpose has been discovered) (range 8-56). The LAP-R has high internal consistency (Cronbach's ranging from 0.77 to 0.91; 24).

FACIT Spiritual Well-Being Scale (*FACIT-Sp*) is a brief self-report measure designed to assess the nature and extent of individual's spiritual well-being.[25] This measure, which generates two subscales: Faith (the importance of faith/spirituality) and Meaning/Peace (sense of meaning and purpose in life) (range 0-4), has been demonstrated to have strong internal reliability for both the total score and each subscale (Cronbach's = 0.87 for the total scale, 0.88 for the faith factor and 0.81 for the meaning factor). In addition, strong support for the external validity of this measure has been demonstrated in several large samples of cancer and AIDS patients including patients with advanced and terminal illness.[6, 25, 26]

2.3 | Data analysis

T tests and chi-square tests were used to examine associations between presence/absence of UB and sociodemographic variables (eg, gender). Regression analyses were conducted to examine the relationship between sociodemographic variables and UB-related distress, which was treated as a continuous dependent variable. Linear regression analyses were also conducted to examine the unique relationship between UB variables and variables (eg, anxiety and depression), controlling for related demographic variables identified by previous analyses.

Secondary analyses included the exploration of types of UB reported by patients using qualitative data analysis of open-ended responses from the UBQ. Participants' written responses were organized into distinct units by the first author. These units were defined as segments of responses that captured a distinct aspect of the UB. Two overarching themes and eight distinct subthemes were then developed by M.M. and W.G.L. to categorize each of the UB units. To address bias, three independent coders (M.M., E.S., and G.J.) coded the UB units. For each thematic category, we calculated the number of times that the item was offered by a patient. Ten variables were created (one for each theme) by assigning a value of 0 (*no*) or 1 (*yes*) to indicate whether a participant gave a response that fell into a given

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category. To explore the relationships between the thematic categories and UB-related distress and other psychological adjustment variables, analyses of variance tests were used.

3 | RESULTS

3.1 | Participants

Participants were 223 advanced cancer patients, most whom were female (72%), Caucasian (81%), and college educated (Mean years of education = 16.6; SD = 2.6). The age of patients ranged from 25 to 84 with a mean of 57.8 years (SD = 10.8). Participant characteristics are presented in Table 1

3.2 | Prevalence and correlates of UB and UB-related distress

Of the 223 participants who responded to the UB items, 161 (72%) reported the presence of UB. Levels of distress related to these issues were moderately high (M = 7.01, SD = 2.1), with 45% providing a distress rating of "8" or above on the 10-point rating scale. *T* tests and chi-square tests were used to examine associations between the presence of UB and sample background characteristics (see Table 2). The only significant association was between presence of UB and gender ($\chi^2(1) = 5.74$, $P < 0.05$), showing that women were more likely to endorse the presence of UB (76.9%) than men (59.7%). Linear regression equations were used to examine the relationship between UB-related distress and sample background characteristics. There were no significant relationships identified between UB-related distress and sociodemographic variables (see Table 2).

3.3 | Associations between UB and UB-related distress and psychological adjustment

Linear regression equations, controlling for the effect of associated demographic variables (gender), were performed to assess the relation between presence/absence of UB and outcome variables (see Table 1). Results showed that the presence of UB significantly predicted HADS-A scores ($F_{2,219} = 8.93$, $P < 0.01$, $R^2 = 0.075$). Furthermore, the presence of UB predicted a significant decline in existential transcendence scores ($F_{2,165} = 4.17$, $P < 0.05$, $R^2 = 0.048$). Linear regression analysis was used to test if UB-related distress significantly predicted participants' psychological adjustment (see Table 3). Unfinished business-related distress was significantly associated with HAI scores ($F_{1,154} = 9.54$, $P < 0.01$, $R^2 = 0.058$) and with HADS-A scores ($F_{1,154} = 4.31$, $P < 0.05$, $R^2 = 0.027$). Finally, UB-related distress was significantly related to indices of the LAP-R ($F_{1,136} = 6.18$, $P < 0.05$, $R^2 = 0.043$) and ($F_{1,119} = 6.7$, $P < 0.05$, $R^2 = 0.053$) (Personal Meaning Index and Existential Transcendence Index, respectively).

3.4 | Themes of UB

Participants who identified the presence of UB and provided descriptive responses produced 236 "meaning units." Interrater reliability for the three independent coders was strong (0.92 agreement). For the remaining meaning units, consensus was reached by all three coders, and UB themes were assigned (see Table 4). Two overarching themes were identified: (1) unfinished business and (2) unresolved business. Unfinished business is defined as business "not finished or concluded; incomplete," while unresolved business is defined as "a problem, question, or dispute not resolved." Eight distinct themes of UB were identified: (1) family-

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related goals and responsibilities (25.4%), (2) relationships (17.8%), (3) meaningful activities/personal goals (16.5%), (4) professional work (11.4%), (5) organization of home and affairs (10.6%), (6) travel (7.6%), (7) legacy/pursuit of purpose (4.7%), and (8) distress/worry (4.7%). A total of 3 (1.3%) meaning units were deemed “too vague” to assign a UB theme and were excluded from thematic analyses. One-way analyses of variance showed no significant differences in UB-related distress between the two overarching themes (UB and unresolved business) or any of the eight specific themes.

4 | CONCLUSIONS

This study examined the prevalence and themes of UB, as well as associated psychosocial outcomes in a sample of advanced cancer patients. Over 70% of the sample reported the presence of UB, with nearly half (45%) providing a distress rating of “8” or above on the 10-point rating scale. These results suggest that UB is not only common but also carries substantial distress. Furthermore, our results identified significant associations between UB, UB-related distress, and psychological adjustment. Patients who reported UB demonstrated significantly higher levels of anxiety and significantly lower existential transcendence scores than patients who did not report UB. Furthermore, UB-related distress emerged as a significant predictor of several psychosocial outcomes, including increased hopelessness and anxiety, as well as diminished personal meaning and existential transcendence. These findings are consistent with those from a recent mixed method analysis of 224 bereaved individuals,[12] which found that both the presence of and distress related to UB were associated with indicators of poor psychological adjustment, including more severe prolonged grief symptoms, more severe psychiatric distress, and decreased ability to make meaning of their loss.[12] Given the cross-sectional nature of these studies, it is difficult to determine the causal nature of the relationship between UB-related distress and psychological functioning. It may be that increased anxiety and hopelessness color patients' perception of their potential to find meaning and fulfillment in the future. However, it could also be true that with a life-limiting illness and uncertain future, the presence of UB and its' related distress may result in heightened anxiety, hopelessness, and existential distress. Unfinished business and UB-related distress were not related to MQOL scores. We hypothesize that the high symptom burden reported by some patients may have skewed total MQOL. It is likely that these skewed scores contributed to this insignificant finding, as we would otherwise expect UB and UB-related distress to be associated with overall quality of life.

Overall, our results illustrate the significant relationship between UB and distress, namely, existential distress, at the end of life. Existential distress has been defined as distress “characterized by hopelessness and helplessness due to a loss of purpose and meaning.”[27] Patients with advanced disease must grapple with an uncertain future and limited time to achieve their goals, organize their affairs, mend broken relationships, and enjoy time with loved ones. This awareness that time is limited, may prompt a patient to review his/her life, placing particular emphasis on the wrongs of the past and incomplete life tasks and aspirations for the future.[28] It appears that the awareness that valued activities are incomplete and that completion is unlikely, if not impossible, results in moderate to severe UB-related distress. This finding is supported by research, which shows that individuals with

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serious and terminal illnesses report that their psychosocial illness-related concerns and physical/functional illness-related concerns are equally important.[28] Two overarching and eight specific UB themes were identified from open-ended UB responses; however, we did not identify significant differences in UB-related distress or psychological adjustment between themes. Hence, existential distress at the end of life may be unrelated to the content of the UB (ie, family goals and responsibilities and travel), but driven by the distress related to the presence of UB in general.

Overall, our findings highlight the significant, and deleterious impact that the presence of UB and UB-related distress has on end of life outcomes for advanced cancer patients.

4.1 | Limitations and future directions

Although this study is among the first to examine UB in an advanced cancer population, it has several limitations that should be noted. The cross-sectional design of the study limits our ability to determine causal relationships. Although conducting longitudinal research with end of life populations can be challenging, research that improves our understanding of the temporal relationship between UB and psychological morbidity is critical. The study is also limited by the use of a self-report measure of UB. The qualitative data analyzed in this study was derived from an open-ended self-report item that prompted patients to describe their most distressing example of UB. Because of the way the question was phrased, in several instances, it was difficult to determine whether participants were referring to UB or unresolved conflicts. Because of this design, a small number of responses (n = 3) were deemed too vague to categorize and were excluded from thematic analyses. To improve the richness of the data, future studies would benefit from using items that distinguish these two concepts and semistructured interviews with patients to obtain information about UB and UB-related distress. Specifically, it may be important to obtain information about the nature of UB-related distress to better understand the potential cognitive and affective characteristics. Additional limitations include the use of a relatively racially and ethnically homogenous sample of patients who agreed to enroll in an intervention trial and who screened in with at least moderate levels of general distress and who were ambulatory. The characterization of UB in this study should be interpreted with these limitations in mind.

4.2 | Clinical implications

A diagnosis of advanced cancer often prompts patients to reflect on their lives, bringing wishes, regrets, and assessments of satisfaction to the fore. Unfinished business-related distress emerged as the most powerful predictor of a breadth of psychological challenges including anxiety, hopelessness, and existential distress. In the context of bereavement, the area in which UB has been studied most extensively, UB-focused work is an inherently reactive approach. However, in the context of advanced cancer, it is possible for patients to take proactive steps toward addressing and potentially resolving UB and coping with UB-related distress.

As the scope of end of life cancer care has extended beyond symptom and pain control, increased attention has been focused on improving the quality of life of patients. Specifically, psychosocial interventions designed to address the existential and spiritual

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concerns that characterize the illness experience have been developed. These therapeutic approaches conceptualize meaning and existential transcendence as not only important but also central to intervention at the end of life.[29] Our results show that patients experiencing significant UB-related distress are also more likely to be suffering with a loss of meaning, value, purpose, and hope. For these patients, existential psychotherapies that aid patients in making meaning of their lives and engaging in meaning-making coping efforts may be particularly effective in reducing UB-related distress.[2,3]

The utilization of an existential framework may be particularly powerful among advanced cancer patients presenting with UB. Viktor Frankl's basic concept that life has meaning and never ceases to have meaning, even up to the last moment of life, may be particularly powerful in helping patients recognize existing opportunities for resolving UB.[4] Furthermore, the conceptualization of meaning as a dynamic state in which patients can move from feeling hopeless to recognizing their personal sense of meaning and purpose, invites them to consider themselves as agents of change in their lives.[2, 3, 30]

Individual Meaning-Centered Psychotherapy is one such intervention that aims to help patients optimize coping through the pursuit of enhanced meaning and purpose.[1] Meaning-Centered Psychotherapy may help an individual with UB recognize that although time to complete life tasks is limited, there is the potential to find meaning, and that the will and choice to seek fulfillment is in and of itself meaningful, regardless of the outcome. Dignity Therapy is a brief, individualized intervention, similarly designed to foster a sense of meaning and purpose, thereby reducing existential distress at the end of life.[23] Through engagement in Dignity Therapy, patients are invited to discuss the issues that matter most to them and those that they want to be remembered at the end of life.[23] By way of sharing their lives, patients have the opportunity to view their story from a unique vantage point, which can facilitate meaning-making and highlight personal successes, in which they can take pride. These meaning-making interventions may assist patients in “rewriting” their stories in order to reconcile areas unresolved, highlight courageous choices made in the face of limitations, and enhance the significance of the life that has been lived. Therefore, engagement in these interventions may help to renew one’s sense of value and purpose and reduce distress regarding the unknown future. Furthermore, a growing body of research has provided support for the efficacy of forgiveness enhancing interventions to help individuals make meaning of adverse life events.[31-33] Particularly in the context of UB-related to strained and fractured relationships, the employment of forgiveness promoting strategies may be particularly beneficial.

Although the end of life often holds the opportunity for addressing UB proactively, our thematic analysis highlighted that there are some life tasks that are very challenging to complete. However, our results also demonstrate that UB-related distress is a more significant driver of psychological morbidity than the sole presence of UB. Hence, individuals presenting UB that cannot be changed and severe UB-related distress may find acceptance-based therapies particularly valuable.[34] The role of the clinician in facilitating acceptance and self-compassion regarding choices made in the past may be critical in reducing UB-related distress. Furthermore, particularly when addressing the UB may involve the need to communicate with someone unavailable, interventions commonly used in

bereavement may prove effective. For example, clinicians can employ the empty chair method, letter-writing exercises, or guided imaginal conversations in order to help a patient attain a sense of closure or resolution that would not otherwise be possible.[35, 36]

In conclusion, results from the present study demonstrate the high prevalence of UB and the severity of UB-related distress among advanced cancer patients. UB and UB-related distress also predict a range of psychological challenges at the end of life including anxiety, hopelessness, and existential distress. Hence, UB should be a critical target of intervention aimed to reduce existential distress and improve well-being at the end of life. Existential, narrative, and acceptance-based interventions hold promise for reducing UB-distress and associated outcomes for patients and their loved ones.

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REFERENCES

1. Breitbart WS, Poppito SR. Individual Meaning-centered Psychotherapy for Patients with Advanced Cancer: A Treatment Manual. USA: Oxford University Press; 2014.
2. Park CL. Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. Psychol Bull. 2010 3;136(2):257–301. [PubMed: 20192563]
3. Folkman S, Moskowitz JT. Positive affect and the other side of coping. Am Psychol. 2000 6;55(6): 647–654. [PubMed: 10892207]
4. Frankl VE. Man's Search for Meaning. New York, NY: Simon and Schuster; 1985.
5. Kissane DW, Clark DM, Street AF. Demoralization syndrome—a relevant psychiatric diagnosis for palliative care. J Palliat Care. 2001 4 1;17(1):12–21. [PubMed: 11324179]
6. Breitbart W, Rosenfeld B, Pessin H, et al. Depression, hopelessness, and desire for hastened death in terminally ill patients with cancer. JAMA. 2000 12 13;284(22):2907–2911. [PubMed: 11147988]
7. Bernard M, Strasser F, Gamondi C, et al. Relationship between spirituality, meaning in life, psychological distress, wish for hastened death, and their influence on quality of life in palliative care patients. J Pain Symptom Manage. 2017 10 1;54(4):514–522. [PubMed: 28716616]
8. Robinson S, Kissane DW, Brooker J, Hempton C, Burney S. The relationship between poor quality of life and desire to hasten death: a multiple mediation model examining the contributions of depression,demoralization, loss of control, and low self-worth. J Pain Symptom Manage. 2017 2 1;53(2):243–249. [PubMed: 27744017]
9. Holland JM, Thompson KL, Rozalski V, Lichtenthal WG. Bereavement-related regret trajectories among widowed older adults. J Gerontol B Psychol Sci Soc Sci. 2014 6 13;69(1):40–47. [PubMed: 23766434]
10. Shanfield SB, Benjamin AH, Swain BJ. Parents' reactions to the death of an adult child from cancer. AmJ Psychiatry. 1984 9;141(9):1092–1094. [PubMed: 6465387]
11. Steinhauser KE, Clipp EC, McNeilly M, Christakis NA, McIntyre LM, Tulsky JA. In search of a good death: observations of patients, families, and providers. Ann Intern Med. 2000 5 16;132(10): 825–832. [PubMed: 10819707]
12. Klingspon KL, Holland JM, Neimeyer RA, Lichtenthal WG. Unfinished business in bereavement. Death Stud. 2015 8 9;39(7):387–398. [PubMed: 26057117]

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13. Roth AJ, Kornblith AB, Batel-Copel L, Peabody E, Scher HI, Holland JC. Rapid screening for psychologic distress in men with prostate carcinoma. Cancer. 1998 5 15;82(10):1904–1908. [PubMed: 9587123]
14. Karnofsky DA. The clinical evaluation of chemotherapeutic agents in cancer. Evaluation of chemotherapeutic agents 1949.
15. Masterson M, Holland J, Slivjak E, Jankauskaite G, Breitbart W, Lichtenthal W. Unfinished business among advanced cancer patients. Pscyho-oncology. 2016 3 1;25:67.
16. Rosenfeld B, Pessin H, Lewis C, et al. Assessing hopelessness in terminally ill cancer patients: development of the Hopelessness Assessment in Illness Questionnaire. Psychol Assess. 2011 6;23(2):325–336. [PubMed: 21443366]
17. Breitbart W, Rosenfeld B, Gibson C, et al. Meaning-centered group psychotherapy for patients with advanced cancer: a pilot randomized controlled trial. Psychooncology. 2010 1 1;19(1):21–28. [PubMed: 19274623]
18. Breitbart W, Rosenfeld B, Pessin H, Applebaum A, Kulikowski J, Lichtenthal WG. Meaning-centered group psychotherapy: an effective intervention for improving psychological well-being in patients with advanced cancer. J Clin Oncol. 2015 2 2;33(7):749–754. [PubMed: 25646186]
19. 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 7;9(3):207–219. [PubMed: 7582177]
20. Spinhoven PH, Ormel J, Sloekers PP, Kempen GI, Speckens AE, Van Hemert AM. A validation study of the Hospital Anxiety and Depression Scale (HADS) in different groups of Dutch subjects. Psychol Med. 1997 3;27(2):363–370. [PubMed: 9089829]
21. Savard J, Laberge B, Gauthier JG, Ivers H, Bergeron MG. Evaluating anxiety and depression in HIV-infected patients. J Pers Assess. 1998 12 1;71(3):349–367. [PubMed: 9933941]
22. Rosenfeld B, Breitbart W, Stein K, et al. Measuring desire for death among patients with HIV/AIDS: the schedule of attitudes toward hastened death. Am J Psychiatry. 1999 1 1;156(1):94–100. [PubMed: 9892303]
23. Chochinov HM, Hack T, Hassard T, Kristjanson LJ, McClement S, Harlos M. Dignity therapy: a novel psychotherapeutic intervention for patients near the end of life. J Clin Oncol. 2005;23(24): 5520–5525. [PubMed: 16110012]
24. Reker GT. Manual of the life attitude profile-revised Student Psychologists, Peterborough (ON) 1992.
25. Brady MJ, Peterman AH, Fitchett G, Mo M, Cella D. A case for including spirituality in quality of life measurement in oncology. Psychooncology. 1999 9 1;8(5):417–428. [PubMed: 10559801]
26. Nelson CJ, Rosenfeld B, Breitbart W, Galietta M. Spirituality, religion, and depression in the terminally ill. Psychosomatics. 2002 5 1;43(3):213–220. [PubMed: 12075036]
27. Robinson S, Kissane DW, Brooker J, Burney S. A review of the construct of demoralization: history, definitions, and future directions for palliative care. Am J Hosp Palliat Med. 2016 2;33(1): 93–101.
28. Steinhauser KE, Alexander SC, Byock IR, George LK, Tulsky JA. Seriously ill patients' discussions of preparation and life completion: an intervention to assist with transition at the end of life. Palliat Support Care. 2009 12;7(4):393–404. [PubMed: 19939302]
29. LeMay K, Wilson KG. Treatment of existential distress in life threatening illness: a review of manualized interventions. Clin Psychol Rev. 2008 3 1;28(3):472–493. [PubMed: 17804130]
30. Breitbart W, Masterson M. Meaning-centered psychotherapy in the oncology and palliative care settings In: Clinical Perspectives on Meaning. Springer International Publishing; 2016:245–260.
31. Akhtar S, Barlow J. Forgiveness therapy for the promotion of mental well-being: a systematic review and meta-analysis. Trauma Violence Abuse. 2018 1;19(1):107–122. [PubMed: 27009829]
32. Worthington EL, Wade NG, Hoyt WT. Positive psychological interventions for promoting forgiveness: history, present status, and future prospects In: The Wiley Blackwell Handbook of Positive Psychological Interventions. Hoboken, NJ: Wiley-Blackwell; 2014:20–41.
33. Wade N, Schultz JM, Schenkenfelder M. Forgiveness therapy in the reconstruction of meaning following interpersonal trauma In: Reconstructing Meaning After Trauma. Cambridge, MA: Elsevier; 2017:69–81.

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

34. Hayes SC, Luoma JB, Bond FW, Masuda A, Lillis J. Acceptance and commitment therapy: model, processes and outcomes. Behav Res Ther. 2006 1 31;44(1):1–1):25.
35. Neimeyer RA. Meaning reconstruction in the wake of loss: evolution of a research program. Behav Chang. 2016a 6;33(2):65–79.
36. Jordan JR. Guided imaginal conversations with the deceased In: Techniques of Grief Therapy: Creative Practices for Counseling the Bereaved. New York, NY: Routledge; 2012;23:262–265.

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TABLE 1

T tests and chi-square test results of sociodemographic variables and presence of unfinished business[a]

	Total Sample (N = 223)	**Presence of UB (n = 161)**	**Absence of UB (n = 62)**	**Chi-square/*t* test**
Participant Characteristics	N(%) or M (SD)	n(%) or M (SD)	n(%) or M (SD)	*P* value
Age, y	57.8 (10.8)	56.79 (11.52)	59.47 (10.96)	0.926
Education, y	16.6 (2.6)	161 (16.63)	62 (16.35)	0.835
Gender				
Male	***62 (28%)***	***37 (59.7%)***	***25 (40.3%)***	***0.010*** *
Female	***161 (72%)***	***124 (77%)***	***37 (23%)***	***0.010*** *
Ethnicity				
Hispanic	17 (8%)	14 (82.4%)	3 (17.6%)	0.502
Non-Hispanic	206 (92%)	147 (71.1%)	59 (28.9%)	0.502
Race				
Caucasian	181 (81%)	137 (71.1%)	52 (28.9%)	0.720
African American	25 (11%)	20 (76.9%)	6 (23.1%)	0.720
Other race	17 (8%)	4 (23.5%)	4 (76.5%)	0.720

[a]Bolded/italicized coefficients represent significant effects ($P < .05$); * indicates significant coefficients based on False Discovery Method. The *P* values for the linear regressions are for the individual β statistics.

*$P < .05$.

**$P < 01$.

***$P < .001$.

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TABLE 2

Regression results of sociodemographic variables and UB-related distress

	UB-related Distress				
Participant Characteristics	β	R^2	t	F(DF)	p
Age, years	−.13	.02	9.69	2.50(1,155)	.116
Education, years	.04	.01	6.29	0.27(1,155)	.602
Gender	−.03	.01	9.95	0.17(1,155)	.685
Ethnicity	.12	.02	1.52	2.30(1,154)	.132
Race	−.04	.01	26.04	0.28(1,155)	.598

Note: bolded/italicized coefficients represent significant effects ($p < .05$); * indicates significant coefficients based on False Discovery Method.

[a]The p values for the linear regressions are for the individual β statistics.

*p<.05.

**p<01.

***p<.001.

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TABLE 3

Regression results for presence of UB and UB-related distress predicting psychological adjustment

	Presence of UB					UB-related Distress				
Outcomes	**β**	R^2	***t***	***F*(DF)**	***p***	***β***	R^2	***t***	***F*(DF)**	***p***
HAI	.10	.01	1.39	1.09(2,219)	.340	***.24***	***.05***	***3.09***	***9.54(1,154)***	***.002*** *
MQOL	−.09	.01	−1.32	.89(2,219)	.412	−.12	.01	18.66	2.14(1,154)	.146
HADS-A	**.26**	**.08**	**3.97**	**8.93(2,219)**	< **.001** **	***.17***	***.03***	***2.08***	***4.31(1,154)***	***.040*** *
HADS-D	.00	.01	0.03	.94(2,219)	.391	.10	.01	4.83	1.62(1,154)	.205
SAHD	−.07	.02	−1.08	1.9(2, 217)	.147	.16	.02	1.78	3.80(1,154)	.053
LAP-R PMI	−.08	.01	−1.13	.68(2,189)	.510	***−.21***	***.04***	***16.1***	***6.18(1,136)***	***.014*** *
LAP-R ET	***−.22***	***.05***	***−2.88***	***4.17(2,165)***	***.017*** *	***−.23***	***.05***	***−2.59***	***6.70(1,119)***	***.011*** *
FACIT-SP	−.10	.01	−1.40	.98(2,219)	.378	−.054	.01	11.35	.46(1,154)	.500

Note: bolded/italicized coefficients represent significant effects ($p < .05$); * indicates significant coefficients based on False Discovery Method.

R^2 represents the fit for the linear model. All models are adjusted for gender.

HAI: Hopelessness Assessment in Illness; MQOL: McGill Quality of Life Scale; HAI: HADS-A: Hospital Anxiety and Depression Scale, Anxiety subscale; HADS-D: Hospital Anxiety and Depression Scale, Depression subscale; SAHD: Schedule of Attitudes towards Hastened Death; LAP-R PMI: Life Attitude Profile, Revised Personal Meaning Index; LAP-R ET: Life Attitude Profile, Revised Existential Transcendence; FACIT-SP: Spiritual Well-Being Scale.

[a]The *p* values for the linear regressions are for the individual *β* statistics.

* p<.05.

** p<01.

*** p<.001.

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TABLE 4

UB themes invoked by advanced cancer patients

UB Theme	Coding Definition	Sample Response	*n* (%)
Overarching Themes			
Unfinished Business	Not finished or concluded; incomplete business	"*Seeing my daughter happily married and with healthy children*"	198 (83.9%)
Unresolved Business	A problem, question, or dispute not resolved	"*My relationship with my sister, although we are close, our personalities are very different. We don't always understand each other's views or opinions and this leads to tension and stress that I want to resolve*"	35 (14.8%)
Vague	Too vague to be categorized	*"I'm hoping for the best"*	3 (1.9%)
Specific Themes			
Family-related goals and responsibilities	Desire to spend more time with family, witness family milestones, and be present for family	*"My wife is pregnant and I want to see my daughter grow up"*	60 (25.4%)
Relationships	Relationships with family, friends, colleagues, and loved ones	*"My relationship with my daughter, at present she isn't talking to me"*	42 (17.8%)
Meaningful activities/personal goals	Desire to engage in meaningful activities and/or accomplish personal goals	*"Learning to really enjoy my life"*	39 (16.5%)
Professional Work	Professional goals; desire for productivity	*"I feel I have more to accomplish in my career"*	27 (11.4%)
Organization of home and affairs	Getting affairs organized, estate planning, lessening burden of death for loved ones	*"I need to get my home organized so everything isn't a mess for my family"*	25 (10.6%)
Travel	Unfinished trips, travel plans, and adventures	*"Travel to New Zealand to meet my relatives"*	18 (7.6%)
Legacy/Pursuit of purpose	Desire to contribute to society and others in a meaningful way; create a legacy	*"Helping to make the world a better place through a project I'm involved in"*	11 (4.7%)
Distress/worry	Fear, worry, distress, and disappointment about the future, one's choices, or life events	*"I feel disappointed in how I've turned out as both a person and in what the effect of my life has been, I feel I' ve run out of time"*	11 (4.7%)