Research Article

Using human and computer-based text analysis of clinical notes to understand military service members' experiences with therapeutic writing☆,☆☆

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ARTICLE INFO

ABSTRACT

Background: Therapeutic writing has been shown to improve both physical health and emotional well-being. This paper examines the usefulness of clinical notes as a data source, and presents two different analyses of individual clinical notes of therapeutic writing group sessions: analysis performed by a person and analysis by a computer-based program (Pennebaker et al., 2015). The therapeutic writing sessions were offered during the second week of treatment at the National Intrepid Center of Excellence (NICoE) as part of an integrative care model for service members (SMs) with traumatic brain injury and underlying psychological conditions to include post-traumatic stress disorder (PTSD).

Method: Therapeutic writing sessions were facilitated in the art therapy studio at the NICoE. The sessions were documented in the military healthcare system's patient record application by the art therapist and art therapy interns at the NICoE. Clinical notes were informed by SM self-report surveys and clinician observations. Notes from May 2012 to 2015 and were pulled and coded manually for emerging themes, then separately analyzed by a computer software text content analysis program (Pennebaker et al., 2015).

Results: Overall, SMs reported more positive than negative, neutral, or mixed emotions during and after the therapeutic writing experience. Some reported a change from negative to positive emotions through the writing process, and many described experiencing relief during and after sessions. SMs wrote on a wide range of topics. Most SMs kept their writing pieces, although some destroyed them or shared them with others, and a few SMs gifted the pieces. Computerized-based analysis (Pennebaker et al., 2015) indicated that work and social were the most prominent content theme areas. It also showed that positive emotions were more evident than negative emotions in the clinical notes and that the focus of the writing pieces was primarily on the present rather than on the past or the future.

Implications: Many SMs perceived the therapeutic writing experience as therapeutic, a relevant coping skill, and enjoyable. Some, however, preferred to work on art therapy projects they had begun in previous sessions (such as mask-making) during the writing sessions. The computer-based analysis of the clinical notes took much less time than the human analysis, but it did not produce results of comparable richness or nuance. Computer-based analysis of the actual therapeutic writing pieces may provide deeper insights into the content and themes that emerged during this therapeutic intervention.

Background

In this paper, we present two main ideas: (a) The potential applications of clinical notes created by therapists as a data source and (b) examination of the potential differences in themes evident in these notes using established methods of thematic analysis (by humans) as well as tools available through linguistic analysis by a computer-based software program (Pennebaker, Booth, Boyd, & Francis, 2015).

Writing about one's deepest thoughts and feelings for 20–30 consecutive minutes without being concerned about grammar, spelling, and punctuation, has been shown to improve both physical health and emotional well-being (Connolly Baker & Mazza, 2004; Lowe, 2006; Mosher & Danoff–Burg, 2006; Sloan, Marx, & Epstein, 2005; Sloan, Marx, Epstein, & Lexington, 2007; Smyth & Helm, 2003). Researchers have investigated the effects of therapeutic and expressive writing with a variety of subject groups, including healthy adults, college students, people with medical diseases, people with traumatic brain injuries, and trauma survivors, including veterans with and without post-traumatic stress disorder (Connolly Baker & Mazza, 2004; Hoyt & Yeater, 2011; Lowe, 2006; Mosher & Danoff–Burg, 2006; Sloan et al., 2005; Sloan, Marx, & Greenberg, 2011; Smyth, Hockemeyer, & Tulloch, 2008). They have also explored the effects of various contexts for expressive writing, including individual and group therapy (2007, Connolly Baker & Mazza, 2004; Lowe, 2006; Mosher & Danoff–Burg, 2006; Nevinski, 2013; Sayer et al., 2015; Sloan et al., 2005, 2011; Smyth & Pennebaker, 2008), family therapy (Baddeley & Pennebaker, 2011; Nevinski, 2013), and independent therapeutic writing for self-help, both in traditional written form (Smyth & Helm, 2003) and using the Internet as an interface (Sayer et al., 2015; Stockton, Joseph, & Hunt, 2014). In a recent study (Sayer et al., 2015, pp. 381–390), specific benefits seen in veterans six months after engaging in an online therapeutic writing task included reduced physical complaints, anger, distress, and reintegration difficulty. They also experienced improved social support compared to veterans who wrote factually or did not write at all (Sayer et al., 2015). When used in the context of formal therapy for veterans with PTSD, recent findings suggest that written exposure therapy (WET) is as efficacious as cognitive processing therapy (CPT) in fewer sessions and with fewer treatment drop-outs (Sloan, Marx, Lee, & Resick, 2018).

There are different ways to analyze the content of such writings. One includes a computer software program, LIWC, which was created and validated as a "transparent text analysis program that counts words in psychologically meaningful categories" (Tausczik & Pennebaker, 2010, p. 24). Through extensive research and experimentation over a number of years, LIWC was developed to "detect meaning in a wide range of settings, including to show … emotionality, social relationships, thinking styles, and individual differences" (Tausczik & Pennebaker, 2010, p. 24). Whether analyzed manually or electronically, therapeutic writing by various population groups, including those with post-traumatic stress disorder, shows great promise as a therapeutic intervention (Connolly Baker & Mazza, 2004; Harrington, 2012; Hoyt & Yeater, 2011; Lowe, 2006; Sloan et al., 2005; Smyth & Pennebaker, 2008). Following is an analysis of feedback from therapeutic and creative writing interventions implemented at the NICoE from May 2012 to May 2015.

Methods

SMs at the NICoE received creative arts therapies as part of an integrative model of treatment for traumatic brain injury and underlying psychological health conditions. The four-week curriculum included individual and group art, music, and dance/movement therapy sessions, as well as a group therapeutic writing session and weekly creative writing workshops. The therapeutic writing sessions were facilitated by the NICoE art therapists and art therapy interns. Service members were asked to write for 15 min about a topic of importance to them. The service members were told that they should write for themselves, and afterwards can opt to do whatever they would like with the writing (keep, shred, throw away, or share). Therapeutic writing sessions were further described in the clinical notes and a sample of this type of note is included below:

> Patient (Pt) seen for 1 hour of writing therapy session designed to encourage the use of writing as an outlet for expression and emotional regulation, and as a potential tool to increase satisfaction with life. Pts were introduced to the benefits of writing, then given one 15 min session to write something important to them, and afterwards invited to shred, keep or share their work. Pt presented with a pleasant affect and interacted well with others. Pt partook in the 15 min writing activity, and afterwards indicated via survey that he wrote on themes of treatment, future goals and family. Pt stated the tone of his work was very hopeful and positive. Pt plans to keep his work, which is a list of goals he'd like to achieve in the future. Pt stated he felt good after the process. Pt will be encouraged to return to future writing sessions in order to explore the utilization of writing as a positive outlet of self-expression.

At the end of the sessions, SMs completed surveys that indicated the tone and content of their writing, their affect during and after the writing process, and their perceived value of the intervention. Based on these surveys and the participants' verbal and non-verbal responses during group sessions, the art therapist and art therapy interns composed clinical notes that were entered into the patient charting system and subsequently the NICoE's clinical database. These notes were written according to a template designed by the lead clinician. This template was based on the self-report surveys that SMs completed and also on setting requirements, the nature of the therapeutic writing groups, clinician caseloads, and time availability for completing notes. The clinical notes were mainly used for documentation purposes and not shared further with SMs. All data at this site was collected as part of standard clinical practice and was then approved for retrospective analysis under an umbrella IRB protocol and stored in a secure database. Clinical notes with all identifiers removed were pulled from a three-year period (May 2012–2015) and comprise the data for this paper. A total of 384 therapeutic writing clinical notes were analyzed using human analysis, and a total of 571 therapeutic writing and creative writing workshop notes were analyzed using computer analysis. The data were de-identified with a new and unique identifier assigned to each SM. Specific demographic data and statistics on the SMs is therefore not available, other than to say that they represented a variety of military branches, ages and races. Most of the SMs at the site were male. As the notes were pulled in retrospect, clinicians were unaware at the time that they wrote them that their notes would be analyzed. Based on the content in these notes, a set of codes was developed to capture the SMs' affects during and after writing, the tone and content of writing, the perceived value of the therapeutic writing experience, and the future of the written pieces. A research assistant coded the clinical notes using a software application for analyzing qualitative and mixed methods research (Dedoose, 2016). A second researcher checked the codes to ensure credibility of the analysis. Thereafter, the themes were tabulated to identify the most commonly occurring responses to the therapeutic writing experience.

SMs also had the opportunity to participate in weekly creative writing sessions led by a professional writers and veterans who focused on creative self-expression. The art therapist and art therapy interns also wrote clinical notes for participants in these sessions. Although these notes were analyzed and included in the computer-based analysis, they are not included in the human analysis section of this paper.

The computer-based analysis included 571 clinical notes on both the therapeutic writing sessions and creative writing workshops. Raw, unidentified data in a spreadsheet were stripped to include only the clinical notes without dates and times of service delivery. This document was imported into the text analysis program (Pennebaker et al., 2015), and a standard linguistic and word count analysis was run. The

results were exported and the mean and standard deviation were calculated for each category. Based on the therapeutic goals addressed in sessions and the goals addressed by expressive writing in the literature, the researchers chose to include the following extant LIWC categories in this paper: authenticity, tone, positive emotion, negative emotion, work, home, family, leisure, social, and focus on past, present, and/or future.

Results 1: human content analysis

The descriptions in the notes (n = 384) revealed several recurring themes in the content and tone of the SMs' writing, the SMs' affects before, during and after the process, as well as their perceived value of therapeutic writing. These descriptions are summarized as follows:

1 Content of writing: References to the content of writing occurred in a majority of the notes (*n* = 295). The references were mostly to *relationships* (*n* = 121), including aspects of writing in relation to family members and friends, and references to how writing can help diffuse tensions and unexpressed distress; to *personal aspirations* (*n* = 104) including goals/lists, leadership, and references to interests/strengths/serenity; to *military/government* (*n* = 101), including general reports of writing on the military, memories of deployment, patriotism, political critique, current events, and government in general; to *treatment/emotion regulation* (*n* = 94), including treatment/treatment experience, feelings/emotions, humor-inspired thoughts, and triggers of anxiety/stress; to *existential* (*n* = 46) including exploration of identity, life/daily life, past/present/future, life and death, purpose/direction, writing as a life story, spirituality, and living in the present; to *trauma/injury* (*n* = 38), including traumatic memories and specific injury-related events/aspects of injury, expressions of frustration about injury-related experience; to *literary elements* (*n* = 19), including elements of writing such as form, rhyming and semantics, fiction, and literary references; and to *other* (*n* = 14), including personal/undisclosed, nothing specific, objects, memory, and dreams (Fig. 1).

2 Tone of writing: Clinicians reported that there were 217 incidences of positive tone evident in the notes, including the descriptors *calm, caring, euphoric, forward-looking, free/free association, funny/*

humorous, happy, helpful, honest, hopeful, insightful, inspirational, optimistic, positive,* and *thankful.* The two most frequently occurring descriptors were *positive* (*n* = 109) and *hopeful* (*n* = 80). Incidents of negative tone (*n* = 98) included descriptors such as *angry, confused, destructive, detached, fearful, foreboding, frustrated, guilty, hateful, lost, negative, regretful, sad, sorrowful, stressful,* and *wary*. Occurrences of a neutral tone of writing were observed far less frequently (*n* = 10) and included descriptors such as *analytical, informative, neutral, restrained,* and *structured*. Other/mixed emotions (*n* = 31) comprised the descriptors *apologetic, concerned, descriptive, inquisitive, questioning, reflective, reminiscent, sarcastic, surreal, thought provoking, unsure,* and *varied,* with *reflective* (*n* = 8) being the most frequently occurring descriptor (Fig. 2).

3 Affect during writing: Clinicians charted that SMs reported experiencing positive emotions (*n* = 154), including calm/relaxed, comfortable, compassionate, confident, content, enlightened, focused, free, good, grateful/thankful, happy, hopeful, joy, love, lucid, motivated, optimistic, positive, proud, and relieved during the therapeutic writing process. The most frequent descriptors were *good* (*n* = 51)*, calm/relaxed* (*n* = 26)*, focused* (*n* = 15)*, positive* (*n* = 13), and *happy* (*n* = 12). Negative emotions in the notes (*n* = 79) included the descriptors alone, *angry/irritable, anxious/stressed, bad, bored, confused, depressed, distracted, empty, exposed/vulnerable, flat/dull/blunted, frustrated, guilty, helpless, lethargic, lost, overwhelmed, pain, regret, sad, somber, sorrow, uneasy, uninspired,* and *upset* during the therapeutic writing process. The most frequent descriptors were *frustrated* (*n* = 20)*, angry/irritable* (*n* = 15)*, sad* (*n* = 14), and *anxious/stressed* (*n* = 7). A total of 10 occurrences of neutral emotions during writing were evident in the notes, including indifferent, matter of fact, normal, and okay, with the most frequent descriptor being *okay* (*n* = 4). Some SMs were also observed to have experienced mixed/other emotions (*n* = 19) during the writing process. These included apologetic, concerned, emotional, happy-sad, mixed emotions, nostalgic, reflective, and undefined, with *reflective* (*n* = 9) being the most frequent descriptor (Fig. 3).

4 Affect after writing: Clinicians described that SMs (*n* = 210) reported experiencing positive emotions (*n* = 191), including better, calm/relaxed, clear, confident, focused, free, good, happy, hopeful, motivated/inspired, open-minded, optimistic, organized, positive,
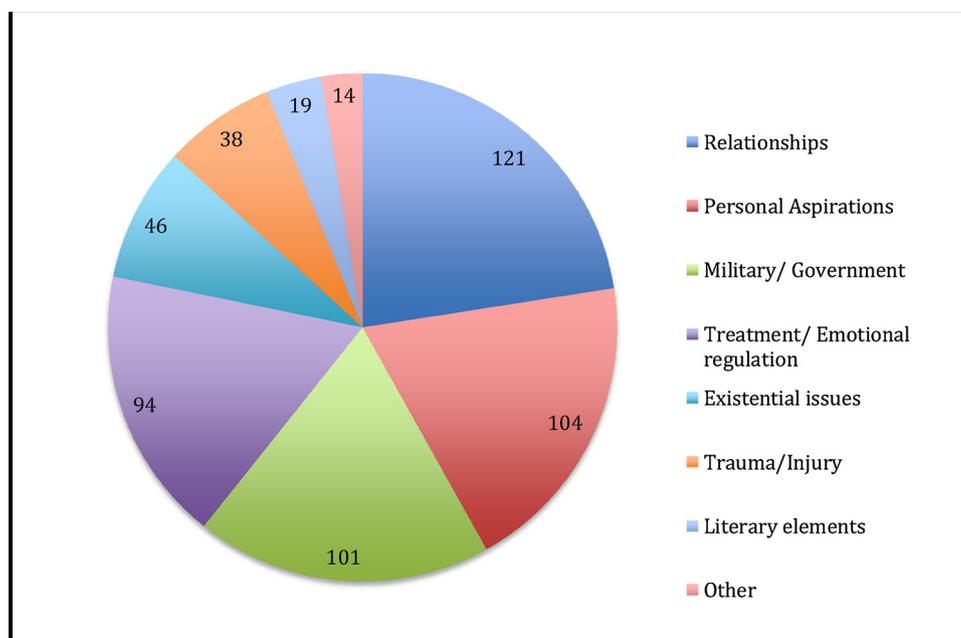

Fig. 1. Content of Writing.
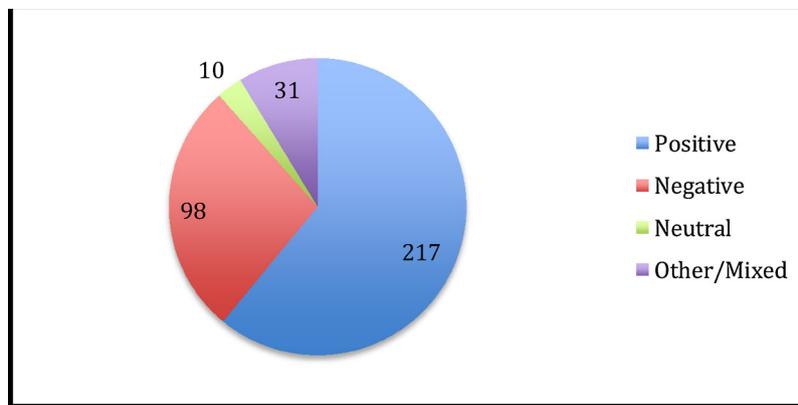Source: Clinical notes, n = 384.

Fig. 2. Tone of Writing.
Source: Clinical notes, *n* = 384.

proud, reassured, refreshed, relieved, satisfied, stable/grounded, strong, and vindicated after the therapeutic writing process. The most frequent descriptors were *good* (*n* = 69)*, calm/relaxed* (*n* = 23)*, positive* (*n* = 26)*, relieved* (*n* = 17)*,* and *better* (*n* = 8). The negative emotions described (*n* = 16) were comprised of the descriptors *angry/irritable, anxious/stressed, awkward, confused, depressed, frustrated, sad,* and *worn out* after the therapeutic writing process. The most frequent descriptor was *worn out* (*n* = 6). The neutral emotions described (*n* = 16) included apathetic, neutral, normal, and okay after the therapeutic writing process. The most frequent descriptor was *okay* (*n* = 7), followed by *neutral* (*n* = 5). Mixed/other emotions (*n* = 12) after the writing process included *reflective* and *unidentified/unsure of how they felt* (*n* = 11), the latter being the most frequent descriptor (Fig. 4).

Perception of value of therapeutic writing

The responses from the SMs (*n* = 249) indicated that they had varied reactions to the therapeutic writing processes. They perceived the sessions as being therapeutic and a relevant coping skill; fewer SMs indicated it was enjoyable and a preferred treatment modality; and a few reported lack of interested in writing as a modality. In references to the experience as *therapeutic* (*n* = 148), they referred to writing as an outlet/creative expression, useful, calming/relaxing, therapeutic, helpful with focus and concentration, enjoyable, cathartic, good/no pressure, thought-provoking, and a mechanism to relive and/or process experiences. In referring to it as a *relevant coping skill,* SMs (*n* = 71) reported that they actively seek follow-up writing sessions while at the NICoE, or reconnect with or continue therapeutic writing on their own.

Many reported finding the sessions *enjoyable* (*n* = 46); some reported that it was enjoyable after working through initial struggles and frustrations. Some SMs (*n* = 52) considered it a less preferable treatment modality and chose to engage in other modalities instead of therapeutic writing (i.e., art/music therapy), or not participate at all. A few (*n* = 35) also reported not being interested because they did not perceive writing to be their forte (*n* = 27); they felt frustrated with the experience and not satisfied with the product (*n* = 8); or they were unable to participate in session (*n* = 9) because of medical constraints (i.e. eye dilation or headache). See Fig. 5 for a summary of the perceptions.

Future of writing pieces

SMs (*n* = 172) had different responses to their physical written work. Most reported that they planned to keep their writing (*n* = 105); some destroyed or planned to destroy their work (*n* = 39); some planned to give/mail their writing to a family member or left their work for the therapist (*n* = 26); and a small number were unsure of what they planned to do with their work (*n* = 7). Often, the SMs who were inspired to write for a family member (*n* = 17) planned to give their work to that family member. See Fig. 6.

Interactions with others

Within the context of therapeutic writing group sessions, some of the SMs (*n* = 55) chose to share their written work with the clinician (*n* = 23) or their peers (*n* = 32). Some SMs (*n* = 9) opened up about concerns related to injury, socialization, or other concerns after the
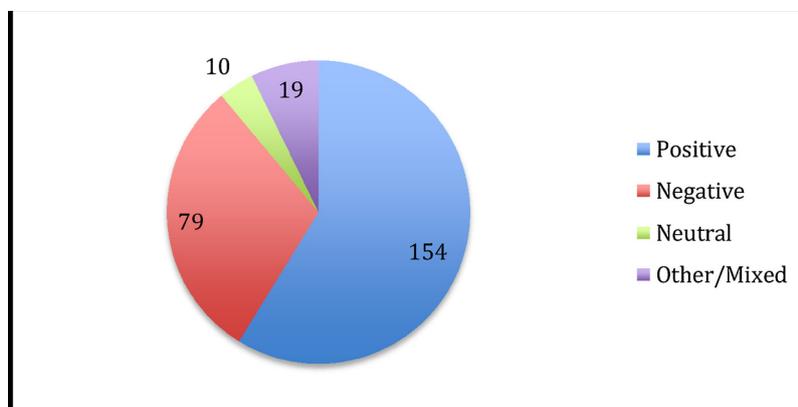

Fig. 3. Reported Affect During Writing.
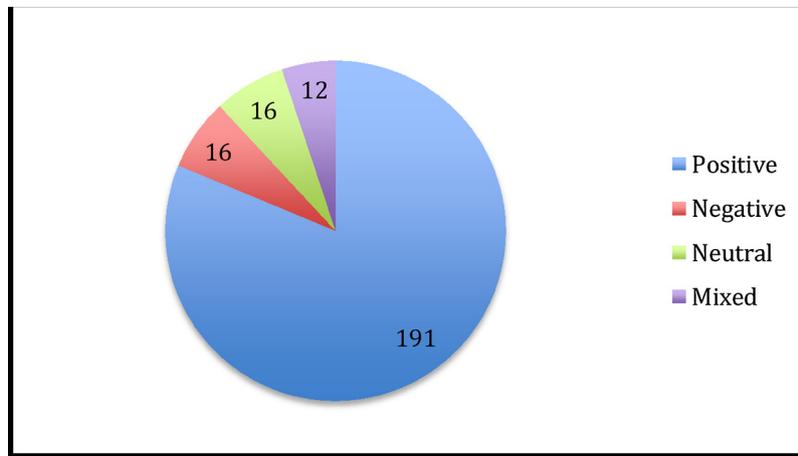Source: Clinical notes, *n* = 202.

Fig. 4. Reported Affect After Writing.
Source: Clinical notes, *n* = 384.

writing experience, whereas a small number chose to socialize with peers during the group session (*n* = 4). A few (*n* = 3) engaged in the writing experience with a spouse/family member present. Only a few SMs (*n* = 3) demonstrated minimal interaction with the group or ir-ritability or frustration to the extent that they chose not to participate. See Fig. 7.

As can be seen from Figs. 1–7, the human analysis of the notes provides a range of data related to the SMs' experiences including in-teractions, tone and content in the writing, affect during and after writing, and what they chose to do with the written piece when the session was over. The next section discusses the results from computer-based text analysis of the same clinical notes.

Results 2: computer-based text analysis

The computer-based analysis provides percentages of different types of linguistic elements in the text. Specific categories that showed the highest percentages in the clinical notes included the following content areas: work (*M* = 14.5%, *SD* = 4.2); and social (*M* = 10.1%, *SD* = 1.6). Positive emotions (*M* = 6.3%, *SD* = 1.7) were seen to be a higher percentage of text than negative emotions (*M* = 0.7%, *SD* = 0.8), and focus on the present (*M* = 6.1%, *SD* = 1.2) was higher than focus on the past (*M* = 5%, *SD* = 1.1) or the future (*M* = 2.8%, *SD* = 1). See Figs. 8 and 10 for representative graphs.

Figs. 8–10 summarize some of the findings from the linguistic analysis of the text. Overall, the results indicated that clinical summa-ries of SMs writing refer mostly to the present (rather than the past or the future) and included more positive emotion words than negative emotion words and that the writing refers to work and social aspects of

life, more so than to family or leisure.

Discussion and recommendations

We presented potential applications of clinical notes created by therapists as a data source and differences in themes evident in these notes using established methods in thematic analysis (by humans) as well as tools available for linguistic analysis by a computer-based software program (Pennebaker et al., 2015).

In the clinical setting where the data were generated, the partici-pants were not required to share their writing. In fact, they were often motivated to participate because they were "writing for themselves." The feedback they provided to the clinicians who facilitated the ses-sions helped with creating the clinical notes, and these in turn served as the data source for both sets of analyses. The clinical notes offer insights into the experiences of the participants in the absence of any other data about their experiences. The notes are brief and structured per the protocols of the clinical settings and can be treated as a proxy data source about the participants' perceptions of the experiences of ther-apeutic writing. In addition, clinical notes might be considered a data source in health care settings where data generated by the participants are not readily available. The one limitation of data source is that it does not represent the participant's own voice; therefore, the inter-pretations are limited to the information provided by the therapists. Additionally, even when clinical notes are written according to proto-cols, they include different language and nuances depending on the reporting clinician, thereby possibly influencing (mostly electronic) content analysis results. Narrative analysis is best conducted on nar-ratives generated by the participants but in the absence of such data,
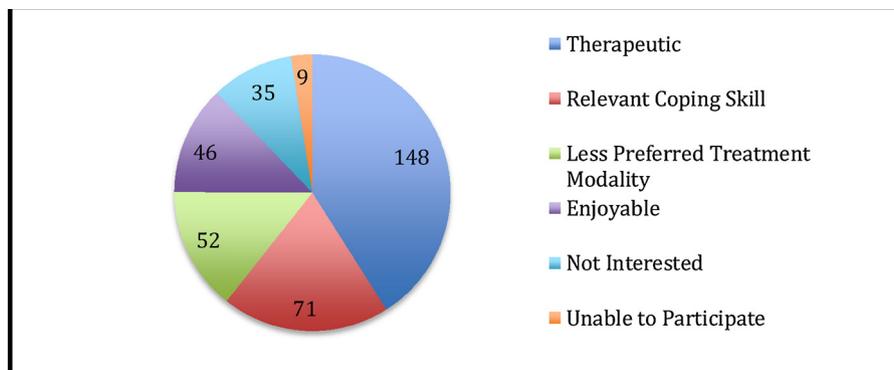

Fig. 5. SMs' Perceptions of Value of Therapeutic Writing.
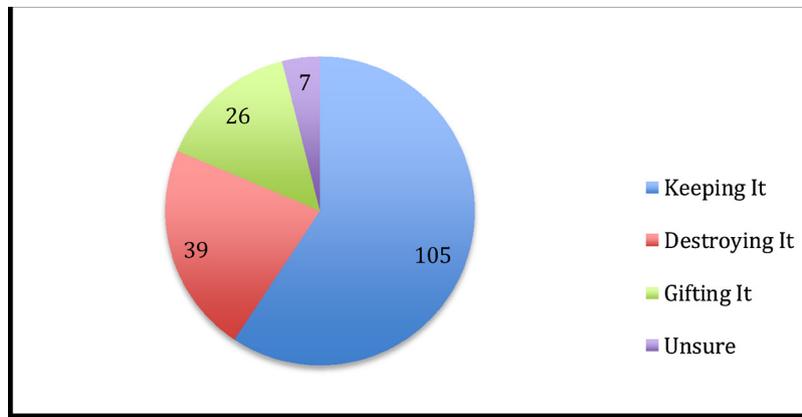Source: Clinical notes, n = 384.

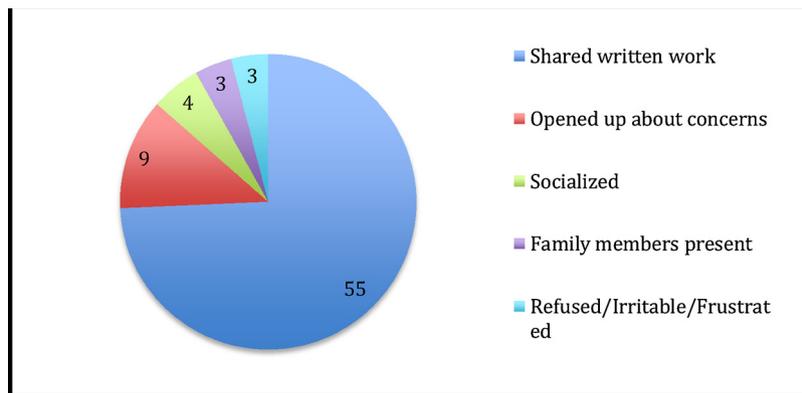**Fig. 6.** SMs' plans for what to do with the written pieces.

Fig. 7. SMs references to interactions with others during the therapeutic writing sessions.
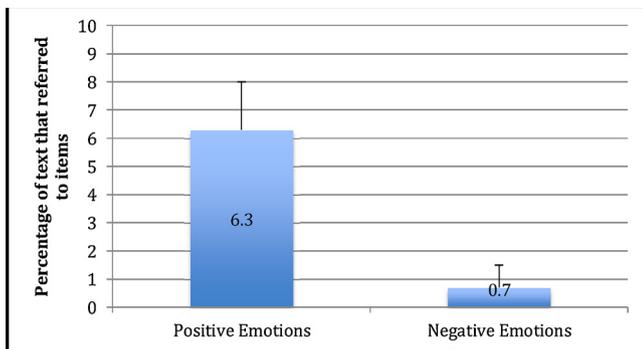

Fig. 8. Positive Emotions and Negative Emotions.
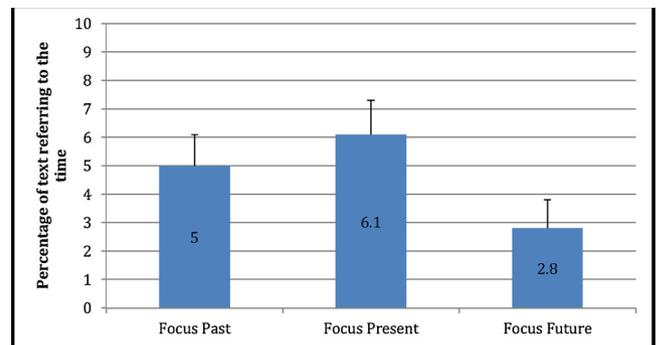Source: Computer-based text analysis of therapist clinical notes.

Fig. 10. Percentage of text focusing on past, present, or future.
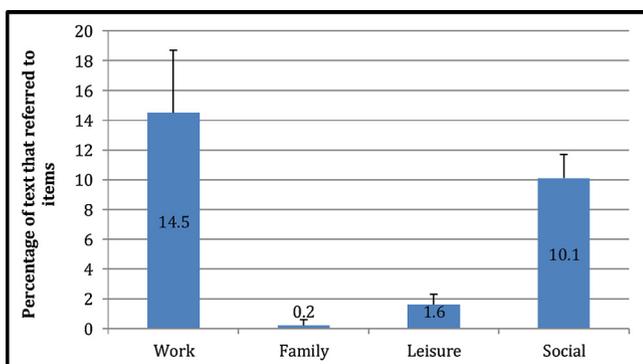Source: Computer-based text analysis of therapist clinical notes.

Fig. 9. Percentage of text referring to work, family, leisure, social interaction.
Source: Computer-based text analysis of therapist clinical notes.

clinical notes could be considered to examine patients' experiences and outcomes. The outcomes of this paper have been shared with the clinicians who input the clinical notes, which has added to the clinicians' motivation to create standardized templates for charting so that language is less nuanced depending on practice or writing style. Efforts to implement these templates are underway at the clinical site. The same has been acknowledged regarding standardized outcome measures, which will be addressed below.

Congruent with the literature (Baddeley & Pennebaker, 2011; Connolly Baker & Mazza, 2004; Harrington, 2012; Hoyt & Yeater, 2011; Lowe, 2006; Mosher & Danoff–Burg, 2006; Nevinski, 2013; Sayer et al., 2015; Sloan et al., 2011; Smyth & Helm, 2003; Smyth et al., 2008; Stockton et al., 2014) and per the clinical coded notes, SMs derived benefit and enjoyment from attending therapeutic writing group sessions. Some general trends included a larger number of negative

emotion descriptors (*n* = 25) during writing compared to a much smaller set of negative emotion descriptors (*n* = 8) after writing. Positive affect was more prominent during and after writing than was negative, neutral, or mixed affect. Interestingly, there was a slight shift to more empowered, stronger positive affect descriptions after writing compared to during writing, as evidenced by the added descriptors reassured, strong, and vindicated. The human analysis and computer-based text analysis both showed the highest percentages in *relationships* (highest ranked theme in human analysis) and *social* (second highest ranked theme in computer-based text analysis) – both capturing highly similar thematic elements. Otherwise, there are few connecting points, such as positive affect/emotions in both. Overall, they appeared to focus on different details. For example, the human analysis focused on *personal aspirations* (second highest ranked theme) to include hopes surrounding future endeavors and plans regarding relationships, health, and work. The computer-based text analysis focused on *work* (highest ranked theme) as a subcategory of *personal concerns*, not necessarily reflecting hope but rather anxiety surrounding work specifically. The human analysis gave richer and more nuanced descriptions whereas the computer-based text analysis pointed to a more general picture.

The process of preparing data for entry into the computer-based text program (Pennebaker et al., 2015) is time-consuming because the data have to be cleansed of all typographical errors as well as of names and identifiers. In addition, the formatting must be consistent. Once these initial data-cleansing steps are complete, the data analysis using the computer-based program takes very little time. Within seconds, the software (Pennebaker et al., 2015) generates a list of linguistic indicators for each piece of text (in this case the text of clinical notes). The list is useful in providing a time-efficient overview of linguistic elements in the text in terms of percentages of these elements. Although the computer-based text analysis program (Pennebaker et al., 2015) captured and analyzed the data faster than the humans, the results did not demonstrate the subtle differences (e.g. affect/feelings during compared to after writing) or in-depth results provided by human analysis, largely because the notes were fairly short and were written by a clinician who was once removed from the process. The textual analysis performed by humans is labor and time intensive but can provide a level of meaning in the interpretation that the computer-based text analysis cannot. In addition, the human can categorize data in unlimited numbers of themes, but the computer-based text analysis is constrained by a predetermined set of categories. There seemed to be limited overlap in the themes identified in the data.

Recommendations for future clinical implementation and research include adding standardized measures to determine (a) clearer trends regarding changes in affect from the beginning to the end of the therapeutic writing process; (b) a sense of empowerment and self-efficacy *after* writing interventions compared to *before*; and (c) the effect of writing interventions on processing or letting go of traumatic events and personal losses and the effect that gifting, keeping, or destroying writing pieces has on this process. The data from the clinical notes did not incorporate any standardized measures and thus it is hard to determine what, if any, specific changes occurred for SMs as a result of the sessions. After completing the writing experiential and filling out the survey SMs are invited into verbally discuss how they felt about the process with the group, the content of which the clinicians try to capture in the clinical notes. However, we recommend that SMs be given a more formal opportunity at the completion of the activity to reflect on what they included and expressed in their writing that they may not have in other forms of expression or treatment. Analysis of the actual therapeutic writing samples would provide a deeper understanding of the therapeutic process and the mechanisms of change that are present in the process. This outcome is especially true for the computer-based text analysis program used (Pennebaker et al., 2015) because the program seems to be more suited for analyzing longer first-person writing samples (personal communication, Joshua Smyth, August 2016), however it must be considered that collection of writing samples may

change SMs' comfort levels with the process, and in turn shift the content of SMs' writing. Areas for future research may also include following up with the SMs to (a) learn whether they are deriving any benefits from continued writing and (b) examine the impact of gifting their written work to others in regards to repairing or strengthening relationships, reintegrating into old relationships and environments, and feelings of confidence and trust related to self-disclosure through written expression. Some SMs reported feeling hopeful and/or relieved during and after the writing process. Future research may explore the impact of these and other emerging phenomena on the short-and long-term sustained outcomes of therapeutic writing. Expressive writing as an approach has traditionally not involved extensive support from a clinician. However in this context and given the vulnerabilities of the SMs, the writing sessions were reframed as therapeutic writing sessions and were facilitated by a trained clinician who has already built rapport with the SMs through art therapy sessions. This might have helped support authentic self expression in a safe environment. It would therefore be helpful to examine if the SMs' experiences of writing in such a therapeutic writing session would be different from an independent therapeutic writing intervention similar to those referred to by Sayer et al. (2015) and Stockton et al. (2014), either without a facilitator or with a facilitator present online. Telehealth based interventions are increasingly being offered in the creative arts therapies (Levy et al., 2017) and such comparative studies could shed light on the differences between in person, online and individual writing experiences and thus more clearly the role and impact of the therapist.

Acknowledgement

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