Cancer treatment experiences among survivors of childhood sexual abuse: A qualitative investigation of triggers and reactions to cumulative trauma

JULIE B. SCHNUR, PH.D., MATTHEW J. DILLON, B.S., RACHEL E. GOLDSMITH, PH.D., AND GUY H. MONTGOMERY, PH.D.

Department of Oncological Sciences, Integrative Behavioral Medicine Program, Icahn School of Medicine at Mount Sinai, New York, New York

(RECEIVED April 6, 2017; ACCEPTED July 18, 2017)

ABSTRACT

Objective: Some 25% of women and 8% of men in the United States have experienced childhood sexual abuse (CSA) before the age of 18. For these individuals, healthcare visits and interactions can be retraumatizing due to perceived similarities to past abuse (e.g., pain, undressing, lack of control). However, no prior studies have provided formal qualitative analyses regarding CSA survivors' reactions to cancer treatment. Therefore, our study's objective was to identify key themes pertaining to CSA survivors' cancer treatment experiences.

Method: Male and female members of the Amazon Mechanical Turk (N=159, mean age = 44.27 years, SD=10.02) participated in an anonymous online survey study. The inclusion criteria included reporting: history of CSA; a diagnosis of colorectal, gynecological, breast, or skin cancer; and experience of triggers and/or difficulties during cancer treatment. Participants' responses to open-ended questions were analyzed using inductive thematic analysis.

Results: We identified two primary themes describing CSA survivors' experiences: Theme 1: treatment-related triggers (key subthemes: procedure-related, provider-related, and emotional triggers); and Theme 2: questioning the meaning of cumulative trauma (e.g., "Why me again?").

Significance of results: For CSA survivors, cancer and its treatment can trigger thoughts and emotions associated with the original abuse as well as negative evaluations of themselves, the world, and their future. Our findings are consistent with past research on CSA survivors' experiences in non-cancer healthcare settings and add to the literature by highlighting their struggles during cancer treatment. The present results can inform further research on trauma survivors' reactions to cancer treatment and give cancer care providers the context they need to understand and sensitively serve a substantial yet often overlooked patient group.

KEYWORDS: Cancer, Qualitative, Childhood sexual abuse, Retraumatization, Patient experience

INTRODUCTION

The present line of research—exploring cancer treatment experiences among survivors of childhood sexual abuse—began with a breast cancer patient who had been sexually abused by her father. Although

she believed that she had addressed and processed the abuse successfully in psychotherapy several years before, she reported the following reaction to her breast biopsy:

I was completely unprepared. I did not realize the vulnerability I would feel when I had to lie down on a table, put my breast through a hole and remain completely still. I was told not to move—and knew I couldn't scream. That replicates my sexual trauma:

Address correspondence and reprint requests to: Julie B. Schnur, Department of Oncological Sciences, Box 1130, Icahn School of Medicine at Mount Sinai, 1425 Madison Avenue, New York, New York 10029-6574. E-mail: julie.schnur@mssm.edu.

I was a terrified girl in my bed, unable to move or scream. (Schnur & Goldsmith, 2011, p. 4054)

The literature demonstrates that this patient is not alone—her trauma history and her frightened reactions to healthcare are disturbingly common. In the United States, 25% of women and 8% of men have experienced unwanted or abusive sexual experiences before the age of 18 (Pereda et al., 2009), and more than 1.6 million individuals will be diagnosed with new invasive cancers in 2016 (Siegel et al., 2016). These rates, together with the increased incidence of cancer among survivors of childhood sexual abuse (Brown et al., 2013), indicate that the cooccurrence of a history of childhood sexual abuse (CSA) and cancer is relatively common.

Across healthcare settings, CSA survivors can struggle with, and in fact can be retraumatized by, medical procedures due to perceived similarities with the original abuse (Dallam, 2010). For example, both CSA and medical procedures can involve feeling submissive to authority figures, undressing, and pain. Many CSA survivors report feeling powerless or threatened in healthcare settings and report experiencing posttraumatic stress (PTS). PTS experiences in healthcare settings can include: intrusive thoughts; emotions (e.g., shame, embarrassment, fear); avoidance (e.g., avoiding screening or other medical appointments because they trigger CSA-related distress [Alcala et al., 2016]); and memories associated with the original abuse. In combination, this set of reactions is referred to as "healthcare retraumatization." Healthcare retraumatization has been documented in qualitative studies in non-cancer settings (e.g., OB/GYN care, physical therapy, dentistry [Roberts et al., 1999; Schachter et al., 1999; 2004]), as well as in quantitative studies (Willumsen, 2004; Leeners et al., 2007; McGregor et al., 2010) and literature reviews (Schachter et al., 1999; Monahan & Forgash, 2000; Havig, 2008). However, most qualitative research on healthcare retraumatization among CSA survivors has focused on routine medical care (e.g., OB/GYN, primary care, screening procedures, dentistry). Few studies have specifically explored how patients with a history of CSA experience cancer treatment, despite the frequency, duration, and intimacy of such cancer care.

The few case reports and case series that have examined CSA survivors' emotional responses to cancer treatment document a range of difficulties. Among 18 individuals with cancer and histories of CSA, Gallo-Silver and Weiner (2006) identified such issues as intense emotional distress, nonadherence to treatment, disturbances in relationships with members of their healthcare team, and dissociation that prevented the ability to integrate medical information. The re-

searchers noted that all 18 patients in their sample reported having upsetting memories of their abuse arise during cancer treatment. Wygant and colleagues (2011) focused on the experiences of one CSA survivor with advanced cancer. The patient struggled with insomnia, trust in the medical team, avoidance of male physicians, and claustrophobia that diminished the patient's capacity to tolerate such procedures as magnetic resonance imaging. Schnur and Goldsmith (2011) described the experiences of two cancer patients with histories of CSA. The patients indicated that aspects of biopsy, surgery, and radiotherapy each triggered memories of the abuse. Although these case reports provide clinical insights into the experiences of CSA survivors with cancer, they all have small sample sizes (n = 1 to n = 18), and all are anecdotal. To date, there has been no formal qualitative analysis to understand the cancer treatment experiences of a large sample of men and women with a history of both CSA and cancer.

Therefore, the objective of the present study was to explore the cancer treatment experiences of CSA survivors, with a particular focus on the most difficult and triggering aspects of treatment. To understand and address CSA survivors' difficult experiences in cancer settings, we must first listen carefully to the survivors themselves.

METHODS

Reporting Standards

This manuscript follows the COREQ (COnsolidated criteria for REporting Qualitative research) reporting standards (Tong et al., 2007). For details, please see the COREQ Checklist (Supplementary Table 1; see Supplementary Materials).

Study Design

This project was part of a larger anonymous online survey study that was designed to increase understanding of CSA survivors' experiences of cancer treatment. Our study was approved by the Program for the Protection of Human Subjects at our institution.

Setting

For our study, we took an anonymous online survey approach because: (1) the anonymity permitted by the internet has the potential to reduce participant self-censorship, shame, embarrassment, and fear of judgment/stigmatization (Griffin et al., 2003; Caplan & Turner, 2007); and (2) trauma survivors may feel less inhibited in responding to surveys using computer-based questionnaires (East et al., 2008). In particular, we chose to recruit a convenience

Table 1. Sample characteristics

	Participants $(N = 302)$
	(M, SD)
Age	34.5, 9.95
nge	n (%)
Cancer type	n (70)
Skin	120 (39.7%)
Breast	72 (23.8%)
Gynecologic (ovarian, cervical)	79 (26.2%)
Colorectal	31 (10.3%)
Gender	01 (10.9%)
Female	212 (70.2%)
Male	90 (29.8%)
Race	30 (23.0%)
White	250 (82.8%)
Other	52 (17.2%)
Ethnicity	02 (11.2%)
Latina	27 (8.9%)
Not Latina	275 (91.1%)
Education	2.0 (01.170)
< College education	161 (53.3%)
≥College education	141 (46.7%)
Region of residence	111 (10.176)
South	135 (44.7%)
Northeast	52 (17.2%)
Midwest	65 (21.5%)
West	50 (16.6%)
Community type	
Urban	92 (30.5%)
Suburban	149 (49.3%)
Rural	61 (20.2%)

sample of participants anonymously from Amazon Mechanical Turk (MTurk). MTurk in particular was chosen as a recruitment site because it is an active crowdsourcing site for conducting online psychological research, including populations impacted by cancer and trauma (Shapiro et al., 2013; Arch & Carr, 2016). The benefits of MTurk include the ability to reach large and geographically diverse samples, including individuals living in remote areas, and the potential to include individuals who might not be able or willing to meet with investigators in person. Past research has demonstrated that the quality of MTurk data is comparable to non-internet-based samples across various tasks (Paolacci et al., 2010; Buhrmester et al., 2011; Sprouse, 2011), and that MTurk members tend to be honest about self-reported information (Rand, 2011).

We recruited participants by posting a Human Intelligence Task (HIT) on the MTurk website. Individuals browsing the HITs initially saw the survey title "Survey of childhood sexual abuse history & reactions to cancer care (men and women over 21)." Individuals interested in participating could click on this title to view a short description of the study and its eligibility criteria.

If participants chose to proceed, they clicked to view a more detailed information page that included: the name, professional title, and departmental and institutional affiliations of the principal investigator (PI); a statement that the research group was interested in understanding the cancer care experiences of individuals who experienced childhood sexual abuse and who were diagnosed with cancer as an adult; and that our goal was to improve the sensitivity of cancer care. Participants were also informed that the PI's interest in the topic was to "directly inform the cancer care community about this important issue" and to "guide the development of sensitive practice guidelines for physicians and other healthcare providers working with individuals who have experienced childhood sexual abuse."

Sampling and Recruitment

The eligibility criteria for the larger parent study included: age ≥ 21 ; reporting CSA before age 13 (based on the Centers for Disease Control definition [Breiding et al., 2014]); being diagnosed with cancer after age 21; being an MTurk member; having completed at least 100 prior MTurk assignments (HITs); having at least 95% of those HITs approved as satisfactory; and living in the United States. This residency inclusion criterion was chosen to reduce the variability associated with medical practices/procedures in different parts of the world.

To be included in the present qualitative study, individuals had to meet the above criteria and also report having been diagnosed with and treated for breast, skin, gynecological, or colorectal cancer; report no cancer other than these; and respond to at least one of two open-ended questions that were part of the larger survey:

- 1. As an individual who experienced childhood sexual abuse, what was the most difficult part of cancer treatment and why?
- 2. During cancer treatment, were there specific triggers of childhood sexual abuse memories? If so, what?

Some 420 participants met these eligibility criteria. We then coded their responses to indicate the presence or absence of CSA-related difficulties or triggering. Responses were coded as "present" if they described difficulties or triggers that were explicitly related to CSA or that have been associated with CSA in the literature (e.g., "feeling unsafe with the male doctors and nurses due to my past sexual abuse," "being touched in one of my most private areas"). Responses were coded as "absent" if participants indicated that they did not experience any

CSA-related triggers or difficulties by responding "no" or "nothing"; that they saw no relationship between their CSA history and their experience of cancer; or by describing only cancer-related difficulties (e.g., nausea, fatigue, concerns about mortality). Of the 420 eligible participants, 118 (28.1%) indicated an absence of CSA-related difficulties or triggers, and 302 (71.9%) indicated the presence of CSA-related difficulties or triggers. These 302 participants were included in the study's analyses. Given that the openended questions were optional, no data were collected on participants' reasons for a nonresponse.

Data Collection

The survey was hosted on PsychData.com and was completed by participants entirely online. There was no relationship between the investigators and participants prior to study commencement. Participants were paid \$3.00 US for survey completion. All data were collected during three periods of data collection (3/24/15-3/31/15, 12/23/15-12/25/15, and 1/11/16-1/12/16), after which investigators reviewed the data. After the third period, investigators agreed that thematic saturation had been reached and ended recruitment. There were no follow-up or repeat surveys.

The open-ended questions described above, and analyzed in the present paper, were developed by the first author, a female Ph.D.-level clinical psychologist and faculty member in a cancer prevention and control program, in conjunction with the other investigators. The first author has previous training in qualitative research, and three of the four coinvestigators are clinical psychologists with experience working with individuals with cancer and trauma histories. These questions had been pilot-tested in previous online research.

All the collected qualitative data were typed by participants as responses to the two open-ended questions analyzed in this study; there were no audio or visual recordings. Given that responses were typed directly by participants, no transcripts were sent for comment and/or correction. No prompts or guides on how to respond to the questions were provided by the investigators. Data are not available on how long it took participants to respond to the two open-ended questions since they were embedded in a longer survey. No fieldnotes were collected, as the investigators did not receive the participants' responses in real time—only after they were submitted through PsychData.com. The anonymous online survey format means that we do not know specifically where patients completed the questions (e.g., home, workplace) or whether anyone else was present at the time of survey completion.

Participants also responded to a demographics and medical history survey asking about their age, cancer type, gender, race, ethnicity, and educational status.

Data Analysis

Survey responses were downloaded from PsychData.com and imported into NVivo (v. 10 for Windows; QSR International, Chicago, IL) for data management. For this project, we employed thematic analysis, following the approach described by Braun and Clarke (2006). We conducted an inductive thematic analysis, meaning that our analysis was data-driven, rather than driven by a preexisting framework. Themes were not identified in advance; they were derived from the data. Analytic procedures were as follows: Phase 1—all of the investigators familiarized themselves with the data by reading the set of open-ended responses; Phase 2—two of the investigators generated initial codes individually, and then met together to discuss their initial codes. By the end of Phase 2, these two coders had generated 46 initial codes; Phase 3—the two coders worked together to sort these codes into four broader themes, and sought input from the other investigators to resolve discrepancies; Phase 4—the set of investigators reviewed and refined the themes, checked to ensure that the data within themes were internally consistent, and worked to ensure that themes were clearly distinguishable from one another. At this point, the set of investigators sorted the original 46 codes into two primary themes, the first of which had three key subthemes (see Supplementary Table 2 [Supplementary Materials] for our coding tree); and Phase 5—the set of investigators jointly defined and named the two themes and selected illustrative quotes for each. Given that this was an anonymous study, and that participants only consented to initial survey completion, they were not recontacted to provide feedback on the findings.

RESULTS

Participants

See Table 1 for a summary of participants' demographic characteristics and types of cancer.

Primary Themes

We developed two primary themes describing the difficulties and triggering experienced by CSA survivors undergoing cancer treatment: (1) treatment-related triggers (key subthemes: procedure-related, provider-related, and emotional triggers); and (2) questioning the experience of cumulative trauma

Table 2. Key theme 1A: Procedure-related difficulties by cancer type

	Illustrative quotations	Study ID#, gender
Colorectal	"When anything is inserted into my anus, is one of the worst times, as is any examinations of my lower regions."	205, Male
	"The most difficult part was having to give up control to be put under anesthesia. I feel this is because it made me feel really scared and vulnerable, like someone could do anything to me and I would be unable to do anything about it."	20, Female
	"The radiation, I had to lay there naked and have people touch my pelvic area, I was not allowed to move or I might be greatly injured and I would have to start the procedure all over again."	164, Female
Gynecologic cancer	"Knowing that I would have to have checkups and have someone examine an area of my body that I was not comfortable with. Having ovarian cancer meant that the information came from the area below my waist, and since I am still nervous about anyone touching me there, it was very difficult for me to not have a panic attack during exams."	107, Female
	"The most difficult part was having no control over what was happening. I had cervical cancer and any pain in my private areas was very difficult to deal with as I was abused as a child and lived thru terrible pelvic pain during those incidences."	249, Female
	"Any time I was touched in my genital region I had to suppress lots of feelings of anger and memories related to my sexual abuse as a child."	207, Female
Breast cancer "I	"The cervical Scrap reminded me of the rape exam." "having to be poked and prodded by people in authority positions because it reminds me of my experience of sexual abuse as a child."	279, Female 74, Female
	"I hated taking my clothes off before surgery. I dont like being topless" "showing and exposing my breast made me feel vunerable i dont like people looking at my body especially male doctors."	25, Female 272, Female
Skin cancer	"the touching me on different parts of my body while I was being examined, after they discovered I had skin cancer, and the treatment. I can't stand to be touched by anyone, even when people consider it affectionate touching. I like people to keep their distances."	263, Female
	"The melanoma was on my thigh, and a lot of contact was made with my thighs both during the treatment, and my assaults. Thereby this was very triggering to me."	188, Female
	"When the doctor was inspecting my body, it reminded me of when my mother and father would fondle me."	262, Male

("Why me again?"). Each theme is presented below, along with illustrative quotations in Tables 2–5.

Theme 1: Treatment-Related Triggers

This theme focused on the ways in which undergoing cancer treatment triggered participants' CSA-related memories and emotions. Parallels were noted between cancer care experiences in the here and now, and distressing memories of there and then. Specifically, participants revealed the parallels they perceived between: how they felt physically during treatment and how they felt physically during the CSA; what they were required to do during treatment and what they were forced to do during the CSA; how they felt emotionally during cancer and its treatment and how they felt emotionally during the CSA; and how the feelings they had about their abusers were projected onto their cancer treatment providers. These parallels are described in more detail in the three key subthemes below (procedure-related, provider-related, and emotional triggers).

Theme 1A: Procedure-Related Triggers

The list of procedures that participants found difficult or triggering was extensive (see Supplementary Table 2 [Supplementary Materials]), but across participants, the most commonly mentioned difficult procedures were: (1) anesthesia—participants were distressed by being touched, viewed, examined, and operated upon when they were unconscious, vulnerable, and unable to defend themselves; (2) physical examinations—participants mentioned being distressed by having their bodies inspected, penetrated, and commented on; (3) undressing—associated with feeling exposed, anxious, uncomfortable, and ashamed; and (4) being touched, particularly being touched in intimate areas of the body, such as the upper thigh, buttocks, face, lower back, and genital/ pelvic/"below-the-waist" areas. Treatments that combined multiple difficult procedures were seen as particularly distressing. For example, radiotherapy was mentioned as a procedure that involves undressing, being touched in "private areas," and having to

Table 3. Key theme 1B: Provider-related difficulties by cancer type

	Illustrative quotations	Study ID#, gender
Colorectal cancer	"Every exam with an older male physician, I've been healing for a while and it brought it back."	141, Male
Gynecological cancer	"I felt that my oncologist was treating me in the same manner as my abusersas a piece of meat, and something to be conquered before they could move on and conquer the next person."	248, Female
	"Trusting people, strangers, in positions of authority. Allowing them to do unknown things to my body because it was supposed to "be good for me" and "help" me. I am much, much better than I used to be and have gone through a lot of therapy in my life but trusting strangers is still pretty scary for me."	159, Female
Breast cancer	"The way people talk to you. The whole it's going to be ok, trust me, I will take care of you. Those sayings really bothered me alot."	37, Female
	"I saw a Dr. during treatment who looked like the double of my abuser. I wanted to run but instead I cried in fear. Just as a child, I cried out and no one came. I guess they just thought I was having a meltdown."	24, Female
	"I absolutely do not like to be touched by males except for my spouse so anythime a male nurse would touch me, I understood hes just doing his job and hes not my permanent nurse but it triggered memories I did not like."	21, Female
Skin cancer	"great example is the skin procedures to remove layers of cancer, I was awake but my back was numb. I was half naked, numb and had a man in full control of my being - huge trigger."	184, Female
	"Being ok with so many other people touching and commenting on my body, since I've avoided situations like that because of past abuse."	23, Female

lie perfectly still throughout or risk injury. Illustrative quotes are given in Table 2.

Theme 1B: Provider-Related Triggers

Participants also shared how providers, in terms of their particular characteristics, were triggering. The two most commonly mentioned provider characteristics were: (1) provider gender—male providers, particularly older male providers, were seen as threatening when the abuser had been male. This was true regardless of the male provider's profession. Participants mentioned feeling anxious and uncomfortable with male nurses, male radiation therapists, and male physicians; and (2) unfamiliarity with the provider—providers who were new and who were seen as "strangers" were particularly anxiety-provoking. Illustrative quotes are presented in Table 3.

Theme 1C: Emotional Triggers

The previous themes related to external stimuli or physical sensations that served as triggers. Theme 1C focused instead on how patients' intrapsychic emotional experience during cancer treatment served to trigger memories of the emotions experienced during CSA. The range of emotions described as triggers were extensive, but three were the most common. First, participants expressed feelings of powerlessness, vulnerability, and a lack of control, which was far and away the most commonly reported

emotional trigger. Participants discussed feeling that their bodies were subject to forces outside of their control (i.e., cancer), feelings of diminished agency, a lack of options or choices, and a sense that they were vulnerable to and powerless before providers. These feelings of being vulnerable and defenseless strongly reminded participants of how powerless and vulnerable they felt during CSA. Second, participants reported elevated stress levels and described cancer as the most difficult stressor since the CSA, and that the stress itself evoked memories of the CSA. Third, participants described struggling with uncertainty and fears of the unknown, not knowing what to expect, and dreading what was to come, which also reminded them of their experience of abuse. Illustrative quotes can be viewed in Table 4.

Theme 2: Questioning the Experience of Cumulative Trauma (Why Me Again?)

Theme 2 reflects participants' plaintive questioning of why, after being subject to CSA, they were subject to a *second* bodily assault—cancer. They felt it was unfair for them to get cancer, as childhood abuse was understandably perceived as enough trauma for one lifetime. They wondered if they were unlucky or doomed or cursed, and whether they would be subject to a life of one trauma after another. They both dreaded and expected that they would continue suffering and wondered if they were "bad" in some way

Table 4. Key theme 1C: Emotional triggers by cancer type

	Illustrative quotations	Study ID#, gender
Colorectal cancer	"Feeling like I was not in control. It reminded me of the experience of being molested as a child and not being in control of the situation."	32, Male
	"I feel shame with some doctors when I have to be undressed and probed by them." "The weakness. It sounds silly but I felt helpless just like when I did when it all happened."	31, Male 284, Female
Gynecological cancer	"The most difficult part of treatment was the feeling of not being in control, of being helpless in the face of something bigger and stronger than I was. I felt, once again, that I was powerless and that I wasn't controlling my destiny, that the cancer was."	247, Female
Breast cancer	"The scary emotions I had during treatment reminded me of childhood abuse." "The most difficult part is trusting someone else on how to treat my body. After my abuse, I always made it a point that me and me alone should have the final decision on what to do with my body. Putting that trust in someone else was difficult."	287, Female 69, Female
	"The lack of control you feel of your body and decisions. Cancer takes over just like sexual abuse takes over your feeling of control."	78, Female
	"I think the most difficult part was trusting my body and my health to people I didn't know and relying on them not to hurt me. I was going into a situation that I'd never been in before, and I had to depend on strangers to help me. I couldn't even trust people close to me not to do me physical harm."	105, Female
	"Feeling a lack of control over my body and life. A violation."	258, Female
Skin cancer	"Feeling very vulnerable, and that I had no control over the sickness, it took me back to the vulnerable spot I was in when I was sexually abused."	56, Male
	"The only correlation I can make is that I once again felt like I couldn't control myself/my body and that it was entirely up to someone else to be in charge of my fate."	135, Male

 Table 5. Key theme 2: Questioning the experience of cumulative trauma by cancer type

	Illustrative quotations	Study ID#, gender
Colorectal cancer	"It was more or less thinking that my life couldn't get much worse and things seem to happen to me at all stages of it."	209, Male
Gynecological cancer	"The most difficult part is the fact that I experienced a traumatic incident when I was younger and now I experience something else traumatic because I often feel like nothing can go right for me and that I'm being punished for something."	136, Female
	"I felt reviolated. It was as if I were receiving an additional punishment." "There is always this feeling of how unlucky can one hman be, why is this happening to me, and how worse can my life get? And lieing on the table, all exposed makes it all hurt ever so much more."	280, Female 298, Female
Breast cancer	"The fact that something is happening to your body AGAIN that you have little control over."	73, Female
	"Feeling lost as a person, I felt like I lost so much of my childhood and now as an adult I've lost a lot of what makes me feel like an adult. The physical ability to choose."	101, Female
Skin cancer	"Because my mind was already messed up of the sexual abuse as a child and now I got cancer so it makes me wonder am I ever going to get a break am I ever going to be okay"	176, Male
	"I hated my body and felt like it was corrupted because my past experiences. I also blamed myself quite a bit for my cancer."	221, Male
	"Feeling like the world was completely unfair to me. I thought as an adult things would be better because I would have more control over the outcome of my life. Apparently chance events still occur which I may not be able to change, but must endeavor to overcome."	172, Male
	"Feeling like a victim. I didn't understand why I was receiving a scary a threatening cancer diagnosis on top of what I felt like was already a LOT of past trauma/stress already."	296, Female

to deserve this additional suffering. Illustrative quotes can be seen in Table 5.

Diverse Cases and Minor Themes

As one might expect, given that each participant's experience of CSA was unique, many participants reported idiosyncratic triggers. Examples of idiosyncratic sensory triggers included: "When people would talk to me in low voices it would take me back for some reason" (ID #36); "Laying on my back trying to stay still" (ID #254); "for some reason the center where I went for the actual treatment (not my dermatologist who I know well) made me very uneasy. The spaces seemed more closed in, which has always been bad for me (small spaces are a big trigger)" (ID #64); and, "Once, my doctor touched my ear and his hand was cold. I was extremely uncomfortable because my abuser used to lick my ears" (ID #245).

DISCUSSION

Summary of Main Findings

For many CSA survivors, the experience of cancer and its treatment is shadowed by their prior history of abuse. This shadow means that procedures that some might consider minor or innocuous are viewed as invasive and humiliating; that cancer care providers may be perceived as predatory, suspect, and threatening, and that cancer, a biological aberrance, can be viewed as proof of being cursed or doomed.

Comparison with Previous Literature

To our knowledge, this is the first study to apply formal qualitative analytic methodology to understanding the cancer treatment experiences of a large sample of male and female CSA survivors. The themes identified here are consistent with past research on healthcare retraumatization in CSA survivors in noncancer settings and move the field forward by adding specifics unique to cancer.

Our finding of sensory and relational triggers in Theme 1 is consistent with past research on CSA survivors' healthcare retraumatization (Havig, 2008; Cadman et al., 2012). As in past research, we too found that participants were triggered by specific aspects of healthcare such as intimate procedures, undressing, or touch (Gallo-Silver & Weiner, 2006; Cadman et al., 2012). Also consistent with past research, our study found that participants mistrusted and felt vulnerable with medical providers (Roberts et al., 1999), who they felt had power over their health and even survival. Participants' reactions to providers are also consistent with the larger trauma literature demonstrating that CSA survivors com-

monly retain relationship patterns shaped by prior abuse (e.g., submitting to authority, expecting mistreatment and betrayal). These patterns influence their relationships in adulthood, including their relationships with healthcare providers (Brière & Hodges, 2010). Participants' responses also demonstrate how intrapsychic, emotional experiences—in addition to sensory or relational experiences—can trigger memories and feelings associated with past abuse. Although the triggering effects of emotions have been demonstrated in other chronic illness contexts (e.g., HIV [Sikkema et al., 2007]), to our knowledge, we are the first to demonstrate this phenomenon in the context of cancer treatment.

Theme 2 reflects participants' struggling to process what they viewed as being punished by cancer when they had already been punished by abuse. A sense of being doubly powerless—that is, assaulted by both CSA and by disease status—has been observed among HIV-infected adults with histories of CSA (Sikkema et al., 2007). However, to our knowledge, patients' interpretations of the "double trauma" of cancer and CSA have been only minimally addressed in the cancer-treatment literature.

CSA survivors commonly hold schemas of the world as unsafe, of other people as untrustworthy, and of themselves as scarred. The traumatic stress literature often refers to a model of shattered assumptions (Janoff-Bulman, 1992) to depict how trauma can destroy individuals' pre-trauma perceptions of others and the world as generally benevolent and safe. For survivors of CSA, a cancer diagnosis and subsequent treatment might fit a model of confirmed assumptions, in which additive trauma corroborates prior schemas of life as unsafe and unfair; of suffering as inescapable; of others as dangerous; and of the self as shameful, powerless, defective, or doomed. Responses from our study mirror findings showing that childhood abuse and/or negative trauma appraisals impact the way that individuals respond to additional trauma as adults (Babcock & DePrince, 2012).

Implications for Practice and Policymakers

We hope that the present results spur further research to: (1) determine the prevalence of triggering and treatment-related retraumatization among CSA survivors with cancer; (2) explore the implications of triggering on adherence to cancer screening and treatment; and (3) develop and test interventions to improve CSA survivors' cancer treatment experiences.

In general, cancer care providers may find it useful to adopt guidelines on sensitive and trauma-informed practice when working with CSA survivors. Prior research suggests that trauma-informed sensitive care can mitigate CSA-related triggers and trauma appraisals in healthcare screening and treatment settings (Cadman et al., 2012; Gesink & Nattel, 2015). For a thorough discussion of how to deliver trauma-informed sensitive care to CSA survivors, interested readers are encouraged to review the Handbook on Sensitive Practice for Health Care Practitioners: Lessons from Adult Survivors of Childhood Sexual Abuse (Schachter et al., 2009).

STRENGTHS AND LIMITATIONS OF THE STUDY

Like any study, ours has its limitations. First, the sample is entirely composed of MTurk members living in the United States with one of four cancers, and the participants were predominately white, non-Latino, and living in urban/suburban areas. Future research should explore the generalizability of the results to other groups (e.g., community samples, individuals with other cancers). Second, this paper is exclusively focused on individuals who have experienced CSA. The literature on cancer patients with childhood abuse histories demonstrates that other forms of abuse (e.g., physical and emotional) can also impact the cancer treatment experience (Salmon et al., 2007; Clark et al., 2011). Therefore, future research should explore the influence of a wider variety of adverse childhood events, as well as adult traumatic events, on cancer treatment experiences. Third, the open-ended questions analyzed here focused specifically on upsetting experiences (difficulties and triggers) during cancer treatment. We did not collect information on helpful moments during treatment, factors that made patients feel safe, or moments of empowerment. Future research should seek CSA survivors' input on what helped them to feel safe and empowered during treatment. Fourth, in any qualitative research, reflexivity is an important concern (Malterud, 2001). Reflexivity has been described as an "attitude of attending systematically to the context of knowledge construction, especially to the effect of the researcher, at every step of the research process" (Malterud, 2001, p. 484). We recognize that our professional backgrounds likely shaped our research process and interpretation.

The study also has two primary strengths. Most notably, it is the first to use formal qualitative analysis to explore the cancer treatment-related experiences of CSA survivors in depth. The present findings add to the small but extant literature about CSA survivors with cancer. Another strength of the study is its use of MTurk as a recruitment site. The sample size attained, the large numbers of men and women who participated, the geographic reach, and the rich data collected while preserving participant anonymity demonstrated the potential of MTurk as

a recruitment tool for future qualitative research with cancer patients and CSA survivors.

CONCLUSIONS

Our results revealed that many CSA survivors are challenged by cancer and its treatment in ways that are related to their childhood abuse experiences. For CSA survivors, the very cancer-related procedures and provider relationships that are required to save their lives can trigger distressing memories and emotions associated with their past abuse. We hope that the present study raises awareness about how patients experience cancer treatment when past CSA intersects with current cancer care, and that such increased awareness can help providers empathize with the CSA survivors whom they treat. In particular, we hope that the results help providers become more emotionally attuned to their patients, and in doing so, recognize the courage it takes for many survivors to pursue cancer treatment despite enduring treatment-related triggering and emotional distress. We believe that such recognition and attunement will help improve the CSA survivor experience of cancer care and help survivors feel supported and understood as they navigate their cancer journey.

ACKNOWLEDGMENTS

Research reported in this publication was supported by the National Cancer Institute of the National Institutes of Health (award nos. R21CA173163 and R25CA166042). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. The funder had no role in study design, data collection, data analysis, manuscript preparation, or publication decisions. We are very grateful to the participants for sharing their experiences.

SUPPLEMENTARY MATERIALS

To view supplementary materials for this article, please visit https://doi.org/10.1017/S147895151700075X.

REFERENCES

Alcala, H.E., Mitchell, E. & Keim-Malpass, J. (2016). Adverse childhood experiences and cervical cancer screening. *Journal of Women's Health (Larchmont)*, 26(1), 58–63.

Arch, J.J. & Carr, A.L. (2016). Using Mechanical Turk for research on cancer survivors. *Psycho-Oncology*. doi: 10.1002/pon.4173. Epub ahead of print Jun 10.

Babcock, R.L. & DePrince, A.P. (2012). Childhood betrayal trauma and self-blame appraisals among survivors of intimate partner abuse. *Journal of Trauma & Dissociation*, 13(5), 526–538.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

- Breiding, M., Basile, K., Smith, S., et al. (2014). Sexual Violence Surveillance: Uniform Definitions and Recommended Data Elements, Version 2.0. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Available from https://www.cdc.gov/violenceprevention/pdf/sv_surveillance_definitionsl-2009-a.pdf,
- Brière, J. & Hodges, M. (2010). Assessing the impacts of early and later childhood trauma in adults. In *The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic*. R.A. Lanius et al. (eds.), pp. 207–216. New York: Cambridge University Press.
- Brown, M.J., Thacker, L.R. & Cohen, S.A. (2013). Association between adverse childhood experiences and diagnosis of cancer. *PLoS One*, 8(6), e65524. Available from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3679131/.
- www.ncbi.nlm.nih.gov/pmc/articles/PMC3679131/.
 Buhrmester, M., Kwang, T. & Gosling, S.D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3–5.
- Cadman, L., Waller, J., Ashdown-Barr, L. & Szarewski, A. (2012). Barriers to cervical screening in women who have experienced sexual abuse: An exploratory study. The Journal of Family Planning and Reproductive Health Care, 38(4), 214–220.
- Caplan, S.E. & Turner, J.S. (2007). Bringing theory to research on computer-mediated comforting communication. Computers in Human Behavior, 23(2), 985–998.
- Clark, L., Beesley, H., Holcombe, C., et al. (2011). The influence of childhood abuse and adult attachment style on clinical relationships in breast cancer care. *General Hospital Psychiatry*, 33(6), 579–586.
- Dallam, S.J. (2010). A Model of the Retraumatization Process: A Meta-Synthesis of Childhood Sexual Abuse Survivors' Experiences in Healthcare. Doctoral dissertation, Graduate Program in Nursing. Lawrence: University of Kansas. Available from https://search.proquest.com/docview/305205775.
- East, L., Jackson, D., O'Brien, L., et al. (2008). The benefits of computer-mediated communication in nursing research. *Contemporary Nurse*, 30(1), 83–88.
- Gallo-Silver, L. & Weiner, M.O. (2006). Survivors of child-hood sexual abuse diagnosed with cancer: Managing the impact of early trauma on cancer treatment. *Journal of Psychosocial Oncology*, 24(1), 107–134.
- Gesink, D. & Nattel, L. (2015). A qualitative cancer screening study with childhood sexual abuse survivors: Experiences, perspectives and compassionate care. *BMJ Open*, 5(8), e007628. Available from https://www.ncbi.nlm.nih.gov/pubmed/26246075.
- Griffin, M.G., Resick, P.A., Waldrop, A.E., et al. (2003). Participation in trauma research: Is there evidence of harm? *Journal of Traumatic Stress*, 16(3), 221–227.
- Havig, K. (2008). The health care experiences of adult survivors of child sexual abuse: A systematic review of evidence on sensitive practice. *Trauma*, *Violence & Abuse*, 9(1), 19–33.
- Janoff-Bulman, R. (1992). Shattered Assumptions: Towards a New Psychology of Trauma. New York: Free Press.
- Leeners, B., Stiller, R., Block, E., et al. (2007). Effect of childhood sexual abuse on gynecologic care as an adult. *Psychosomatics*, 48(5), 385–393.
- Malterud, K. (2001). Qualitative research: Standards, challenges, and guidelines. *Lancet*, 358(9280), 483–488.

McGregor, K., Julich, S., Glover, M., et al. (2010). Health professionals' responses to disclosure of child sexual abuse history: Female child sexual abuse survivors' experiences. *Journal of Child Sexual Abuse*, 19(3), 239–254.

- Monahan, K. & Forgash, C. (2000). Enhancing the health care experiences of adult female survivors of childhood sexual abuse. *Women & Health*, 30(4), 27–41.
- Paolacci, G., Chandler, J. & Ipeirotis, P.G. (2010). Running experiments on Amazon Mechanical Turk. *Judgment* and *Decision Making*, 5(5), 411–419.
- Pereda, N., Guilera, G., Forns, M., et al. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical Psychology Review*, 29(4), 328–338.
- Rand, D.G. (2011). The promise of Mechanical Turk: How online labor markets can help theorists run behavioral experiments. *Journal of Theoretical Biology*, 299, 172–179.
- Roberts, S.J., Reardon, K.M. & Rosenfield, S. (1999). Childhood sexual abuse: Surveying its impact on primary care. *AWHONN Lifelines*, 3(1), 39–45.
- Salmon, P., Holcombe, C., Clark, L., et al. (2007). Relationships with clinical staff after a diagnosis of breast cancer are associated with patients' experience of care and abuse in childhood. *Journal of Psychosomatic Research*, 63(3), 255–262.
- Schachter, C.L., Stalker, C.A. & Teram, E. (1999). Toward sensitive practice: Issues for physical therapists working with survivors of childhood sexual abuse. *Physical Therapy*, 79(3), 248–261.
- Schachter, C.L., Radomsky, N.A., Stalker, C.A., et al. (2004). Women survivors of child sexual abuse: How can health professionals promote healing? *Canadian Family Physician*, 50, 405–412.
- Schachter, C.L., Stalker, C.A., Teram, E., et al. (2009). Handbook on Sensitive Practice for Health Care Practitioners: Lessons from Adult Survivors of Childhood Sexual Abuse. Ottawa: Public Health Agency of Canada. Available from http://publications.gc.ca/collections/ collection_2010/aspc-phac/HP20-11-2009-eng.pdf.
- Schnur, J.B. & Goldsmith, R.E. (2011). Through her eyes. Journal of Clinical Oncology, 29(30), 4054–4056.
- Shapiro, D.N., Chandler, J. & Mueller, P.A. (2013). Using Mechanical Turk to study clinical populations. *Clinical Psychological Science*, 1(2), 1–8.
- Siegel, R.L., Miller, K.D. & Jemal, A. (2016). Cancer statistics, 2016. CA: A Cancer Journal for Clinicians, 66(1), 7–30.
- Sikkema, K.J., Hansen, N.B., Kochman, A., et al. (2007). Outcomes from a group intervention for coping with HIV/AIDS and childhood sexual abuse: Reductions in traumatic stress. *AIDS and Behavior*, 11(1), 49–60.
- Sprouse, J. (2011). A validation of Amazon Mechanical Turk for the collection of acceptability judgments in linguistic theory. *Behavior Research Methods*, 43(1), 155–167.
- Tong, A., Sainsbury, P. & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357.
- Willumsen, T. (2004). The impact of childhood sexual abuse on dental fear. *Community Dentistry and Oral Epidemiology*, 32(1), 73–79.
- Wygant, C., Hui, D. & Bruera, E. (2011). Childhood sexual abuse in advanced cancer patients in the palliative care setting. *Journal of Pain and Symptom Management*, 42(2), 290–295.