

ORIGINAL ARTICLE

Cancer in Poetry—Poetry in Cancer: A Linguistic Analysis of Poems by Poets on Their Own Cancer and on the Cancer of Their Loved Ones

Ad A. Kaptein¹  | Waldie E. Hanser²  | Jan W. Schoones³  | Peter Boot⁴  | James W. Pennebaker⁵  | Brian M. Hughes⁶ 

¹Medical Psychology, Leiden University Medical Centre, Leiden, the Netherlands | ²Department of Clinical and Medical Psychology, Tilburg University, Tilburg, the Netherlands | ³Directorate of Research and Valorisation, Leiden University Medical Centre, Leiden, the Netherlands | ⁴Huygens Institute, University of Amsterdam, Amsterdam, the Netherlands | ⁵Psychology, University of Texas, Austin, Texas, USA | ⁶School of Psychology, University of Galway, Galway, Ireland

Correspondence: Ad A. Kaptein (a.a.kaptein@lumc.nl)

Received: 19 June 2025 | **Revised:** 5 September 2025 | **Accepted:** 3 October 2025

Funding: The authors received no specific funding for this work.

Keywords: cancer | expressive writing | health humanities | linguistic inquiry and word count (LIWC) | patient narrative | poetry

ABSTRACT

Background: Poems related to cancer offer a rich perspective on the clinical reality of living with cancer. Therefore, in this paper, poems written by poets about their own cancer and about the cancer of loved ones are examined in the context of communal coping.

Methods: We analyzed 123 poems by 14 poets writing about their own cancer, and 72 poems by 8 poets writing about the cancer of their loved ones, with Linguistic Inquiry and Word Count software (LIWC).

Results: LIWC-scores drawn from poems about one's own cancer exhibited a limited use of “third-person singular”, social words (“family”, “female”, “male”), and time orientation (“focus past”), and an increased focus on the present. Support for this observation comes from significant correlations between words related to the present, body, and health, with strong, negative emotions. Poems about loved ones who suffer cancer tend to focus on grief and mourning, and to exhibit melancholy and represent paternal, maternal, spousal, and filial elegies.

Conclusions: The linguistic characteristics and content of poems by poets writing about their cancer or about the cancer of their loved ones provides rich insights. This linguistic analysis of poems regarding cancer can be used in the further development of theory and clinical application of self-management approaches for persons with cancer, in support of expressive writing interventions, bibliotherapy, photovoice, art therapy, and health humanities.

What are words worth? What are words worth?

Words are trouble, words are subtle.

Words of anger, words of hate.

Words over here, words out there.

In the air and everywhere.

Words of wisdom, words of strife.

Tom Tom Club, Wordy Rappinghood, 1981

1 | Background

Almost half-a-century ago, Susan Sontag wrote: “Cancer is a rare and still scandalous subject for poetry ...” [1]. Sontag would undoubtedly be impressed to learn that some 50 years on, cancer is now a subject about which hundreds if not thousands of poems have been published in journals, books and anthologies. The book *Cancer Poetry*, for instance, discusses some 30

poets who, in several hundreds of poems, have focused on the lived experience of cancer, supporting its author's conclusion that "... poetry in particular seems to *lend itself* to the representation of cancer" (p. 11) [2].

Examining the lived experience of cancer from a patient's perspective - by evaluating the patients' perception of symptoms, their decisions about seeking or not seeking medical care, their responses to diagnostic procedures and therapeutic measures, their sense-making with regard to the illness, and their communication with health care providers, partners, family, and the social environment - is a rapidly developing scientific and clinical pursuit. Quality of life, shared decision-making, patient-reported outcomes, and value-based health care are no longer considered esoteric concepts of interest only to social scientists, but represent important constructs in the clinical health professions. The study of a patient's narratives is increasingly recognized as having important clinical potential [3].

The interdisciplinary field of "health humanities" offers a variety of both theoretical and empirical approaches for eliciting and studying a patient's story and narrative. In the area of oncology, a quite substantial body of work now exemplifies the usefulness of health humanities. Frank, with his three categories of wounded storytellers [3], Kleinman, with his explanatory models [4], and Leventhal [5], with his model of illness perceptions, have each made major contributions to theory and methodology, drawing on medical sociology, anthropology, and health psychology, respectively. Research and clinical care approaches that focus on the patient's view now frequently appear in oncology journals, as well as in the health humanities domain.

Such clinical applications have seen rapid development over recent decades. For example, bibliotherapy approaches have been refined, and have been shown to promote improvements in quality of life of persons with cancer [6]. Similarly, expressive writing (writing about emotional, cognitive, and social impact of the illness and its management) has been associated with improvements in fatigue, passive mood, and physical quality of life [7]. "Photovoice" [8], music therapy [9], and art therapy [10] have also been linked with improved quality of life in persons with cancer. Interventions where cancer patients draw pictures of their illness have been studied in some detail: research by Broadbent et al. [11], and others, attests to the overall positive effects of this approach in encouraging patients with cancer to assume more control of their illness and its management. These types of interventions provide valuable data on a patient's story. Novels, autopathographies (such as illness narratives ["autobiographical accounts of illness spoken or written by patients" [12]] or illness memoirs ["constructed representations of the interior experience of illness" [12]]) are additional sources of data [13]. Films, photos, movies, and drawings have also been used extensively [14]. However, not all such approaches are appreciated. Somewhat sarcastically, Jurecic mentions two additional concepts - "misery memoirs" and "victim art" - in her discussion of how many academics tend to view illness narratives negatively and with contempt [12, 15].

Inviting and encouraging patients to be active participants in their medical management is, in general, well recognized as

being associated with meaningful gains in medical outcome [7, 14]. Nonetheless, while health care providers in oncology frequently embrace concepts such as quality of life and shared decision-making, consideration of the patient's story is still often reduced to a box-ticking exercise, in which the relevant dimensions of patient experience are defined by health care professionals [16]. And while qualitative research approaches are available to examine patients' narratives in detail, these often remain primarily of interest to researchers rather than clinicians [17].

In this paper we focus on one example of how cancer narratives can be considered in a health humanities context with a qualitative focus—specifically, through the medium of poetry. Many patients with cancer write poems (or produce other art) about their illness, including several established and notable poets. Other poets write poems about persons who have cancer in their social environment, such as partners, children, parents, or relatives. Poems on cancer have been used by academics as data for examining the lived experience of patients [2], and linguistic research has identified some differences in the general language used by patients with cancer and their loved ones/caregivers (see Table 1, which shows five recent studies on this theme [18–22]). We sought to explore whether these deviations in general language are detectable in poetry about cancer.

There are several ways to analyze written and spoken texts, including thematic analysis and quantitative linguistics (such as counting words or linguistic components that might be psychologically relevant). In the present study we employ the latter approach, using the Linguistic Inquiry and Word Count methodology and software (LIWC [23, 24]). The software analyses texts and returns component summaries of word-use based on a psychometrically validated dictionary of linguistic categories (such as parts of speech), emotional tonality, time focus, and topic. LIWC is a commonly used tool for analyzing diverse texts, and is applicable to poetry (e.g., as demonstrated in the language shifts in the poems of Sylvia Plath as her mental health deteriorated [25], and by comparing poems by suicidal and non-suicidal poets [26]). Aside from poems, LIWC has also been employed to analyze song lyrics. It was, for instance, used to characterize the lyrics of The Beatles to investigate song popularity in relation to second-person pronoun use, and recently to consider the word-use in lyrics of popular funeral songs [27]. LIWC's ability to detect the emotional tone and expressions in texts written by cancer survivors has been validated [28]. Boot et al. provide LIWC-derived data on texts written in Dutch [29]. The LIWC was recently used to study the emotional tone and preoccupations of testimonials provided in in-depth interviews with 20 patients with cancer [30]. In order to illustrate LIWC content and methodology, Table 2 shows the categories in the LIWC, with examples of each category.

Caregivers are greatly burdened by the illness of their loved ones. In several respects, caregivers and patients share stress loads and engage in shared coping responses. Such communal coping is a theoretical concept that encompasses research and clinical applications regarding how patients and their caregivers make sense of and cope with an illness and its medical management, focusing on the concordance between patient and caregiver perspectives [31]. Studies that have employed the

TABLE 1 | Empirical papers using LIWC-methodology to assess patient' and caregiver' perceptions in responding to cancer.

First author, year country	Patient and caregivers characteristics	Operationalization of LIWC dimensions	Results
Andy [18], USA	Online cancer forum users, with cancer ($n = 2938$), and caregivers (family members, friends) ($n = 2456$)	Online forum posts analyzed with LIWC	Users with cancer: Posts focus on seeking advice and information, health and anxiety words; caregivers: Three themes in posts: Past-present, sadness, death
Badr [19], USA	105 patients with head & neck cancer, 18 partners	LIWC analyses of videotaped discussion in the laboratory on cancer	Emotion words associated with gratitude to partner, "we-talk" associated with distress reduction
Borelli [20], Italy	133 patients and 118 caregivers in early palliative care in written reports	LIWC used to construct dimensions of gratitude, communication, spirituality	High level of gratitude in patients and caregivers; gratitude associated with early palliative care quality and emotional support
Bybee [21], USA	Audio recording of hospice nurses' home visits, in patients and their caregivers ($n = 76$)	Content analysis of recordings	Caregivers more likely to discuss patients' medical care rather than their own needs.
Robbins [22], USA	Word use in daily conversations of couples coping with breast cancer, studied via electronically activated recorders, $n = 52$ couples	Stress, assessed with LIWC methodology	Healthy partners' positive word use helps partners' coping; positive reframing is associated with lower stress

LIWC methodology to examine communal coping in cancer are briefly summarized in Table 1 [18–22].

Our study sought to use LIWC to examine the lived experience of cancer as expressed in poems, encompassing works written by poets who suffered cancer themselves, and poets who wrote poems about loved ones who had cancer. We anticipated that some of the differences described in Table 1 would be reflected in the word-use of these poems. As per the findings of Andy and Andy [18], we anticipated differences in emotional tone, time focus, and topics between first-person and third-person cancer poetry. Based on this work, our primary categories of interest were emotional tone, time focus, and topics related to health, illness, and death. We further include categories used in recent research [26, 27, 30], namely, relevant pronouns, and social words, while allowing for the prospect of additional word categories of interest being suggested by a close reading of the poems themselves.

2 | Methods

2.1 | Materials, Software and Analysis

In all, we analyzed poems by 22 poets, the poems being the unit of analysis. The poems were selected based on previously identified and prominently discussed relationships to narratives of cancer, drawing on Twiddy [2], PubMed literature searches, and our knowledge of pertinent journals. Consideration was restricted to poems written originally in English. If poems consisted of multiple, separate sections, each was treated as a single poem. An overview of the included poems and their poets is provided in Table 3 (see also Supplementary Materials for additional information). Poems were collated by the first author.

The first and second authors closely read all poems and prepared the text for LIWC analysis (e.g., by spelling out abbreviated terms in full, such as replacing OR with *operating room*, and by manually adjusting examples of dialect, such as changing *goin'* or *gonna* into *going [to]*), as per the principles outlined by Pennebaker et al. [24].

Where reported, statistical analyses were carried out using JASP 0.19.2 (JASP Team, 2024). Because of violations of normality, analyses consisted of non-parametric Mann-Whitney *U* tests and Spearman's rho correlations. Findings were considered significant at $p \leq 0.05$ and the reported effect-size is the rank-biserial correlation with demarcations small 0.1, medium 0.3, large 0.5 [32].

3 | Findings

The selected poems and their sources are listed in Table 3. An initial reading of the poems suggested some preliminary observations. Using Frank's characterization of illness narratives—that is, "restitution", "chaos", or "quest"—virtually all poems can be categorized as exemplifying a "quest" narrative. The restitution narrative—the relatively superficial and naive/optimistic representation of cancer as a condition that can be made to disappear rather overnight by high tech biomedical care—is not the story used by sufferers or witnesses. Similarly, chaos narratives—being completely overwhelmed by the illness and its consequences, and feeling completely powerless to make sense of the condition and its treatment—is hardly traceable in the poems. Bewilderment (Armentrout, in "Together", p. 62), and loss (Best, in "Two weeks before surgery", p. 32) may contain traces of such a chaos narrative. A representation where patients "face the facts" (Carver in "What the doctor said",

TABLE 2 | Examples of words in investigated LIWC categories.

Word category	Examples	Word category	Examples
Pronouns		Male	He, man
First-person singular	I, me, my	Cognitive processes	
First-person plural	We, us	Insight	Know, think
Second-person	You, your	Causation	Because, why
Third-person singular	He, she	Tentatives	If, maybe
Third-person plural	They, them	Body	Hands, feet
Emotion words		Health	Clinic, pill
Positive emotion	Love, sweet	Sexual	Love, horny
Negative emotion	Hurt, nasty	Time orientation	
Anxiety	Worry, fear	Past focus	Ago, did
Anger	Hate, angry	Present focus	Today, now
Sadness	Sad, grief	Future focus	May, will
Social words		Topics	
Family	Mother, parent	Religion	Church, God
Friend	Friend, girlfriend	Death	Dead, bury
Female	She, woman		

Note: Example words are derived from the manual for LIWC2015 by Pennebaker et al. (2015) [24].

TABLE 3 | Poets (year of birth and death), Volume title and Number of poems included in this study.

Poet	Volume title (book/monograph)	No. of poems
Poet's own illness		
B.A. St. Andrews (1946–2023)	Round & Ripe & Wise	3
Rae Armantrout (1947–)	Versed	10
Clare Best (1955–)	Excisions	16
Ray Carver (1938–1988)	All of us	1
Julia Darling (1956–2005)	Sudden Collapses in public Places	9
Marilyn Hacker (1942–)	Winter numbers—Poems	14
Philip Hodgins (1959–1995)	Selected poems	15
Audre Lorde (1934–1972)	The Marvelous Arithmetics of Distance	4
Judy Rowe Michaels (1944–)	Reviewing the Skull	14
Letha Moore (unknown)	Cancer—Rising from within	8
Alicia Suskin Ostriker (1937–)	The Crack in Everything	10
Jo Shapcott (1953–)	Of Mutability	11
John Updike (1932–2009)	Endpoint and other poems	2
Christian Wiman (1966–)	Every Riven thing	6
Illness of a loved one		
Douglas Dunn (1942–)	Elegies	12
Donald Hall (1928–2018)	Without	12
Michael Longly (1939–2025)	Collected poems	2
Paul Muldoon (1951–)	The Annals of Chile	7
Sharon Olds (1942–)	The Father	13
Christopher Reid (1949–)	A Scattering	11
Anne Sexton (1928–1974)	The complete poems	4
Jane Yolen (1939–)	The Radiation Sonnets	11

Note: See supplementary materials on titles and page numbers of the included poems [24].

Uptake in “Needle Biopsy 12/22/08” and “Colonoscopy”) is clearly recognizable; whereas the “fighting spirit” concept, so rightly despised by Sontag, is less apparent.

The virtual absence of the topics “sexuality” and “suicidality” may be somewhat noteworthy. “Religion” is also a topic that also does not figure prominently (except for the work by Wiman, who states: “... if I look back on the poems I’ve written in the past 2 decades, it almost seems as if the one constant is God. Or, rather, His absence”; p. 61). If anything, “resignation” seems to be the central word or concept in the poems we selected. The poems do not contain strong and loud expressions of sadness, pain, anger or denial. The word “melancholy” seems more to the point, reflecting the concept of Frank’s “quest narrative”. For example, Dunn even seems to comfort himself by writing that the poetry “will do you good, this work of your grief...” (p. 53). Hall in “Air shatters in the car’s small room” certainly addresses loss and sorrow (“...I scream and keep on screaming”; p. 18), opposing W.B. Yeats’ stance about poems not containing traces of such emotions.

Paternal, maternal, spousal, and filial elegies are other categories mentioned by Twiddy. Explanatory models (Kleinman) and illness perceptions (Leventhal) are certainly also relevant concepts in poems about cancer.

Descriptive values and related information regarding the LIWC-dimensions about the poems are presented in Table 4.

When comparing the two selections - poems about one’s own cancer versus poems about a loved one with cancer - there were statistically significant differences in a number of LIWC dimensions (see Table 3). Specifically, there were statistically significant differences in LIWC scores, for “third-person singular” words, for social words (“family”, “female”, “male”), and for words relating to time orientation (“focus past” and “focus present”). Based on the conventional effect-size thresholds, the effects were classifiable as “medium” to “large”. The differences in third-person pronouns and social words related to family and gender reflected the to-be-expected relative emphasis on “self” as opposed to “other”.

The differences in tense reflected a greater focus on the past and lesser focus on the present in poems concerning loved ones with cancer, suggesting an emphasis on the illness process and on possible lethal outcomes. Words related to death were more frequent, albeit non-significantly, for this group. In previous analyses of song lyrics, a reduced focus on the present has been associated with sad songs [33], corroborating our impressions when reading of the poems. In their study of general language use, Andy and Andy report similar differences in tense use [18]. The fact that poems by poets who write about their own cancer appear to have a greater focus on the present could relate to concerns about coping and living with such an illness and what it means for those concerned during and after treatment.

The lack of significant differences in the overall emotional tone, cognitive processes, and words related to body and health was of interest. Word use may be similar, but, as the brief thematic analysis suggested, the focus in these poems may differ. As such,

this idea was further explored using correlations (see Tables 5 and 6). Intercorrelations of the LIWC dimensions for the two samples reveal strong associations with emotions, cognitions, physical, health, and death-related words in poems when poets wrote about their own illnesses, whereas most of these associations were non-significant in poems when poets wrote about loved ones.

Overall, the findings suggest a resigned view and less focus on one’s own body in the present. Words relating to fear and sadness are used more frequently in relation to death, while feelings of anger surround one’s own health. The latter is also positively associated with words concerning death. Interestingly, words relating to the future are positively associated with negative emotions and negative with health concerns.

4 | Reflections

Poems have the potential to be a valuable and rich source of information about the lived experience of cancer. As we show here, poems about cancer - whether by poets writing about their own illness, or by poets writing about the cancers of their loved ones - can be studied empirically. Moreover, it can be shown that such literary works from different perspectives diverge in various respects, as assessed through LIWC. Poems about a poet’s own illness appear to have, a stronger focus on the poet him/herself, and on the present time. Intercorrelations between LIWC characteristics tend to show clustering on emotional and cognitive issues. They further show that poems about one’s own illness reveal a dissatisfaction with the body and an avoidance of the topic of one’s own health in the present [34]. The LIWC approach appeared to imply a thematic difference in concerns, namely reflecting fighting spirit, with a more technical, rational thinking in poems when poets write about their own cancer, and an emphasis on grief and mourning in poems when poets write about a loved one’s with cancer.

Putting our study in the context of related research (as listed in Table 1) seems to add knowledge of a somewhat more contemplative nature: the poems studied in our work seem to reflect more emotional, biomedical issues (death, body, health). In addition, the findings relating to words with a time focus (past, present, future) show a difference in personal concerns between those suffering cancer themselves and their loved ones. Future investigations may further consider how cancer sufferers and their caregivers might think differently about time, which may provide valuable insights into the construction of personal concerns (cf. [27, 33]). Our work supports the idea that patients and their caretakers experience differences in their emotional and information needs when dealing with cancer, and the idea that this need is reflected in artistic expressions as it is in their search for support and information [18].

Experiencing cancer oneself or witnessing cancer in loved ones are two very different types of experience, eliciting different psychological responses. When translated into a poetic form, they may not be immediately comparable: the distinction between “death” and “dying”—between witnessing it and experiencing it—will serve to highlight some important themes. For example, a person who is dying of cancer may be more

TABLE 4 | Descriptive values (medians (Mdn), Interquartile Ranges (IQR), means (M), standard deviations (SD), *p*-values and effect sizes [Mann-Whitney *U* test]) for outcomes of LIWC-dimensions for poems about own illness and poems about loved ones.

Word category	Poems about own illness (123)		Poems about loved ones (72)		<i>p</i>	Effect-size
	Mdn (IQR)	M (SD)	Mdn (IQR)	M (SD)		
Word count	111 (69.50)	134 (73.81)	116.50 (71.50)	153 (121.02)	0.537	0.05
Pronouns						
First-person singular	5.06 (6.11)	4.94 (3.72)	4.04 (4.20)	4.27 (3.22)	0.248	0.10
First-person plural	0.00 (0.92)	0.96 (2.19)	0.00 (0.97)	1.03 (1.89)	0.412	0.06
Second-person	0.00 (2.53)	1.60 (2.54)	0.00 (2.29)	1.58 (2.59)	0.613	0.04
Third-person singular	0.00 (1.33)	1.11 (1.93)	3.94 (6.34)	4.32 (3.73)	< 0.001*	0.56
Third-person plural	0.00 (0.98)	0.75 (1.30)	0.00 (1.07)	0.65 (1.09)	0.919	0.01
Emotion words						
Positive emotion	1.89 (2.50)	2.36 (2.15)	2.36 (2.58)	2.46 (1.90)	0.429	0.07
Negative emotion	1.89 (2.06)	2.36 (2.00)	1.91 (2.67)	2.28 (1.84)	0.861	0.02
Anxiety	0.00 (0.86)	0.46 (0.74)	0.00 (0.79)	0.42 (0.66)	0.953	0.01
Anger	0.00 (0.90)	0.56 (1.01)	0.00 (0.78)	0.55 (0.92)	0.961	0.00
Sadness	0.00 (1.00)	0.70 (1.04)	0.44 (1.33)	0.75 (0.94)	0.404	0.07
Social words						
Family	0.00 (0.00)	0.22 (0.50)	0.33 (1.11)	0.68 (0.91)	< 0.001*	0.34
Friend	0.00 (0.00)	0.27 (0.52)	0.00 (0.29)	0.24 (0.50)	0.882	0.01
Female	0.00 (0.94)	0.89 (1.77)	1.80 (4.69)	2.79 (0.290)	< 0.001*	0.45
Male	0.00 (0.46)	0.63 (1.40)	0.78 (3.42)	2.50 (3.63)	< 0.001*	0.38
Cognitive processes						
Insight	1.77 (2.00)	2.00 (1.55)	1.44 (1.36)	1.63 (1.22)	0.118	0.13
Cause	0.66 (1.48)	0.95 (1.10)	0.49 (1.10)	0.68 (0.78)	0.164	0.12
Tentatives	1.30 (1.75)	1.73 (1.69)	1.89 (2.20)	2.04 (1.52)	0.059	0.16
Body	2.60 (3.21)	3.14 (2.62)	2.18 (2.62)	2.66 (2.22)	0.260	0.10
Health	1.51 (1.71)	1.72 (1.55)	1.04 (2.21)	1.35 (1.39)	0.074	0.15
Sexual	0.00 (0.59)	0.46 (0.97)	0.00 (0.27)	0.25 (0.53)	0.560	0.04
Time orientation						
Past focus	2.00 (3.46)	2.83 (2.65)	4.35 (3.97)	4.37 (3.04)	< 0.001*	0.31
Present focus	8.00 (6.17)	8.38 (4.10)	6.34 (5.61)	6.56 (3.98)	0.003*	0.25
Future focus	0.90 (1.62)	1.11 (1.30)	0.71 (1.35)	0.94 (1.20)	0.230	0.10
Topics						
Religion	0.00 (0.96)	0.53 (1.05)	0.00 (0.88)	0.51 (0.78)	0.656	0.03
Death	0.38 (1.05)	0.79 (1.27)	0.78 (1.54)	0.90 (0.97)	0.095	0.14

Note: (1) *denotes a significant difference, (2) except for word count, values are percentages of the total number of used words, (3) the reported effect-size is the rank-biserial correlation with demarcations small 0.1, medium 0.3, large 0.5.

accepting of their situation than their loved ones, who must say goodbye to them and live without them. LIWC methodology can accommodate such differences by offering categories that encompass the meaning of language used across poems by both experiencing and witnessing persons. Empirical work by Andy and Andy (2021), for instance, illustrates how self-declared cancer sufferers and family members and friends of an individual who has or has had cancer can be compared using LIWC methodology, helping to reveal their distinct support needs and

concerns. Future research should certainly seek to explore further the distinctive worlds of sufferers and witnesses.

4.1 | Study Limitations

Our evaluation was limited to poems originally written in English. Poems in other languages, of course, also shine a light on

TABLE 5 | Spearman rho correlations between LIWC categories for 123 poems about a poet's own cancer.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Positive emotions	—													
2. Negative emotions	−0.029	—												
3. Anxiety	−0.043	0.380***	—											
4. Anger	−0.068	0.433***	−0.048	—										
5. Sadness	0.076	0.549***	0.036	0.059	—									
6. Insight	0.020	0.148	0.036	0.000	0.171	—								
7. Cause	−0.075	0.014	−0.114	0.178*	−0.011	0.217*	—							
8. Tentative	−0.004	0.116	0.083	−0.097	0.160	0.125	0.061	—						
9. Body	−0.185*	−0.161	0.076	−0.130	−0.117	−0.211*	−0.143	−0.270***	—					
10. Health	0.017	0.267**	−0.079	0.296***	0.098	0.057	0.112	−0.043	−0.148	—				
11. Past focus	0.051	0.006	−0.029	0.116	0.000	0.095	0.163	−0.054	−0.013	−0.037	—			
12. Present focus	−0.058	0.173	0.134	−0.085	0.241**	0.287**	0.218*	0.306***	−0.280**	−0.058	−0.231*	—		
13. Future focus	−0.065	0.213*	0.077	0.066	0.141	0.100	0.104	0.121	−0.157	0.231*	−0.080	0.123	—	
14. Death	−0.112	0.378***	0.247**	0.145	0.247**	0.198*	0.102	0.187*	−0.121	0.192*	0.099	0.139	0.126	—

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

TABLE 6 | Spearman rho correlations between LIWC Categories for 72 poems about a loved one's cancer.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Positive emotions	—													
2. Negative emotions	0.067	—												
3. Anxiety	−0.081	0.457***	—											
4. Anger	0.099	0.597***	0.162	—										
5. Sadness	0.019	0.527***	0.034	0.117	—									
6. Insight	0.211	−0.016	0.028	−0.010	−0.083	—								
7. Cause	0.155	0.053	0.167	0.006	−0.007	0.193	—							
8. Tentative	0.174	0.205	0.215	0.097	0.059	0.100	0.055	—						
9. Body	−0.162	0.018	−0.187	0.015	0.198	−0.251*	−0.152	−0.195	—					
10. Health	0.136	0.119	0.210	0.124	−0.162	0.073	−0.241*	0.074	0.196	—				
11. Past focus	0.188	−0.137	0.024	0.047	−0.175	−0.068	−0.025	0.177	−0.093	0.067	—			
12. Present focus	−0.008	0.186	0.202	0.120	0.097	0.216	0.166	0.189	−0.077	0.013	−0.376**	—		
13. Future focus	0.176	0.144	0.125	0.079	0.193	0.209	0.017	0.186	−0.072	0.026	−0.075	0.276*	—	
14. Death	0.156	0.041	0.106	0.167	0.156	−0.066	0.130	0.108	0.050	−0.032	0.178	0.132	0.227	—

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

the suffering associated with cancer. There are innumerable examples: in Swedish [35], French [36], and German [37]. More broadly, Von Engelhardt compiled an impressive five-volume set of books on literature and medicine [38]. *Krebs schreiben* (Cancer Writing) [39] and *The Wounded Self* are major works on cancer in literature in the German language [40].

An additional limitation involves the nature of our sample of poetry, which is necessarily study-specific. As such, it cannot be guaranteed to reflect a “representative” sample of the target “population” (i.e., of all cancer-related poems ever written). Given that the total set of “poems about cancer” that exist in the real world is vast and genuinely unknowable, such strict “sampling” principles will be methodically inapplicable to research of this type. Nonetheless, it should be emphasized that our analyses are limited to the particular sample of poetry that we included, as exhaustive as we believe that to be.

Applying various kinds of language analyses to poems about cancer has potential implications for research [41]. It allows rich and deep exploration of lived experiences of cancer. Analyzing characteristics of writings about cancer further demonstrates the scope of health humanities. Additional research could produce norm data for LIWC measures that can be used to benchmark other illness populations and, indeed, other groups that deal with existential threats and risks.

Twiddy adds some thoughts about why poems are a rich, innovative and humanities source of study material for work on poems & cancer:

...poetry in particular seems to lend itself to the representation of cancer. Poetry focuses attention on issues of size and shape, on repeated metrical and rhyming forms, in addition to the revisitings of refrain ... metonym and synecdoche seem capable of bringing the partial qualities of metastasis and radiotherapy to poetic order.

(p. 11)

Our own evaluations of how people creatively make sense of and live with illness attest to this important statement by Twiddy [30].

4.2 | Clinical Implications

With regard to potential clinical implications, we note that others have already reported on the overall positive impact of poetry for medical professionals and trainees [42]. Likewise, a systematic review of narrative medicine interventions (i.e., interventions based on writing and reading) for oncology clinicians concluded that such interventions are “feasible and acceptable and may bolster oncology clinicians’ functioning across domains” [43]. Proposals for frameworks on the role and impact of poetry in health care have been described on behalf of the American Academy of Hospice and Palliative Medicine [44]. Changes in language use could be used as an outcome measure when evaluating interventions aimed at promoting well-being, meaning, and life satisfaction.

5 | Conclusions

Poetic representations provide a rich basis of empirical material for further research and clinical applications of the lived experience of cancer [22, 44]. Poems written by poets about their own illness and about the illnesses of their loved ones display intriguing differences in emotional, cognitive, and personal concerns. There have been many attempts to develop couple-based dyadic interventions for cancer patients and their loved ones, many of which have yielded promising results [45]. And poetry is often used in group therapy, including in patients with advanced cancer, where reading and writing poems have been found to be associated with enhanced management of destructive emotions, such as loneliness and abandonment [46]. Quantitative studies of specific language usage could provide a rich empirical means by which to evaluate and augment the efficacy of these literary techniques.

Conflicts of Interest

The authors declare no conflicts of interest.

References

1. S. Sontag, *Illness as Metaphor* (Farrar, Straus and Giroux, 1978).
2. I. Twiddy, *Cancer Poetry* (Palgrave MacMillan, 2015).
3. A. W. Frank, *The Wounded Storyteller. Body, Illness, and Ethics* (University of Chicago Press, 1995).
4. A. Kleinman, *The Illness Narratives. Suffering, Healing & the Human Condition* (Basic Books, 1988).
5. H. W. Leventhal, "Next Steps for Examining the common-sense of Health Behaviour," *Health Psychology Review* 13, no. 4 (2019): 487–489, <https://doi.org/10.1080/17437199.2019.1642791>.
6. A. Körner, N. Roberts, R. J. Steele, C. Brosseau, and Z. Rosberger, "A Randomized Controlled Trial Assessing the Efficacy of a Self-Administered Psycho-Educational Intervention for Patients With Cancer," *Patient Education and Counseling* 102, no. 4 (2019): 735–741, <https://doi.org/10.1016/j.pec.2018.12.002>.
7. H. Abu-Odah, J. J. Su, M. Wang, D. Sheffield, and A. Molassiotis, "Systematic Review and meta-analysis of the Effectiveness of Expressive Writing Disclosure on Cancer and Palliative Care Patients' health-related Outcomes," *Supportive Care in Cancer* 32, no. 1 (2024): 70, <https://doi.org/10.1007/s00520-023-08255-8>.
8. A. Lanoye, L. Cai, M. D. Thomson, and S. Hong, "Use of Photo Methods in Research Studies With Cancer Survivors and Their Caregivers: A Scoping Review," *Journal of Cancer Survivorship* 18, no. 3 (2024): 698–709, <https://doi.org/10.1007/s11764-022-01321-w>.
9. M. L. Bro, K. V. Jespersen, J. B. Hansen, et al., "Kind of Blue: A Systematic Review and Meta-Analysis of Music Interventions in Cancer Treatment," *Psycho-Oncology* 27, no. 2 (2018): 386–400, <https://doi.org/10.1002/pon.4470>.
10. R. C. Reilly, V. Lee, K. Laux, and A. Robitaille, "Creating Doorways: Finding Meaning and Growth Through Art Therapy in the Face of Life-Threatening Illness," *Public Health* 198 (2021): 245–251, <https://doi.org/10.1016/j.puhe.2021.07.004>.
11. E. Broadbent, J. W. Schoones, J. Tiemensma, and A. A. Kaptein, "A Systematic Review of Patients' Drawings of Illness: Implications for Research Using the Common Sense Model," *Health Psychology Review* 13, no. 4 (2019): 406–426, <https://doi.org/10.1080/17437199.2018.1558088>.
12. A. Jurecic, *Illness as Narrative* (Pittsburgh University Press, 2012).
13. P. Daboui, G. Janbabai, and S. Moradi, "Hope and Mood Improvement in Women With Breast Cancer Using Group Poetry Therapy: A Questionnaire-Based Before-After Study," *Journal of Poetry Therapy* 31, no. 3 (2018): 165–172, <https://doi.org/10.1080/08893675.2018.1467822>.
14. R. Dow, K. Warran, P. Letrondo, and D. Fancourt, "The Art in Public Health Policy: Progress and Opportunities," *Lancet Public Health* 8, no. 2 (2023): e155–e160, [https://doi.org/10.1016/s2468-2667\(22\)00313-9](https://doi.org/10.1016/s2468-2667(22)00313-9).
15. P. M. Camic, "'But it Makes me Uncomfortable': The Challenges and Opportunities of Research Poetry," *Arts & Health* 17 (2025): 1–6, <https://doi.org/10.1080/17533015.2024.2328120>.
16. K. Meadows, "Patient-Reported Outcome Measures – A Call for More Narrative Evidence," *Journal of Patient Experience* 8 (2021): 1–4, <https://doi.org/10.1177/23743735211049666>.
17. A. A. Kaptein, B. M. Hughes, M. Murray, and J. M. Smyth, "Start Making Sense: Art Informing Health Psychology," *Health Psychology Open* 5 (2018): 1–13, <https://doi.org/10.1177/2055102918760042>.
18. A. Andy and U. Andy, "Understanding Communication in an Online Cancer Forum: Content Analysis Study," *JMIR Cancer* 7, no. 3 (2021): e29555, <https://doi.org/10.2196/29555>.
19. H. Badr, K. Milbury, N. Majeed, C. L. Carmack, Z. Ahmad, and E. R. Gritz, "Natural Language Use and Couples' Adjustment to Head and Neck Cancer," *Health Psychology* 35, no. 10 (2016): 1069–1080, <https://doi.org/10.1037/hea0000377>.
20. E. Borelli, S. Bigi, L. Potenza, et al., "Gratitude Among Advanced Cancer Patients and Their Caregivers: The Role of Early Palliative Care," *Frontiers in Oncology* 12 (2022): 991250, <https://doi.org/10.3389/fonc.2022.991250>.
21. S. G. Bybee, M. C. T. Hebdon, K. G. Cloyes, et al., "Cancer Caregivers at the End-of-Life: How Much me Vs. How Much we?," *PEC Innovations* 3 (2023): 100193, <https://doi.org/10.1016/j.pecinn.2023.100193>.
22. M. L. Robbins, R. C. Wright, A. M. López, and K. Weihs, "Interpersonal Positive Reframing in the Daily Lives of Couples Coping With Breast Cancer," *Journal of Psychosocial Oncology* 37, no. 2 (2019): 160–177, <https://doi.org/10.1080/07347332.2018.1555198>.
23. R. L. Boyd, A. Ashokkumar, S. Seraj, and J. W. Pennebaker, *The Development and Psychometric Properties of LIWC-22* (University of Texas at Austin, 2022).
24. J. W. Pennebaker, R. J. Booth, R. L. Boyd, and M. E. Francis, *Linguistic Inquiry and Word Count: LIWC2015*. : Pennebaker Conglomerates, www.liwc.net.
25. D. Lester and S. McSwain, "A Text Analysis of the Poems of Sylvia Plath," *Psychological Reports* 109, no. 1 (2011): 73–76, <https://doi.org/10.2466/09.12.28.pr0.109.4.73-76>.
26. S. W. Stirman and J. W. Pennebaker, "Word Use in the Poetry of Suicidal and Nonsuicidal Poets," *Psychosomatic Medicine* 63, no. 4 (2001): 517–522, <https://doi.org/10.1097/00006842-200107000-00001>.
27. W. E. Hanser, R. E. Mark, and A. J. J. M. Vingerhoets, "Music and Lyric Characteristics of Popular Dutch Funeral Songs," *OMEGA - Journal of Death and Dying* 89, no. 2 (2024): 452–469, <https://doi.org/10.1177/00302228221075471>.
28. M. McDonnell, J. E. Owen, and E. O. Bantum, "Identification of Emotional Expression With Cancer Survivors: Validation of Linguistic Inquiry and Word Count," *Journal of Medical Internet Research* 4, no. 10 (2020): e18246, <https://doi.org/10.2196/18246>.
29. P. Boot, H. Zijlstra, and R. Geenen, "The Dutch Translation of the Linguistic Inquiry and Word Count (LIWC) 2007 Dictionary," *Dutch Journal of Applied Linguistics* 6, no. 1 (2017): 65–76, <https://doi.org/10.1075/dujal.6.1.04boo>.

30. A. A. Kaptein, P. B. van der Meer, F. L. Fisher, H. W. M. van Laarhoven, J. W. Pennebaker, and A. J. J. M. Vingerhoets, "Cancer Talking - Talking Cancer: A Linguistic and Thematic Analysis of Patient Narratives," *Journal of Patient Experience* 11 (2024): 1–7, <https://doi.org/10.1177/23743735241309472>.
31. V. S. Helgeson, B. Jakubiak, M. van Vleet, and M. Zajdel, "Communal Coping and Adjustment to Chronic Illness: Theory Update and Evidence," *Personality and Social Psychology Review* 22, no. 2 (2018): 170–195, <https://doi.org/10.1177/1088868317735767>.
32. J. Cohen, "A Power Primer," *Psychological Bulletin* 112, no. 1 (1992): 155–159, <https://doi.org/10.1037/0033-2909.112.1.155>.
33. S. Garrido, *Why are we Attracted to Sad Music?* (Palgrave, 2017).
34. O. Bullock and J. McFarlane, "Poetry and well-being: A Pilot Programme to Evaluate the Impact of Creative Writing for Patients in short-term and long-term Rehabilitation," *Medical Humanities* 51, no. 1 (2025): 140–146, <https://doi.org/10.1136/medhum-2024-013016>.
35. K. Bernhardsson, *Litterära Besvär* (Ellerström, 2010).
36. B. L. Hørni, *Archipel Du Cancer* (Le Cherche Midi Editeur, 1994).
37. F. Steger, *Am Skalpell war Noch Tinte* (Marix Verlag, 2018).
38. D. von Engelhardt, *Medizin in der Neuzeit* (Mattes Verlag, 2021).
39. Moamai M. Krebs Schreiben. St. Ingbert: Röhrig, (1997).
40. N. Schmidt, *The Wounded Self* (Camden House, 2018).
41. J. C. Jackson, J. Watts, J. M. List, C. Puryear, R. Drabble, and K. A. Lindquist, "From Text to Thought: How Analyzing Language can Advance Psychological Science," *Perspectives on Psychological Science* 17, no. 3 (2022): 805–826, <https://doi.org/10.1177/17456916211004899>.
42. T. R. Patel and J. Hauser, "Communicating in Verse: How Reading Poetry can Expand How we Care for Patients," *Journal of Medical Humanities* (2025): in press.
43. T. K. Paul, Y. Reddy, A. Gnanakumar, et al., "Narrative Medicine Interventions for Oncology Clinicians: A Systematic Review," *Supportive Care in Cancer* 32, no. 4 (2024): 241, <https://doi.org/10.1007/s00520-024-08434-1>.
44. I. Kwok, J. R. Keyssar, L. Spitzer, et al., "Poetry as a Healing Modality in Medicine: Current State and Common Structures for Implementation and Research," *Journal of Pain and Symptom Management* 64, no. 2 (2022): e91–e100, <https://doi.org/10.1016/j.jpainsymman.2022.04.170>.
45. M. Chen, J. Gong, Q. Cao, X. Luo, J. Li, and Q. Li, "A Literature Review of the Relationship Between Dyadic Coping and Dyadic Outcomes in Cancer Couples," *European Journal of Oncology Nursing* 54 (2021): 102035, <https://doi.org/10.1016/j.ejon.2021.102035>.
46. M. Nyfors, R. Pöyhä, A. R. Vehviläinen, and A. Lamminmäki, Writing Connections as a Source of Significance: Group Poetry Therapy Among Patients With Advanced Cancer, *Journal of Poetry Therapy*: in press.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting Information S1: pon70297-sup-0001-suppl-data.docx.