Hysterectomy, Metaphor, and Voice:

An Exploratory Study of Surgery Experiences

by

Katherine M. Russell

A.B., Smith College,
M.S., Antioch University New England
Psy.D. Candidate, Antioch University New England

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The undersigned have examined the dissertation entitled:

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by

Katherine M. Russell

Candidate for the degree of Doctor of Psychology
and hereby certify that it is accepted*.

Dissertation Committee Chairperson:
Gargi Roysircar Sodowsky, PhD

Dissertation Committee members:
Vic Pantesco, EdD
Thomas Stearns, PhD

Accepted by the
Department of Clinical Psychology Chairperson

George Tremblay, PhD
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***** Signatures are on file with the Registrar's Office at Antioch University New England.

Table of Contents

List of Tables

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Abstract

The experience of surgery may lead patients to form narratives that are dominated by medical terminology (Lapum, Angus, Peter, & Watt-Watson, 2010) rather than their own *voice*, or "capacity to speak on one's own behalf, in terms that are not given by others" (Monk, Winslade, Crocket, & Epston, 1997, p. 306). In turn, patients may struggle to feel personally in control of their healing process. The subjective quality of metaphors can allow patients to articulate their surgery experience in a voice unique to them; facilitating patients' sense of agency in the process of healing. In particular, women who have undergone a hysterectomy may find metaphorical narrative accounts of their surgeries helpful in establishing a voice. An online experimental design was used with women who had had hysterectomies to examine the connection between metaphor, patient voice, internal locus of control, and anxiety. Demographic information and anxiety scores were collected before participants were exposed to one of two experimental conditions: a medical narrative or a metaphorical narrative. After participants read one of these narratives, they answered questions related to patient voice, the Multidimensional Health Locus of Control (MHLC) Form C, and the State-Trait Anxiety Inventory (STAI) Form Y-1. To analyze data, t-tests and two ANCOVAs were performed. It was found that those participants assigned to the medical narrative condition self-reported higher levels of voice. In addition, there was a trend in the data suggesting that those assigned to the metaphorical condition reported lower levels of Doctors Health Locus of Control (HLC). The implications of these findings are discussed, with specific regard to how language may have an impact on individuals' sense of being heard, understood, and able to express their surgical experience. Limitations of the study's methodology and recommendation for future research are addressed.

Keywords: surgery, hysterectomy, metaphor, narrative, voice, locus of control, anxiety

Hysterectomy, Metaphor, and Voice:

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Chapter 1

Following surgery, patients are asked to be agents in their healing and thereby begin to shed understanding themselves as only within the patient role. During this post-surgery adjustment, including the immediate and long-lasting time after the operation, the experience of surgery and its transforming the body and self are often given meaning within patients' narratives. The process of reconstructing one's narrative and coming to rediscover oneself after a literally transformational physical experience can be stressful, however. The surgery process, often performed when the patient is unconscious, may be inherently elusive to patients. Additionally, while patients may have the medical explanation of their surgery when establishing their surgery narratives, they may do so at the cost of establishing a more personalized way of expressing the experience through their own "voice," or "the capacity to speak on one's own behalf, in terms that are not given by others" (Monk, et al., 1997, p. 306). Such a loss of authorial voice may lead to post-operative psychological distress— explaining the increased patient anxiety, depression, and loss of control from pre-operation to discharge to recovery (Speidel, 1990).

Expressing the experiences of surgery through metaphor can provide patients a way of understanding and articulating abstract concepts related to the surgery experience in a manner that feels true to their experience. The shift of patients' voices from objective language, which may ignore their internal experience, to more subjective, metaphorical language may increase voice. This increase in voice can lead to an increased sense of personal, internal locus of control. Such a sense of agency within the healing process may decrease levels of stress, thereby reducing psychological disruption (Cepeda et al., 2008) and even decreasing wound-repair time

(Mumford, Schlesinger, & Glass, 1982; Robles, 2007).

While the literature has explored narrative formation following surgeries (Cepeda et al., 2008), there is a lack of research regarding the ability of metaphor to increase voice and thereby increase patient sense of personal control. Of the literature that does explore metaphors and the illness experience, there is a focus on either the medical communities' use of metaphor to describe illness (Gallagher, McAuley, & Moseley, 2013) or the types of metaphors used by patients to describe illness and surgery experiences (Boylstein, Rittman, & Hinojosa, 2007; Gibbs & Franks, 2002; Reventlow, Overgaard, Hvas, & Malterud, 2008). Thus, research seems to focus on the defining types of metaphors utilized within illness narratives, but fails to examine the beneficial outcomes of constructing personalized metaphors. Therefore, there is still a need to further research metaphors as elements that can benefit the healing process post-surgery, as well as foster a greater sense of personal voice.

The present study explores the relationships between the use of metaphor to describe the surgery and post-surgery experience and sense of personal voice, agency, and anxiety. Specifically, the relationships between metaphorical narrative voice in hysterectomy narratives will be explored within a newly author-created measure of patient voice as well as measures of locus of control and anxiety. The remainder of the chapter outlines current literature that suggests the importance of metaphor in increasing postsurgical voice, states research questions for the present study, and defines key terms.

Illness, Narrative, and the Loss of Personal Voice

With sickness often comes story. Narratives about the history and progression of illness are essential when communicating with health care providers, which also help individuals understand themselves as patients (Harter, Japp, & Beck, 2005). Illness, which imposes itself

onto individuals, "erodes the image we have constructed [of ourselves] over the years" (Pellegrino, 1981, p. 72) and forces us to make meaning of our experiences as patients (Frank, 2013). Narratives aid patients in the tasks of understanding illness, how to incorporate it into their identities, and in "repair[ing] the damage that illness has done to the ill person's sense of where she is in life, and where she may be going" (Frank, 1995, p. 53).

While the illness narrative "gives coherence to the distinctive events and long-term course of suffering" (Kleinman, 1988, p. 49), a story is difficult to tell without words. Patients may find themselves unable to articulate their experiences of illness through story because while "the body is certainly not mute—it speaks eloquently in pains and symptoms…it is inarticulate" (Frank, 1995, p. 2). Already struggling to construct a narrative that will incorporate the bodily, illness experience and unable to fully verbalize this experience itself, patients will defer to the conventional medical narrative and the objective language within it (Frank, 1995; Hawkins, 1993). Without a sense of personal voice and control in their healing process, however, patients may struggle to regain a narrative that speaks to them as a whole person rather than simply a patient.

Postsurgical Narratives

In everyday life, "there is no motive to recover the metaphorical character of experience. We understand each other well enough without having to understand this understanding" (Romanyshyn, 1981, p. 16). Surgery, however, is not a usual occurrence. Bodily modifications and psychological experiences related to surgeries upset typical understandings of self, "forc[ing] a radical reappraisal" (Pellegrino, 1981, p. 72) and patients experience several psychological changes over a relatively short period of time (Speidel, 1990). The processing and reconstruction of the self does not end post-operatively, though, and surgery affects the physical and

psychological functioning of patients beyond discharge from the hospital (Speidel, 1990). The following section outlines the tension between patients' need to understand and articulate their post-surgery experience and the difficulties in doing so.

The "Inarticulate" Surgical Body

Surgeries leave patients' bodies initially wounded and forever altered. These changes to the body can sometimes be easily seen, such as, after a mastectomy, and in other cases are more subtle, such as, after the removal of the gallbladder. Whether or not alterations to the body are noticeable, "even when one is 'cured,' the experience of illness leaves its imprint. Body and self are never again quite so comfortably united" (Pellegrino, 1981, p. 73). Conventional medicine may not focus on the psychological impact that arises from having the relationship with one's body compromised or on how to give this experience voice (Frank, 1995). Even when "healed," post-surgery patients may find it difficult to "cease to be patients, and return to their normal obligations" (Frank, 2005, p. 8) because they are healing from something that transcends bodily modification—the invisible touch of surgery, a disruption of their narrative.

This bodily transformation and the effect it has on individuals may be difficult for post-surgery patients to articulate. Moreover, surgery itself is often fairly obscure, both in how it is described and the process by which it occurs: surgeons may be more likely to speak to patients using technical language (Drife, 2008), and surgery requires a complete surrendering of the body to a process in which patients are often not conscious. Thus, the surgery process itself may feel quite distant to a patient, even though its effects may continue to be evident through continued pain, changes in lifestyle, or lasting scars. As individuals try to reconstruct their narratives to understand the experience of and following surgeries, they may find themselves at a loss to articulate narratives about surgeries that they were unable to actively take part in and that were

described to them in medical terminology. In such a context, patients do not only lose a sense of personal voice, but a sense of personal control regarding their healing processes.

Hysterectomy

Hysterectomies, or the removal of the uterus through surgery, are performed on approximately 600,000 women per year in the United Sates (Whiteman et al., 2008). According to reports by the Center for Disease Control (Whiteman et al., 2008), hysterectomies are the second most common surgery for reproductive aged women. Hysterectomies can be either elective or necessary. Many women will elect surgery for reasons such as endometriosis and fibroid tumors. Necessary surgeries are frequently performed on patients who have cancer of the reproductive system. Emergency peripartum hysterectomies (EPH) are performed under necessary conditions as well.

Depending on the reason for hysterectomy, different surgeries can be performed: (a) partial or supracervical hysterectomy in which the cervix is left intact; (b) complete or total hysterectomy in which both the uterus and cervix are removed; (c) hysterectomy with bilateral salpingo-oophorectomy in which the uterus, cervix, fallopian tubes, and ovaries are removed; and (d) radical hysterectomy, in which the fallopian tubes, upper vagina, some surrounding tissue, and lymph nodes are removed. In addition, there are three current surgical techniques used for hysterectomies: (a) total abdominal hysterectomies (TAH), (b) vaginal hysterectomies, and (c) laparoscopic hysterectomies. TAH allow for the surgeon to have an unobstructed view of the uterus; these operations, however, often leave a larger scar and require more healing time than the less invasive vaginal hysterectomies and laparoscopic hysterectomies.

Kincey and McFarlane (1984) outlined three clusters of issues surrounding the experience of hysterectomy: (a) negative mood states such as anxiety and depression, (b)

impaired psychosexual functioning, and (c) reactions related to 'self-concept.' However, the literature has been contradictory regarding the effects of hysterectomies on women's self-concept, feminine identity, sexuality, and psychological well-being.

Due to the feminine symbolic significance of the uterus, including its societally constructed connection to "womanhood," the psychological effect of its removal has been widely researched. Barker (1968) discovered that the rate of women referred to psychiatrists around 4.5 years following a hysterectomy was 2.5 times greater than that for other surgeries and 3 times greater than the general female population. Similarly, Hollender (1960) found that two times more women were admitted to a psychiatric hospital one year post hysterectomy than after other surgeries. More current research, however, suggests that hysterectomies are related to increased well-being and physical function (Majumdar & Saleh, S., 2012; Markovic, Manderson, & Warren, 2008; Rannestad, Eikeland, Helland, & Ovarnström, 2001; Thaka et al., 2004). This may speak to both surgical improvements made since the 1960s, as well as a societal shift in acceptance of women having such surgeries.

Although reported wellness and psychological functioning may increase following a surgery, such scores may still be below those of the general population (Thakar et al., 2004). Psychological distress and persistent postsurgical pain following a hysterectomy may also be predicted by presurgical anxiety, depression, or trauma (Digel Vandyk, Brenner, Tranmer, & Van Den Kerkhof, 2011; Pinto, McIntyre, Nogueira-Silva, Almeida, & Araújo-Soares, 2012). In addition, reason for or type of surgery may have an effect on postsurgical outcomes. Surgeries performed on malignant tumors and EPH appear to be correlated with poorer psychological functioning following the hysterectomy (de la Cruz et al., 2013; Majumdar & Saleh, 2012).

It is hypothesized that social constructions of femininity may influence a woman's

postsurgical psychological response (Elson, 2003; Dell & Papagiannidou, 1999). It is thereby possible that as societal understandings of femininity become less reliant on a woman's reproductive ability, the removal of the uterus becomes a less psychologically upsetting experience. Elson (2002) suggests that women who have undergone premenopausal hysterectomies may be propelled to reconstruct or dissociate from a normalized association with their menarche.

Regardless of how hysterectomies may affect the feminine identity, these surgeries do objectively change the body. The removal of the uterus is a real and physically significant alteration that can allow women to experience less physical pain. Yet it should not be assumed that the decrease in pain means that women who have undergone a hysterectomy are not in need of understanding their experience. The changes to the body itself may be unclear or non-elected by women, as surgeons may find a need to remove more than the uterus during operations. Moreover, although research has explored self-concept, psychological variables, and menstrual symptoms of women with hysterectomies, there is an interestingly symbolic absence of research directly exploring changes in patients' relationship with their uterus, or sense of meaning given to their uterus.

The importance of the physician-patient relationship in helping the patient to make an informed decision about her hysterectomy as well as providing empathic support is a fairly consistent finding (Byles, Hanrahan, & Schofield, 1997). It is important for physicians to recognize that women who have had hysterectomies may have minimized their pain for several years and tended to delay seeking medical help (Uskul, Ahmad, Leyland, & Stewart, 2003). Such women may continue to minimize their psychological distress following their surgeries. Regardless, women appear to appreciate the opportunity to tell their surgery story and "to know

they weren't alone" (Byles et al., 1997, p. 249). Such findings suggest that it may be particularly important for hysterectomy patients to feel that their story was heard and understood during their surgery experience.

Metaphor

"A person with a sharp eye can find metaphors almost anywhere." (Gibbs & Matlock, p. 161, 2008)

Although we may not always be aware of when we utilize metaphors in speech, it has been found that they are quite common in everyday language. Research suggests that about 10% of speech is comprised of metaphors (Cameron, 2008). The exact boundaries and functions of metaphors are greatly contested by the current literature. The traditional view of metaphor is that it is simply a linguistic structure. Relevance theory (Sperber & Wilson, 2008) proposes that metaphor is just as important an aspect of speech as any other, however. Most currently, conceptual metaphor theory (Lakoff & Johnson, 1980) advances that metaphors uniquely allow us to construct our understandings and experiences of the world. The following section explores what a metaphor is, the functions of metaphors, and the importance of metaphors within illness narratives.

What is a Metaphor?

Metaphors are commonly defined as linguistic structures in which one thing is described in terms of another (Landau, Robinson, & Meier, 2014). Within this broad definition, however, researchers struggle to outline the boundaries of what can be considered a metaphor. In general, nominal metaphors may be the easiest type of metaphor to identify. Nominal metaphors use one noun to describe another (Chen, Widick, & Chatterjee, 2008). Take, for example, the phrase "his lawyer is a shark." In this statement, a lawyer (noun) is being understood to hold certain

properties of a shark (noun). Now let us explore the phrase "he fell in love." When reading this statement, the reader is conscious that the verb "to fall" is being used in a figurative sense rather than a literal one. This use of verbs in a figurative manner is considered a predicate metaphor (Chen et al., 2008).

Conceptual Metaphor Theory

Conceptual metaphor theory (CMT), first proposed by Lakoff and Johnson (1980), posits that "people speak metaphorically because they think metaphorically" (Landau et al, 2014, p.5). Thus, within CMT, metaphors are not simply linguistic structures, but also fundamental mechanisms to how individuals understand and construct their experiences and the world around them. Furthermore, this understanding gives metaphor the ability to affect not only our thoughts, but also the beliefs and morals inherent within them. For example, if we believe that "life is a journey" we begin to hold certain beliefs about what life is and can be. This "metaphor of thought" (Gibbs, 2014) is considered to be a conceptual metaphor.

In CMT, metaphors consist of two elements: the concept that is being described and the concept that describes it. The more subjective and difficult to comprehend concept is called the target, while the concept used to describe it is considered the source. In comparison to target concepts, source concepts are believed to be more concrete and easier to comprehend, and are associated with early life experiences such as physical perceptions (Gibbs, Costa Lima, & Francozo, 2004). For example, the concept of love may be made more accessible when it is expressed as the physical perception of warmth. Overall, in a conceptual metaphor, the source acts as a frame from which individuals can derive meaning and understanding that can be applied to the target.

When we outline the ways in which the target and source interact with one another to

give meaning, we consider this a conceptual mapping. For example, revisit the metaphorical phrase, “life is a journey.” Journey would be considered the source conceptual domain and life would be considered the target conceptual domain. Underlying the concept of journey are elements, such as “traveler,” “destinations,” and “paths.” These elements of a journey are then mapped onto the concept of life; having us view life as a series of many choices (paths) that we must progress (travel) through. In turn, the larger metaphor of “life is a journey” induces the usage of several additional metaphors such as “when I took the next step in my life.”

Metaphors vs. Similes

Metaphors and similes are often confused; yet their differences are important to note. The two phrases “Ideas are like diamonds” and “Ideas are diamonds” seem quite similar. Literature suggests that they may be more different than they appear, however (Glucksberg, 2008). The phrase “ideas are like diamonds” is a simile. Such a statement can be taken literarily because it does not assert that ideas are diamonds, but compares qualities of ideas to similar specific qualities of diamonds. For example, both ideas and diamonds may be understood to be valuable. When we take the metaphorical phrase “Ideas are diamonds,” though, we must transcend the literal. Furthermore, we do not limit our understanding of ideas by what is similar between ideas and diamonds, but rather, understand ideas through our overall concept of “diamonds.” For example, ideas may not only be understood as valuable but also as glittery. Ideas are not literarily glittery; however once understood as a metaphor, they are allowed this attribute because the understanding of ideas extends into a nonliteral concept of diamonds.

Functions of Metaphors

Metaphors offer a unique combination of functions that foster voice in language including that they: (a) make sense of the abstract, (b) synthesize experiences, and (c)

incorporate the body into understanding. Current therapeutic techniques using metaphor to increase recognition of emotions and foster the therapeutic alliance, for example, speak to the functionality of metaphor as well. The following sections explore these functions of metaphor in more detail

Making Sense of the Abstract

Metaphors are commonly used to describe experiences that are abstract to others and to the self (Lakoff & Johnson, 2003). Time and love are concepts that cannot be easily defined, but we come to understand them through metaphorical mappings—time is slow (concept of pace), love is warm (concept of temperature). By allowing individuals to articulate indefinable concepts through more concrete subject matter, metaphors assist in the process of understanding experience (Fox, 1989; Lakoff, 1993; Wickman, Daniels, White, & Fesmire, 1999).

Synthesizing Experiences

Metaphors can join previous memories with new experiences by connecting two concepts or objects to produce new meaning (Fox, 1989). Such a process allows individuals to construct a language that reflects their past experiences, beliefs, and perceptions of the world. In fact, metaphors have been found to activate areas of the right hemisphere that are not activated by literal language (Couslon, 2008) and link neural circuits not typically connected (Rapp, Leube, Erb, Grodd, & Kircher, 2004). This suggests that metaphorical understanding incorporates a larger span of neural connections than literal language, thereby suggesting that a variety of experience is involved in processing metaphors. In this way, metaphors do not simply structure our language, but allow individuals a way to understand and articulate experience in a manner that is inherently special to them. For example, a man who has worked as a baker can use his experience of baking to understand and articulate his unrequited love by stating that “his love is

icing being squeezed from the tube."

Incorporating the Body

Metaphors appear to allow individuals to understand concepts in terms of physical experience (Gibbs et al., 2004). Predicate metaphors such as "I can *see* your point" are often referred to in research that studies the connection between metaphors and the body. Such literature suggests that individuals instinctively understand metaphors through the simulation of motion, either imaginably or physically (Gibbs & Matlock, 2008). Thus, embodied in metaphors, such as "I grasped the concept," is a person's kinetic understanding of "grasping." Indeed, individuals have been found to better understand metaphors while engaging in a corresponding action (e.g., chewing while reading "to chew on the idea"; Gibbs & Matlock, 2008) and can interpret metaphors differently depending upon their physical experience (e.g., understanding the distance of time by way of their placement in a line; Lee & Schwartz, 2014).

Yu (2008) suggests that bodily experience is intricately linked to metaphor because it allows for a concrete, universal human experience to be used to understand more subjective concepts. Thus, metaphors allow us to both communicate in a language that arises from that which is deeply linked to personal bodily sensations and, at the same time, can be understood by others by evoking similar bodily reactions.

While metaphors are rooted within a bodily experience, Yu proposes that they continue to be constructed within a specific cultural environment. This understanding of metaphor is built upon Lakoff and Johnson's (2003) description of primary and complex metaphors. In this understanding, "many primary metaphors are universal because everybody has the same kinds of bodies and brains and lives in basically the same kind of environment" (Lakoff & Johnson, 2003, p. 257,). Complex metaphors, comprised of primary metaphors, are also informed by culture,

however.

Overall, it appears that metaphors are intricately linked to bodily experience, whether that is more directly, through primary metaphors, or is underlying a more multifaceted and culturally influenced complex metaphor. In either case, their connection to the body as a way to both understand personal experience and the experience of others in a way that supersedes semantics makes it a unique element of language.

Uses in therapy

Metaphor can be used in the therapeutic environment as both a means of communication and as a tool for change (Lyddon, Clay, & Sparks, 2001). Ways in which therapists have used metaphors include: to foster the therapeutic relationship, to help clients recognize and verbalize emotions, to aid in the process of uncovering beliefs, to provide clients with indirect means of discussing their challenges, and to introduce new possibilities and interpretations into the life story (Fox, 1989; Lyddon et al., 2001; Wickman et al., 1999).

Metaphors can be created and introduced by therapists (Schoo, 2009), but may be especially profound when client-generated (Wickman et al., 1999). By being attentive to and working with metaphors produced by the client, "counselors can communicate more empathically and respectfully while helping clients explore the logical conclusions of an issue more efficiently and elegantly" (Wickman et al., 1999, p. 393).

Narrative technique specifically uses metaphors as interventions. Treatments include locating metaphors within narratives and utilizing metaphors as tools with which clients can externalize problems (Legowski & Brownlee, 2001). Metaphors may facilitate other aspects of the reconstruction process in narrative therapy as well. Specifically, metaphors provide clients' with a sense of personal, authorial voice by (a) offering clients a language that is congruent with

their experience, and (b) "enhanc[ing] the client's perception of being heard" (Wickman et al., 1999, p. 393).

Metaphor and Surgical Patients

Narratives can provide post-surgery patients with an ability to make sense of their medical experience, regain a sense of control, make changes to self-identity, build a sense of connection to the community, and engage in decision-making (Sharf, 2005). If, however, post-surgery patients' narratives are dominated by medical vernacular (Harter et al., 2005), their capacities to take part actively in the reconstruction process and receive its benefits are already limited by the language they use. Several unique qualities of metaphors may aid patients in discovering a more personalized voice with which to narrate their surgery experience.

Making Sense of the Abstract

In juxtaposition to the empirical medical language, metaphor is subjective in nature (Lakoff & Johnson, 1980). Metaphor can function as an alternative voice for patients by allowing them to verbalize their experiences of surgical transformation through "…a route to profound understanding of experiences which defy descriptions in literal or direct terms" (Fox, 1989, p. 233). With this ability, clients can begin to create a way of articulating, and thus perceiving, experiences that may have otherwise been ignored because they defied the medical language (e.g., the sense that organs "miss" other organs that have been removed or the feeling that one has "changed" even after they continue to function the same as before illness and surgery). In this way, metaphor allows for patients to understand elusive aspects of illness in a way that can better parallel their experience (Boylstein, Rittman, & Hinojosa, 2007).

Synthesizing Experiences

The property of metaphors to draw from past experiences to create understanding of

current experience enables clients to express themselves through personally generated metaphors that incorporate multiple aspects or voices of themselves, thereby transforming experience rather than simply translating it (Fox, 1989). Such meaningful expression can provide clients with a sense that they are authentically expressing themselves. For example, our baker may describe himself post-surgery in a metaphor that combines his own history as a baker with his current surgery experience by stating that he is "the cupcake that nobody knows is deformed because it is covered in frosting." Metaphorical expression like this suggests that this client is not only expressing his experience, but is doing so with a voice that is more incorporative of his life narrative and less dominated by a medical voice.

Incorporating the Body

The body as essential within the surgical experience cannot be denied. At the same time, patients often find themselves speaking of their body rather than through it. As Frank (1995, p. 2) eloquently states:

> The body is certainly not mute—it speaks eloquently in pains and symptoms—but it is inarticulate. We must speak for the body, and such speech is quickly frustrated: speech presents itself as being about the body rather than of it. The body is often alienated, literally made strange, as it is told in stories that instigated a need to make it familiar.

For postsurgical patients to incorporate their body into their being may be the first step into regaining a sense of a whole self. Metaphors give patients a way to understand their experience by incorporating their body, but simply speaking about it. In doing so it does not further a differentiation between body and experience, but empowers individuals to feel connected to their body and their healing process. This connection can foster a personal sense of

control regarding the healing experience—ultimately giving individuals a voice to help them move forward from "patient" to "person."

Significance of the Study and Potential Stakeholders

Increasing postsurgical patients' voices through metaphor does not only benefit the patients themselves. Benefits may also extend to medical providers, the larger medical system, insurance companies, and patients' family and friends.

Metaphorical explanations of surgical procedures may aid providers in finding an easily accessible language to articulate the surgery experience. Better communication between providers and patients may increase patients' ability to articulate symptoms or needs to providers, which, in turn, can aid providers in making more informed decisions about patient care. Increased communication may also strengthen and support the overall patient-provider relationship. Additionally, physician-patient communication, as well as surgeon-patient communication, may lead to fewer malpractice claims (Levinson, Hudak, & Tricco, 2013; Levinson, Roter, Mullooly, Dull, & Frankel, 1997).

Reducing distress and bettering provider—patient relationships are likely to reduce stress in the overall medical system. Patients who feel more informed and are part of their healing process may be less likely to become easily aggravated when communicating with employees and providers. In addition, aiding patients in creating their own sense of voice can increase patient engagement in the healing process or patient agency (Moreira, 2004). Patients that feel a sense of personal control and agency in their healing process may schedule fewer follow-up appointments and need less long-term patient care. A reduction in frequency of patient services post-surgery can thereby lead to a more efficient system of care.

Patients' possible decrease in their use of the health care system and increase in

communication and satisfaction with providers could lead to financial savings of resources allocated to patients who have a hysterectomy. Additionally, potential decreases in malpractice claims would reduce time and money spent on legal services. In this way, insurance companies may benefit from patients' increase in voice during the medical process.

Family members and friends of hysterectomy patients may also notice a benefit from the patients' increased sense of voice. As patients find they are able to articulate their experience in a way that is both true to themselves and can be understood by non-professionals in their lives, their personal relationships may become more satisfying. In addition, increases in patient agency may help patients to move away from relying as heavily on their friends and family to be caretakers in their lives, thereby reducing caretaker stress.

Statement of Problem

Individuals must begin to differentiate and regain personal voice and control in the healing process following a surgery. Metaphors allow patients to describe their medical experiences in a language that is subjective and personally meaningful. In doing so, metaphors can increase patients' voice within self-narratives and thereby increase patients' sense of personal control in the healing process. In this manner, increasing voice in post-surgery narratives may lead to healthier psychological adjustment following surgery. Consequently, it is important that we research how metaphors can promote personal voice in post-surgery narratives.

Research Questions

The proposed study sought to examine the effects of the use of metaphor by patients for their understanding of their surgical and postsurgical experiences. In particular, the study examined how metaphors relate with personal voice, beliefs regarding locus of control, and

anxiety in women who have undergone a hysterectomy. For the purpose of the study, an online experimental design randomly assigned participants to a metaphorical or control condition. Participants included women of 18 years old or older who had previously undergone a hysterectomy.

Research questions for the study were:

1. Do self-reported measures of personal voice, beliefs regarding locus of control, and anxiety differ between participants who have read a medical versus metaphorical description of the surgical experience?

2. Are differences between medical and metaphorical conditions significant when baseline anxiety, age, and type of hysterectomy are controlled for?

Definition of Terms

For the purpose of this study, the following terms are defined as follows:

Metaphor: Lakoff and Johnson (1980) state that, "the essence of metaphor is understanding and experiencing one kind of thing in terms of another" (p. 5).

Conceptual Metaphor: Metaphors within conceptual metaphor theory are understood to be more than linguistic structures, but rather parts of larger conceptual systems (Lakoff & Johnson, 2003). Therefore, when patients state "surgery is a battle," they are not simply using words to describe that surgery is a difficult process; patients' conceptions of surgery and how it will be incorporated into their narratives are infused with the understanding that a "war has been waged." Overall, when patients generate metaphors they are producing meaningful expressions reflective of their personal understandings of the world—a voice.

Target: The conceptual domain within a metaphor that is being described (Gibbs, 2014).

Source: The conceptual domain within a metaphor that helps to describe the target (Gibbs,2014).

Conceptual Mapping: The systematic outlining of the source and target within a metaphor (Gibbs, 2014)

Nominal Metaphor: A metaphor consisting of a noun used to describe another noun. For example, "*he* is a *shark*" (Chen et al., 2008).

Predicate Metaphor: A metaphor in which a verb is used figuratively. For example, "I will have to *chew* on that idea" (Chen et al., 2008)

Primary Metaphor: Metaphors that arise from basic experiences, including bodily perceptions. Many primary metaphors are universal across cultures because of the similarity of bodily and environment experience (Lakoff & Johnson, 2003). For example, "knowing is seeing."

Complex Metaphor: Culturally informed metaphors that consist of several primary metaphors (Lakoff & Johnson, 2003).

Conventional Metaphor: Commonly used metaphors that are often not distinguished as metaphors because of their frequency of use (Lakoff & Johnson, 2003).

Novel Metaphor: Metaphors not frequently used in common language (Lakoff & Johnson, 2003). These metaphors seem to be processed with more intention and more slowly than conventional metaphors (Cameron, 2008).

Voice: Voice is defined as "the capacity to speak on one's own behalf, in terms that are not given by others" (Monk et al., 1997, p. 306).

Self: " ...Selves we construct are the outcome of this [language and narrative] process of meaning construction..." (Bruner, 1990, p. 138).

Locus of Control (LOC): A multidimensional construct comprised of three subconstructs regarding beliefs about control: (a) internal locus of control (i.e., one has personal control), (b) powerful others control (i.e., others have control), and control by chance (i.e., things are controlled by chance; Wallston, Wallston, & DeVellis, 1978).

Agency: Refers to an individual's sense of influence in their own life (Bandura, 2001). Analysis of language can be used to measure personal agency (Ahearn, 2001).

Post-Surgery: This paper uses the term surgery to refer to an operation involving alteration of the body to remedy physical ailment. Post-surgery refers to the immediate and long-term experiences after having had surgery.

Hysterectomy: A surgical procedure in which the uterus, and possibly surrounding structures, are removed.

Illness Narrative: The story an individual creates to describe and understand the experience of illness. Often these stories are related to the medical experience in which the individual is a patient.

Narrative Medicine: A rising medical orientation in which physicians are trained to be aware of and to take into consideration, their patients' illness narratives (Charon, 2006). Narrative medicine should not be confused with the theoretical orientation of narrative psychology.

Summary

The experience of illness overwhelms our lives while often remaining intangible and indefinable. When an individual goes to a physician they are seeking a way to understand that which escapes them. This may be particularly true for surgical patients, who must honor the words of the surgeon when understanding the deep internal mechanisms of their body and the

process by which they have been transformed. Following a surgery, however, patients must begin to reclaim their sense of personal voice that may have been lost within the medical language they adopted while in the patient role. Without a sense of personal voice within their own surgical narrative, patients may continue to seek agency from the medical community rather than feel as if they have their own personal control of their healing processes. Metaphors, as unique linguistic elements that guide thought and influence our understandings, may provide patients with a personal language that can articulate and parallel their surgery experience. By helping patients to understand their experience using metaphors to conceptualize their experience, it is hypothesized that we can increase patients' sense of voice and internal locus of control and decrease anxiety. Such a postsurgical voice and sense of control, as well as decrease in anxiety, may have profound effect on the patients.

Chapter 2: Method

The study examined the relationships of patients' understanding the postsurgical experience through a metaphorical voice with their responses on measures of personal voice, locus of control, and anxiety. The following section summarizes the perspective with which this research was undertaken, as well as the theoretical base of narrative therapy. In addition, the proposed participants, effect size, measures, procedures, research hypothesis, and data analyses for the study are presented.

Theoretical Base

The present study was guided by the following core assumptions. These assumptions were guided by conceptual metaphor theory (Lakoff & Johnson, 2003) and narrative theory (Bruner, 1990):

1. The language of our narratives informs our conceptualization of ourselves and our world.
2. Metaphors are unique elements of language that allow for individuals to articulate *ambiguous* concepts and experiences in a way that is constructed from both individual and cultural experiences.
3. Within a narrative, conceptual metaphors aid in the process of understanding ourselves and our worlds.
4. The creation of novel, conceptual metaphors increases personalized language, and hence authorial voice.
5. Increases in authorial voice naturally lead to increases in the sense of a personal or internal locus of control.
6. Increased sense in an internal locus of control has psychological and physiological benefits.

Essential within the above assumptions is a theoretical base in narrative theory. Narrative approach is grounded in post-modern social constructionist theory and proposes that meaning is created through storytelling, a process in which language is crucial (Bruner, 1990; Kamya, 2006). Narratives are considered unique to each individual (Polkinhorne, 2004), while also socially constructed because: (a) the language in which a story is told is itself manufactured and given meaning through social processes (Bruner, 2004), and (b) narratives are "guided by unspoken implicit cultural models of what self-hood should be, might be—and, of course, shouldn't be" (Bruner, 2004, p. 4). Ultimately, "self-making" is viewed as the process of both forming and sharing narratives (Bruner, 2002).

Within narrative theory, voice is considered to be "the way in which a story is told…[and] represents a weaving together of multiple voices" (McLeod, 2004, p. 22). Personal authorial voice occurs when individuals are active tellers of their story. This form of voice allows individuals to feel as if they have agency in their lives (Ahearn, 2001; Drewery & Winslade, 1997).

Narrative strategies use metaphors as interventions. Treatments include locating metaphors within narratives and utilizing metaphors as tools with which clients can externalize problems (Legowski & Brownlee, 2001). Metaphors may be able to facilitate other aspects of the reconstruction process in narrative therapy as well. Specifically, the ability for metaphors to provide clients with a sense of personal, authorial voice can be fostered through metaphor as it: (a) offers clients a language that is congruent with their experience, and (b) "enhance[s] the client's perception of being heard" (Wickman et al., 1999, p. 393).

Narrative theory and postsurgical narratives. The appeal for patients to chronicle their illness narratives is evident in the literature (Frank, 2005). The medical field has begun to

recognize the importance of narrative within the healing process, which has given rise to the concept of narrative medicine: the integration of patient narratives into the training and practice of healthcare professionals (Charon, 2006). Narrative medicine acknowledges the importance of giving patients a voice in their medical experience, and proposes that doing so increases empathy and improves treatment for patients (Charon, 2006; Greenhalgh & Hurwitz, 1998). Research supports this claim and suggests that examining authorial voice in patients' narrative accounts of surgery and recovery assists healthcare professionals in enhancing patients' recovery process (Lapum et al., 2010).

The use of narrative theory is conducive to the investigation of metaphor and voice within personal stories. Since metaphors are often imbedded in and imply stories themselves (Ritchie, 2010), it is reasonable to utilize narratives to locate and expand upon metaphors. Furthermore, the abundance and accessibility of illness narratives make them a practical way to examine the patient experience. Thus, exploring authorial voice through narrative is a practical basis for research.

Participants

Participants were women who underwent a hysterectomy. In order to qualify for the study, individuals needed to be 18 years of age or older. For the purpose of the study, participation was not restricted by age at hysterectomy, year that the surgery was performed, or type of hysterectomy. A total of 61 participants chose to begin the survey; among these, 46 participants fully completed the survey. Depending upon number of completed measures within the total survey, between 44 and 50 participants were included in the analyses.

The majority of participants identified as Caucasian females from the Northeast region of United States (M_{age} = 50.4 years, age range 21-78 years). The average age for a hysterectomy

was reported as approximately 41 and the average year participants had a hysterectomy was 2005. Participants' mean rating of the success of their surgery was 6.5 on a scale from 1 to 7, with 1 being unsuccessful and 7 being successful. The majority of participants endorsed having either abdominal or vaginal hysterectomies, with some who endorsed "other" also describing one of these surgical procedures. Participants could endorse multiple reasons for surgery, including abnormal bleeding, pain, fibroid tumors, endometriosis, prolapse of uterus, and stress incontinence. Other reasons for surgery included removal due to cancer and pre-cancer, and "prior to transitioning." No participants reported "not sure" of the reason for surgery. Tables 1, 2, and 3 provide demographic information for all participants.

Table 1

Participant Demographics Related to Hysterectomy

	n	**M**	**SD**	**Range**
Age	56	50.4	13.0	21-78
Year of Hysterectomy	53	2005	12.1	1973-2015
Age of Hysterectomy	53	40.7	10.8	3-65
Success of Surgery	51	6.5	1.1	2-7

Note. Success of surgery rated by participants on a scale from 1-7, with 7 indicating highest self-reported success.

Table 2

Participant Sociocultural Demographics

	n	**%**
Gender	56	100
Female	54	96.4
Male	0	0.0
Trans, Transgender	2	3.6
State of Residence	56	100
Alabama	2	3.6
Arizona	1	1.8
California	3	5.4
Colorado	1	1.8
Connecticut	2	3.6
Florida	5	8.9
Maine	1	1.8
Maryland	1	1.8
Massachusetts	8	14.3
Minnesota	1	1.8
New Hampshire	14	25.0
New Jersey	1	1.8
New York	3	5.4
Ohio	1	1.8
Pennsylvania	1	1.8
South Carolina	1	1.8
Tennessee	2	3.6
Utah	2	3.6
Vermont	1	1.8
Virginia	2	3.6
Washington	3	5.4
Self-Assigned Racial or Ethnic Identity	56	100
African-American/Black	2	3.6
Asian/Pacific Islander	1	1.8
Caucasian (non-Hispanic)	52	92.9
Latina or Hispanic	0	0.0
Native American/ American Indian, Alaskan Native, or Aleut	0	0.0
Bi- or Multi-racial/ bi- or multi-ethnic	1	1.8

Table 3

Types of and Reasons for Participants' Hysterectomies

	n	**%**
Type of Hysterectomy	53	100
Abdominal	28	52.8
Vaginal	13	24.5
Not Sure/"I don't know"	1	1.9
Other (please specify)	11	20.8
Change during surgery to abdominal hysterectomy	2	3.8
Complete Abdominal	1	1.9
Laparoscopic	3	5.7
Multiple or w/Assist	3	5.7
Robotic	1	1.9
"Old School c section style"	1	1.9
Surrounding Structures Removed	53	100
Yes	41	77.4
No	8	15.1
Not sure/ "I don't know"	4	7.5
Ovaries Removed	53	100
No	19	35.8
One	12	22.6
Both	21	39.6
Not sure/ "I don't know"	0	0.0
Other	1	1.9
Portion "spared"	1	1.9
Reasons for Surgery	53	100
Abnormal bleeding	23	43.4
Pain	25	47.2
Fibroid Tumors	21	39.6
Endometriosis	19	35.8
Prolapse of uterus	5	9.4
Stress incontinence	4	7.5
Not sure/ "I don't know"	0	0.0
Other (please describe)	20	37.7
Cancerous	3	5.6
Pre-cancerous	8	15.1
Carcinoma lesions	1	1.9
Prior to transitioning	1	1.9
Rectocele Repair	1	1.9
Removal of Essure coils	1	1.9
Cyst hemorrhage	1	1.9

Effect Size

The study used an experimental design to establish the significance of metaphors in surgical narratives. Onwuegbuzie, Jiao, and Bostick (2004) determined that experimental designs require a minimum of 21 participants per condition in order to detect a medium effect size. A sample of N=42 was needed to result in an estimated power of .80 at $p < .05$.

Experimental Conditions

Narratives. The study required two narratives for participants to read: (a) one standard or medical description of the hysterectomy experience and (b) one metaphorical description of the hysterectomy experience. The medical description was considered the control narrative, as it was proposed to be a standard understanding of hysterectomy procedures. To establish face validity, the medical description was approved by an OB/GYN at a New England hospital and the metaphorical description was approved by psychologists at Antioch University New England, as well as a licensed mental health counselor (LMHC) in the New England area who currently provides therapy to women who are seeking to put their experiences into metaphorical language.

Medical narrative. The medical narrative of the hysterectomy was generated from information presented in a patient education hysterectomy brochure written at a sixth- to eighth-grade reading level (The American College of Obstetricians and Gynecologists, 2010) and given to patients by providers at a local, Northeastern hospital. In addition, patient information from the website "UpToDate" (http://www.uptodate.com) was used to generate the medical narrative. This website is an evidence-based clinical decision support resource for physicians, which additionally provides medical information to caregivers and patients to help in their medical care decisions. The medical narrative presents a description of the uterus and surrounding structures, details the reasons for a hysterectomy, briefly explores the types of and

ways to perform hysterectomies, and reviews the physiological and psychological effects following a hysterectomy. An excerpt from the medical description is:

> "For some women, they may have feelings of sadness related to the loss of their uterus. For others, it brings a sense of relief from pain or anxiety about possible tumors to come. For me, and many other women, I have felt both."

For the complete medical description, see Appendix E.

Metaphorical narrative. The metaphorical description of the hysterectomy was generated from discussion with a surgeon at a local, Northeastern hospital as well as from women whom I know. The metaphorical narrative uses an image of a vessel or vase to represent the uterus. The sentence structure and information presented in the metaphorical description parallel the medical narrative in its description of the uterus and surrounding structures, detailing the reasons for a hysterectomy, exploring the types of and ways to perform hysterectomies, and reviewing the physiological and psychological effects following a hysterectomy. An excerpt of this narrative is:

> "For some women, there is a loss for their vessel after the surgery. For others, it brings a sense of relief from pain or anxiety about possible cracks to come. For me, and many other women, I felt both relief and sad emotions."

For the complete metaphorical description, see Appendix E.

Measures

Demographic items. Initially, participants were asked to answer a total of 11 demographic questions. Questions pertained to a participant's age, sex, state of residence, languages spoken, self-identified racial or ethnic identity, time and age of hysterectomy, type of hysterectomy, and reason for hysterectomy.

Two corrections were made to demographic questions during the data collection period;

one being to correct the grammar of the question "Do you easily read and understand English?," and the other to correct the option to identify as "African-American/Black" as opposed to simply "African-American." No participants chose to answer "other," thus the data do not appear to have been influenced by these changes.

Patient voice questions. Participants responded to an author-created questionnaire consisting of 7 questions pertaining to patient voice. Individuals rated items on a 4-point scale ranging from "Not at All" to "Very Much So." Lower scores indicated lower sense of personal voice. Questions included: "I feel heard"; "I am understood"; "I can better understand my own experience"; "My hysterectomy feels meaningful"; "I can incorporate my hysterectomy into my life"; "I feel like I can describe my hysterectomy experience to other people in my life"; and "I feel that my perspective is valued." Appendix F shows the Voice measure.

Assessment of the Patient Voice questions. Patient voice questions were assessed for content validity by professional psychologists in a small pilot exploration prior to the study. In the present study, the scale was found to have a high level of internal consistency, as determined by a Cronbach's alpha of 0.91.

Multidimensional Health Locus of Control Scales (MHLOC; Wallston et al., 1978). The MHLOC Scales were designed to assess individuals' beliefs about what influences health. Beliefs regarding influence are broken into three categories: (a) internal beliefs or internal locus of control (e.g., health is determined by one's own actions); (b) external beliefs or powerful others locus of control (e.g., health is determined by the actions of others, such as doctors); and (c) chance or fate beliefs (e.g., health is determined by chance).

The MHLOC Scales were initially developed from the Health Locus of Control (HLC) Scale (Wallston, Wallston, Kaplan, & Maides, 1976). This scale was established as a version of

the Internal-External Scale-E (I-E Scale; Rotter, 1966). These initial scales measured internality and externality as constructs on a unidimensional axis pole. In response to research which suggested that externality and internality were uncorrelated (i.e., not inversely correlated), the MHLOC scales were developed to measure locus of control as multidimensional (Wallston, 2004).

A total of 18 items, the MHLOC Scales consist of three subscales with six items each. These subscales are modeled after Levenson's internality, other people, and chance scales (I,P,C Scales; Levenson, 1973), which separates Rotter's construct of external control into control by "powerful others" and control by "chance." The MHLOC subscales consist of: Internality of Health Locus of Control (IHLC; e.g., "When I get sick I am to blame"), Powerful Other Health Locus of Control (PHLC; "Health professionals keep me healthy"), and Chance Health Locus of Control (CHLC; e.g., "Most things that affect my health happen to me by accident"). Items are rated on a 6-point Likert scale ranging from "strongly agree" to "strongly disagree."

The MHLOC Scales consist of two equivalent forms (A and B) as well as a Form C. The scales have been normed on chronic patients, college students, healthy adults, and persons involved in preventative health behaviors. IHLC, PHLC, and CHLC subscales in Forms A and B have been found to be significantly and positively correlated with Levenson's Internal (.57), Powerful Others (.28), and Chance (.80) scales (Wallston, Wallston, & DeVellis, 1978). Such findings suggest concurrent validity. There is also support for the discriminant validity of these dimensions as being independent from one another. According to Wallston (2004), a correlation between IHLC and PHLC has generally not been found, and weak negative correlations (r = -.l0 to r = -.20) have been found between IHLC and CHLC. In addition, weak positive correlations (r = .20 to r = .30; albeit a correlation of r = .30 may be considered a moderate correlation) have

been found between the external dimensions of PHLC and CHLC (Wallston, 2005; Wallston, 2004). Internal consistency reliabilities, as measured by Cronbach's alpha for the subscales, were between α = .67 and α =.77 (Wallston et al., 1978), with test-rest reliabilities between α =.70 and α =.30 (Wallston, 2004).

Additionally, subscales were shown to not correlate with a measure of social desirability, suggesting discriminant validity (Wallston et al., 1978). A positive correlation (*r* = .40) between IHLC and a two-item measure of health status, supports the concept of internal locus of control as a health supporting belief. While a negative correlation (r = -.28) between CHLC and health status supports the concept of a chance locus of control as a health reducing belief. These findings suggest construct validity for the MHLOC subscales (Wallston et al., 1978).

Form C was developed for use as a generic assessment of locus of control beliefs. It has been designed to be easily altered for use with specific medical conditions by allowing for substitution of the word "condition" in the items to whatever condition being examined. It has been found to demonstrate validity across a variety of populations, including for women in the labor and delivery process (Stevens, Hamilton, & Wallston, 2011), in HIV/AIDS patients (Ubbiali et al. 2008); and Caucasian Americans, Filipino Americans, and Latino Americans (Malcarne, Fernandex, & Flore, 2005) among other populations.

Form C has a parallel structure as Forms A and B, but 4 subscales as opposed to 3. Factor analysis on an original 24-item Form C scale suggested a version with two, 6-item scales for "Internality" and "Chance," and two, three-item scales for "Doctors" and "Other People." The highest intercorrelation between these subscales were determined to have less than 10% shared variance (*r*=.31). Internal consistency reliabilities, as measured by Cronbach's alpha for the subscales, were between α = .70 and α = .87 (Wallston, Stein, & Smith, 1994). Test-rest

reliabilities for all subscales except "Other People," were found to be moderate to high in an arthritis sample, between α =.61 and α =.66, and a chronic pain sample, α =.58 and α =.80. In both samples, the Cronbach's alpha for subscale "Other People" was found to be generally low, α =.54 and α =.40, respectively.

In addition, concurrent validity has been demonstrated between Form C and Form B, as well as Levenson's I, P, C Scales. Form C's subscales had significant correlations with their counterparts on Form B's subscales; Internal scales (r = .59), Chance scales (r = .65), Powerful Others and Doctors (r = .55), and Powerful Others and Other People (r = .38). In addition, significant correlations between Form C's Internal, Chance, and Other People subscales and Levenson's I, P, and C Scales were found; Internal(ity) scales (r = .35), Other People scales (r = .41), and Chance scales (r = .50). A significant correlation with the Doctors subscale was not found, potentially because the Levenson's P scale does not refer to doctors. (Wallston et al., 1994).

Due to its subscale "Doctors," Form C was used to measure hysterectomy patients' general locus of control health beliefs in the present study. The term "condition," as used in Form C, suggests that the responder has a current, ongoing medical problem (Stevens et al., 2011). In an attempt to measure participants' beliefs regarding general health, the word "health" was substituted for "condition." For example, the item, "I deserve the credit when my condition improves and the blame when it gets worse" was altered to "I deserve the credit when my health improves and the blame when it gets worse," and the item, "If I am lucky, my condition will get better" was altered to "If I am lucky, my health will get better." Appendix F shows the Multidimensional Health Locus of Control Scales.

State-Trait Anxiety Inventory for Adults (STAI; Spielberger Gorsuch, Lushene, Vagg, & Jacobs, 1983). The STAI is a widely used measure of anxiety that distinguishes between state anxiety and trait anxiety. Context dependent levels of anxiety regarding how an individual feels "right now" are considered to be state anxiety. More general, long-term anxiety associated with personality is defined as trait anxiety.

The STAI Form Y is comprised of two 20-item scales; one assessing state anxiety and the other trait anxiety. Subjects rate items on a 4-point Likert scale. The state anxiety scale ranges from "Not at All" to "Very Much So." The trait anxiety scale ranges from "Almost Never" to "Almost Always." Lower scores indicate lower levels of anxiety. State anxiety items include such statements as: "I am tense" and "I feel content." Trait anxiety items include: "I feel satisfied with myself" and "I am a steady person." Items are written at a 6^{th} grade reading level and the overall inventory can be completed in approximately 10 minutes.

Spielberger et al. (1983) have found internal consistency coefficients for the STAI ranging from α =.86 to α =.95. In addition, test-retest reliability coefficients were found to range from α. = 65 to α =.75 over a 2-month interval. Meta-analysis suggests that the internal consistency reliability of the STAI is generally satisfactory for a variety of populations (Barnes, Harp, & Jung, 2002). Furthermore, the STAI also is reported to have good construct and concurrent validity (Spielberger, 1989).

The STAI has been found to correlate significantly with other measures of psychological states and psychopathology (Endler, Magnusson, Ekehammar, & Okada, 1976; Gotlib, 1984; Knight, Waal-Manning, & Spears, 1983). Regarding discriminant validity, Martuza and Kallstrom (1974) found that the STAI was able to differentiate between state anxiety and trait anxiety among graduate students in education under various levels of stress. Metzger (1976)

found similar results with another student population in high stress versus nonstressful situations. The State Anxiety subscale can be found in Appendix D.

Procedures

Permission to conduct this study was first obtained from the Antioch University New England's IRB, the human subjects committee. Overall, participants were invited to partake in a study about the hysterectomy experience through email, social media, medical providers, and flyers. In addition, permission to leave flyers at a Northeastern hospital was obtained from the Dartmouth Hitchcock-Keene/Cheshire Medical Center IRB review board. Recruitment statements and flyers (see Appendices A and B) included a brief description of the study, the benefits of participating, requirements for participation, and a link to the research website.

Participants were recruited over the course of 5 months. Women were recruited through two means: (a) online recruitment through email and social media outlets, and (b) flyers and physician referral at a hospital within the New England region. Interested individuals visited the research website at which time they were presented with an informed consent form (see Appendix C). Those individuals who chose to give implied consent by voluntarily pressing "yes," were directed to the study on the next page. Participants were allowed to stop responding whenever they wished to.

Participants first took a short survey consisting of demographic questions as well as the STAI state-anxiety scale (see Appendix D). Next, patients were randomly assigned to read a medical or metaphorical narrative regarding the hysterectomy experience (see Appendix E). Random assignment of participants was determined through a computer algorithm used by the online survey site PsychData. Following the narratives, participants were asked to answer the patient voice questions, MHLC Form C, and the STAI state-anxiety scale (see Appendix F). The

total study was expected to take 30-45 minutes. At the end of the study, participants chose to be entered into a raffle for one of two $50 Amazon.com gift cards.

Participant anonymity and confidentiality. Participants were not asked to provide names or other identifying information. The IP number of their computers was not recorded. Thus all data remained anonymous. Data downloaded to the researcher's personal computer was password protected.

Participants who wanted to be entered into the raffle were asked to send an email to a private email account established for the study. I had sole access to the study's email account. It was communicated to participants in the Informed Consent Form that their emails for the raffle prize would not be connected to the data.

Risks and benefits. Minimal adverse effect was expected from the study. Participants may have felt some discomfort when answering questions, particularly demographic questions regarding their surgery and a few items in the measures of voice, locus of control, and anxiety. Additionally, reading narratives of the surgery experience may have created uneasiness in participants. I intentionally adapted these narratives to document a neutral to positive surgery experience in order to reduce risk to participants. Participants were informed that they were not required to answer any questions they were not comfortable with and that they had the right to discontinue responding to the survey at any time.

As a benefit, participants may have experienced the survey as an opportunity to be able to express what their hysterectomy experience was like. In addition, participants may have felt as if they were helping women who may have a hysterectomy in the future. Reading narratives of the hysterectomy experience might have given participants a greater understanding of their own experience, leading to greater awareness and comfort with the surgery that they had. Last, the

chance to win a gift certificate was a benefit for participants.

Research Hypotheses

The following hypothesizes were derived from the research questions presented in Chapter 1:

Self-reported levels of voice will be higher for participants that read the metaphorical narrative. An increase in patient voice is expected to follow a description that resonates with the participants and aids in their understanding of the healing process. A metaphorical narrative is expected to provide a greater sense of connection with the hysterectomy experience.

Self-reported levels of Internal Locus of Control will be higher than Chance, Doctors, or Other People Locus of Control for participants that read the metaphorical narrative. An increase in internal locus of control is expected to follow a description that may provide a greater sense of personal voice.

Self-reported measures of state anxiety will be lower for participants that read the metaphorical narrative. If metaphors offer a greater sense of voice to an otherwise ambiguous process, a decrease in anxiety following the metaphorical narrative is expected.

Significant differences between conditions will continue to be significant when baseline state anxiety, age, and type of hysterectomy are controlled for. Differences between metaphorical and medical narrative conditions in measures of patient voice, locus of control, and state anxiety are expected to remain significant when baseline state anxiety, age, and type of hysterectomy are controlled for.

Data Analyses

Data analyses were conducted in three phases. First, a series of preliminary analyses

tested whether the data met basic assumptions for continued analysis. This examined the descriptive statistic of scores in study variables, missing data, outliers, internal consistency of dependent variables, and normality of the distribution of dependent variables. Second, a bivariate analysis was conducted to explore Pearson correlations between variables and aid in determining the subsequent appropriate statistical tests. Next, t-tests were performed to evaluate the dependent variables' mean differences between experimental groups. Last, covariate one-way analyses of variance (ANCOVAs) were performed to explore relationships between Voice and Pre-STAI, and Doctors MHLC and Post-STAI. Bonferonni adjustments were made to the probability levels of these tests of difference.

Chapter 3: Results

Initial anaylses included perusal of the study's demographic information, descriptive statistics, and frequency distributions. Missing data and outliers were identified and addressed. Next, bivariate correlations were run. Although appropriate for the study's design, a MANOVA was not run due to small sample size, inability for all data to meet assumptions for multivariate normality, and a failure to meet homogeneity of variance-covariance matrices. Depending upon number of completed measures within the total survey, between 44 and 50 participants were included in further analyses using t-tests and ANCOVAs.

Missing Data

Participants who did not complete any measures beyond the experimental condition were automatically removed from the analyses. Participants who completed at least one measure following the experimental condition but did not finish the survey were included in the analyses on an individual basis.

Data were also considered incomplete and excluded from initial analyses if participants left blank more than 65% of a single measure. If less than 65% of a measure was missing, these items were replaced with the mean of the group sample for the measure.

Outliers

Box plots and Normality Plots were used to reveal outliers. One was found to not follow the normal trend. In an effort to preserve sample size and not remove over 10% of participant data, all other outliers that did follow normal trends were included. No multivariate outliers were discovered using Mahalanobis distance. Table 4 presents the means and standard deviations of the measures used following mean replacement of missing data and removal of the outlier.

Table 4

Means and Standard Deviations of Study Variables

Variable[a]	M	SD	Skew[b]
Pre-STAI	1.78	0.50	0.84
Post-STAI	1.71	0.47	1.92
Voice	2.99	0.89	-0.34
Internal HLC	3.51	0.90	-0.08
Chance HLC	2.91	0.90	0.26
Doctors HLC	4.24	0.91	-0.23
Other People HLC	2.97	0.93	-0.25

a. $n = 44$
b. Std. error = 0.357
Note. STAI = State-Trait Anxiety Inventory (only State form used); HLC = Health Locus of Control

Cronbach's Alpha

The pre-STAI (20 items), post-STAI (20 items), and Voice (7 items) measure showed strong internal consistency reliability: $\alpha = .96$, $\alpha = .93$, and $\alpha = .91$, respectively. Moderate internal consistency reliability was found for Internal HLC (6 items, $\alpha=.79$) and Chance HLC (6 items, $\alpha=.74$). For the other two HLC subscales with fewer items, moderately low reliability was found: Doctors HLC (3 items, $\alpha = .65$) and Other People HLC (3 items, $\alpha=.62$).

Normality

No significant skewness or kurtosis was determined. Multivariate normality was analyzed using the Shapiro-Wilk Test of Normality. Measures of Internal HLC, Chance HLC, Doctors

HLC, and Other HLC were found to be within normal limits. However, pre-STAI, post-STAI, and Voice were found to have a significant skew value below .05. These measures were analyzed without transformation and results should be approached with caution.

Bivariate Analysis

Initial bivariate analysis determined that pre-STAI was positively correlated with post-STAI (r = .88, p < .001) and negatively correlated Voice (r = -.32, p <.05). In addition, post-STAI was found to be negatively correlated to Doctors HLC (r =- .33, p <.05). Furthermore, measures of Internal HLC, Others HLC, and Doctors MHLC were found to be significantly correlated to one another; Internal HLC and Others MHLC (r = .43, p < .005), Internal HLC and Doctors HLC (r = .32, p <.05), and Doctors HLC and Others HLC (r = .32, p < .05). Table 5 shows the correlations.

A significant negative correlation was found between Other People HLC and current age of participants (r= -.31, p < .05). All other continuous demographic data (e.g., current age, age at which one had a hysterectomy, and year of hysterectomy) were not found to correlate with variable measures.

Table 5

Bivariate Correlations Among Study Variables

Variable	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. Pre-STAI	--	.88**	-.32*	.09	-.04	-.19	-.15
2. Post-STAI		--	-.28	.00	.01	-.33*	-.15
3. Voice			--	.26	.00	.09	.19
4. Internal HLC				--	-.09	.32*	.43*
5. Chance HLC					--	-.01	.13
6. Doctors HLC						--	.32*
7. Other People HLC						--	

**. Correlation is significant at $p < 0.01$
*. Correlation is significant at $p < 0.05$
Note. STAI = State-Trait Anxiety Inventory (only State form used); HLC = Health Locus of Control

T-tests for Experimental Conditions Difference

Independent-samples t-tests were conducted to compare means between experimental conditions and variables. Variable variances were equal for the two groups. Bonferroni calculation adjusted alpha levels of p=.007 per test (α=.05, n=7) to correct for the likelihood of Type 1 error.

On average, participants in the medical description group self-reported higher levels of Voice (M=3.28, SE=.16) than those in the metaphorical description group (M=2.58, SE=.17); t(50)=3.03, p=.004. In addition, there was a trend toward significance findings that participants' scores of Doctors HLC were higher for the medical group (M=4.51, SE=.20) than the metaphorical group (M=4.04, SE=.17)t (48)= 1.77, p=.084.

ANCOVA Analyses

As correlational analysis indicated significant relationships between (a) pre-STAI and Voice and (b) post-STAI and Doctors HLC, analyses of variance were performed on measures of Voice and Doctors HLC with pre-STAI and post-STAI as covariates, respectively. Bonferroni calculation adjusted alpha levels of p=.025 per test (α=.05, n=2) to correct for the likelihood of Type 1 error.

When the covariate of pre-STAI was controlled for, the effects of group assignment on the self-report measure of Voice remained significant, $F(1,46)=7.56$, p=.008, $\eta_p^2 = .14$. When the covariate of post-STAI was controlled for, the effects on Doctors HLC continued trend towards significance, $F(1,41)=4.85$, p=.033, $\eta_p^2 = .11$, with Bonferroni correction. Tables 5 and 6 present ANCOVA results.

Table 6

Analysis of Co-Variance for Voice by Group

Source	***SS***	***df***	***MS***	***F***	***p***
Pre-STAI	1.91	1	1.91	3.06	.087
Group	4.73	1	4.73	7.56	.008
Error	28.78	46	.626		
Total	37.34	49			

Note: Group 1 (n = 25), Group 2 (n = 24); Bonferroni adjustment, $p < .025$

Table 7

Analysis of Co-Variance for Doctors Health Locus of Control (HLC) by Group

Source	***SS***	***df***	***MS***	***F***	***p***
Post-STAI	3.20	1	3.20	5.16	.028
Group	3.01	1	3.01	4.85	.033
Error	25.41	41	0.62		
Total	853.34	44			

Note: Group 1 (n = 25), Group 2 (n = 24); Bonferroni adjustment, $p < .025$

Summary

Initial bivariate analyses showed a positive correlation between pre-STAI and post-STAI, a negative correlation between pre-STAI and Voice, and a negative correlation between post-STAI and Doctors HLC. Internal HLC, Others HLC, and Doctors HLC were found to have significant positive correlations with one another.

Further analysis determined significant effects between group assignment and the self report measure of Voice and an effect trending toward significance between group assignment and the self-report measure of Doctors HLC. These findings continued to remain significant when pre-STAI and post-STAI were controlled for, respectively.

Chapter 4: Discussion

The results of this exploratory study did not confirm the study's hypotheses that metaphorical narratives of hysterectomies will increase individuals' self-report of Voice and Internal HLC, while decreasing scores on the STAI, Chance HLC, and Other People HLC. The trend toward higher self-reported Doctors HLC scores for those who were assigned to the medical language group perhaps suggest that a larger sample size might confirm the hypothesis that metaphorical descriptions would decrease Doctors HLC scores.

Voice and Language

Interestingly, the findings suggest that medical language used to describe the hysterectomy experience provided individuals a greater sense of Voice than metaphorical language. These results imply that individuals experience concrete, objective language to be helpful when understanding and relating to their hysterectomy experience. It is possible that the procedural aspects of surgery itself may foster a desire to be able to articulate the process in a technical manner. In addition, individuals may gain a sense of voice when using this language because it offers them a way to describe their experience that is societally constructed, and, thus, generalizable.

Such results suggest that doctors and other health care providers can aid women in their surgery experience through providing a medical language. Findings also suggest that if surgeons are given the time to fully describe and explain surgery to patients, they can help individuals to develop a sense of ability to feel heard and understood in their experience. It is also important to note that the medical narrative used in this study was written at an eighth grade reading level, and thus findings may be specific to a medical language that is more universally understood.

Doctors HLC and Language

The present study found a trend towards significance between Doctors HLC and group assignment. This finding suggests that individuals' beliefs that doctors are responsible for health are lower for those exposed to the metaphorical language. The implication is that exposure to a metaphorical description of the surgical experience could decrease individuals' belief that doctors are central aspects of their healing process. This finding also corresponds with the proposed relationship between metaphorical language and a decrease in individuals' view of themselves in mainly a patient role in which doctors are mainly responsible for their health.

Voice, Doctors HLC, and Language

It was determined that a further exploration of the relationship between Doctors HLC and group assignment be considered alongside the significant findings between Voice and group assignment. First, it is possible that a larger sample size, longer duration of exposure to metaphorical language, more personalized metaphorical descriptions, or a different design of exposure to metaphorical language may have strengthened effects seen between metaphorical language and Doctors HLC. Second, these results would have been significant if levels were not adjusted with the relatively conservative Bonferroni adjustment. Thus, it is of interest that we explore the implications of the relationships between Voice, Doctors HLC, and language found in the present study.

Such outcomes may indicate that as a sense of being heard and understood in surgical experience increases, so too may the sense of importance of doctors in the healing process. This relationship may outline the importance of doctors, and possibly other health professionals, in the healing process for women during their hysterectomies. Indeed, such findings would support the literature that doctors are an essential part of how women with hysterectomies come to

understand their surgical experience (Byles et al., 1997).

The increase in voice corresponding with medical language alongside higher levels of Doctors HLC, suggests that while medical language may help to strengthen individuals' sense of voice associated with their surgery, it may come at the cost of placing more responsibility for their health in their doctors. Such responsibility is not inherently good or bad, but may unintentionally result in individuals' taking on a patient role rather than moving towards a sense of holistically incorporating their surgical experience, as outlined in the literature review. Furthermore, lower levels of Doctors HLC and lower levels of Voice following metaphorical descriptions suggest that while metaphorical language may help to decrease individuals' placement of responsibility for their health in their doctors, it may come at the cost of not feeling as understood or heard. These findings may demonstrate that metaphorical language does indeed help to orient individuals toward new ways of understanding their role in the healing process; however, this new type of language may not be one in which individuals feel fully confident using, yet. Seeing as that this metaphorical language was likely more novel to participants than the medical language, it would seem appropriate that with more time or a different type of exposure to metaphorical language, participants may internalize and develop the metaphorical language more, which may lead to an increased sense of voice.

Limitations of the Study

There are several considerations to be taken into account alongside the results. First, there are several questions related to the ability to interpret the collected data. Both the variables of Doctors MHLC and Other People MHLC had low inter-item reliability. In addition, Pre-STAI, Post-STAI, and Voice did not meet the assumption of multivariate normality, and results should be approached with caution. In addition, the measure for Voice was constructed by me and,

although it showed high internal consistency, the measure itself should continue to be assessed for validity.

Furthermore, demographic variables may have influenced how individuals respond to metaphorical or medical language. The participants' ages, types of hysterectomies, and reasons for hysterectomies varied, yet there were insufficient subsamples to conduct analyses to test the effect of these variables. For example, participants who had a hysterectomy and identified as Trans/Transgender may have had a very distinct experience of their hysterectomy and thus may have been more likely to feel heard by one description than another. The sample size of n=2 for the trans/transgender population did not allow for analysis of this variable, among others. Self-identified race and ethnicity might have also influenced how experimental condition affected participants, but it should be noted that the majority of participants reported that they were Caucasian. Individuals who identify differently may be influenced by metaphorical or medical language differently, or may have a different inclination toward how they would like to describe their experience. In some Asian cultures, where women are modest or secretive of their sexuality, they may choose to be silent about their hysterectomy or avoid any talk about it other than following closely the medication regimen (personal communication Gargi Roysircar, April 23, 2016). On the other hand, Mehl-Madrona (2007) describes story as an essential aspect of the Native American healing process and advocates for the importance of narrative being incorporated into conventional medicine.

Moreover, the experimental design itself may have not provided an appropriate foundation for metaphorical language to be sufficiently developed and internalized by participants. Briefly reading either of the descriptive paragraphs may have not been presented to participants for a long enough time frame or with enough contexts to significantly shift

participants' understandings of their hysterectomy experience. Additionally, the nature of the online experimental condition did not allow for individualized metaphors to be presented to participants. As an essential part of the significance of metaphorical language being its ability to be individually constructed, it is possible that the inability for this design to provide an individualized metaphorical condition limited the influence of the metaphorical condition on participants.

Finally, the effects found may have been due to an additional variable related to the type of participant who completed the survey. Since there is an appreciable difference between the number of participants who began the survey (n=61) and the number that completed it or were included in final analysis (n=42), this attrition may be of particular note. For example, it is possible that participants' who completed the survey also had a similar personality or preference related to their medical experience that influenced how they responded to the experimental condition. Indeed, health psychology literature has found a difference between personality factors and health, such as optimism and faster recovery from surgery (Ronaldson et al., 2015).

Future Directions in Research

The current study was a preliminary and exploratory step toward understanding how language can impact individuals' surgical experiences. Future studies can continue to examine how different exposures to metaphorical language (written, auditory, pictorial, film, personalized essays, poetry, etc.) may influence individuals over time. How language may influence individuals' belief in doctors' control of their surgical experience must also be investigated. In addition, it is advised that future studies include a larger sample size, as well as over-sample specifics groups, such as individuals who had a certain type of hysterectomy. Furthermore, the pilot measure for Voice could be further developed for future narrative research related to

individuals' sense of personal or authorial voice in their lives.

Conclusion

The present study used an experimental online design to study the effect of metaphorical understanding of the postsurgical hysterectomy experience on levels of patient voice, locus of control, and anxiety. Demographic and anxiety scores were collected before participants were exposed to one of two experimental conditions: a medical narrative or a metaphorical narrative. After participants read one of these narratives, data were collected with measures on patient voice, an altered MHLC Form C, and the STAI Form Y-1. Scores were compared between the medical and metaphorical conditions.

Results countered the study's hypothesis that metaphorical conditions would increase levels of voice and internal HLC while decreasing levels of anxiety, and the other subdomains of MHLC. However, results presented the interesting finding that medical language used to describe surgical experiences made a significant impact on individuals' sense of being heard, understood, and ability to express their surgical experience. Medical language might have been preferred over metaphorical language when understanding the hysterectomy experience; however this technical language may also impact one's beliefs about doctors' control in the healing process. Although metaphorical language may offer individuals a way of understanding the healing process as less controlled by doctors, it does not seem to provide individuals with an equal sense of being heard and understood. This was an initial, exploratory study and several methodological limitations might have had an impact on the robustness of the findings. Future research should continue to explore the relationship between language, voice, and locus of control in the surgical experience.

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Appendix A

Recruitment Statement

Hello. My name is Katherine Russell. I am inviting women who have undergone a hysterectomy to participate in an online study as part of my dissertation research. My study explores language used to describe the hysterectomy experience. Participation will require that you read online one brief description of the hysterectomy experience and answer a series of questions. It is expected that this will take you between 30 and 45 minutes. Participants will be entered into a raffle to win one of two $50 gift cards to Amazon.com. To participate in this study and/or for more information please visit:

[Hyperlink here]

Thank you. Your consideration is greatly appreciated.

Appendix B

Recruitment Flyer

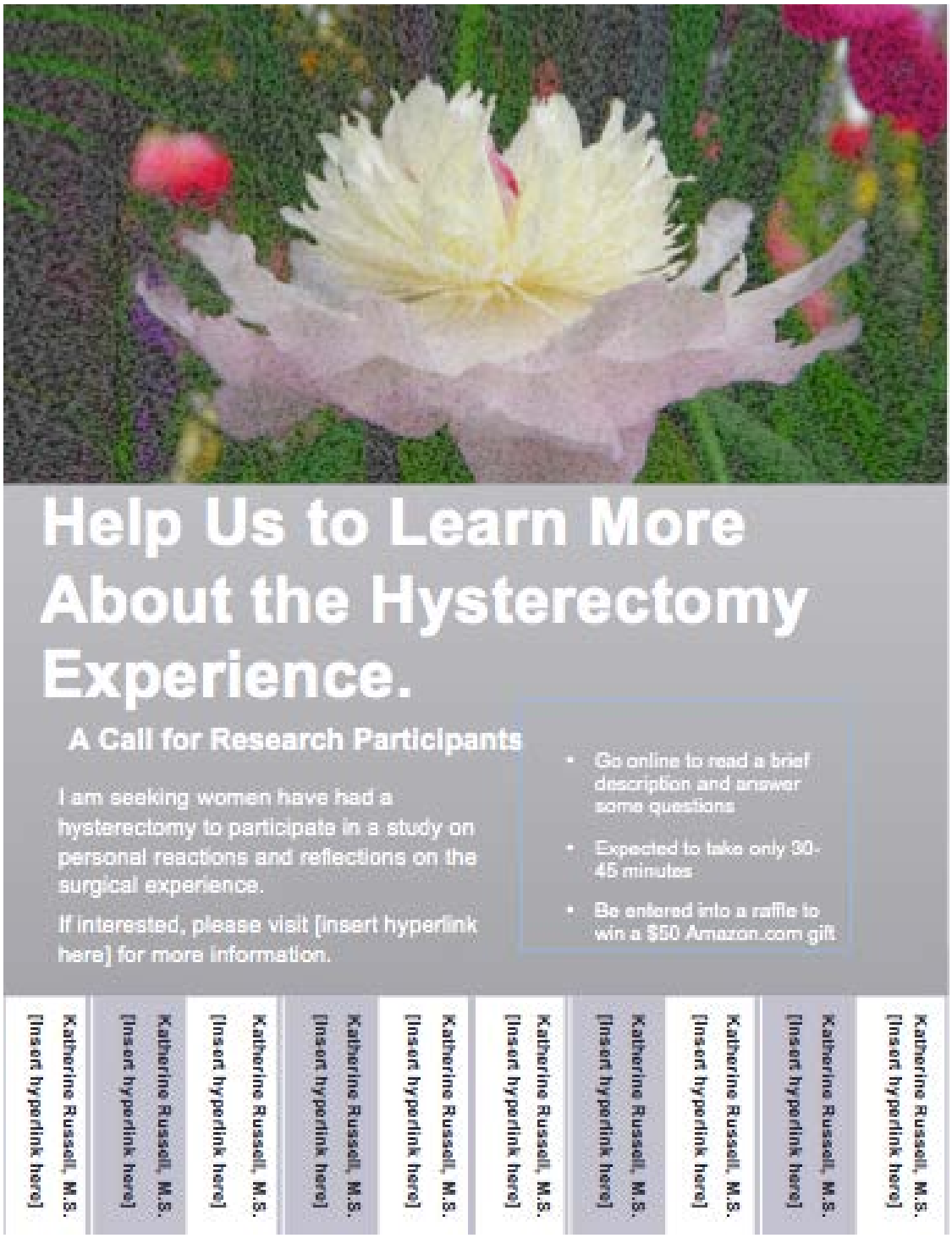

Photo credit: Katherine Russell, M.S. (2016)

Appendix C

Informed Consent

Antioch University New England
Department of Clinical Psychology
40 Avon St.
Keene, NH 03431
800-553-8920

Principal Researcher: Katherine Russell, M.S.
Research Title: How Women React to Descriptions of a Hysterectomy Experience After their own Hysterectomy Surgery

You are invited to participate in a research study that investigates language used in understanding a hysterectomy surgical experience. If you have had a hysterectomy, please participate in the study. If you have not had a hysterectomy, please do not participate in the study.

Your participation involves reading a description of a hysterectomy experience. After reading this description, you will be asked to answer questions regarding your feelings after reading the description.

You will spend about 30-45 minutes to complete the questionnaire. All data that are collected will be anonymous. You will not give your name. Your computer IP information will not be collected. On all data you will be referred to only by way of a number or code. The information you provide about yourself will be kept confidential by the investigator. Only average group results will be included in the investigator's dissertation and professional reports or presentation.

This study is conducted by Katherine Russell, M.S., a doctoral candidate in clinical psychology at Antioch University New England., Keene, New Hampshire.

What are the risks and benefits of the study?

The study will contribute to psychological knowledge about the postsurgical experience of women who have had a hysterectomy. In doing so, it is hoped that health care providers' understanding will increase on how to improve patients' postsurgical experiences.

The researcher has taken steps to minimize risks to participants. Even so, you may experience some distress reading a description of a hysterectomy experience and answering questions on your reactions. If you experience any significant emotional distress, please contact the researcher, Katherine Russell [insert email here].

Will I be paid to participate in this study?

Participants can choose to be entered into a raffle to win one of two $50 Amazon.com gift cards.

How will data be stored and used?

Under no circumstances will you be identified by name in the course of this study or in any publication thereof. Every effort will be made that all information provided will be treated as strictly confidential. All data will be numerically coded and securely stored. Anonymous and average group findings will be reported for professional purposes only, such as for the writing of the dissertation and for possible publication and presentations.

How will the results be used?

The study is to be submitted in partial fulfillment of requirements for the degree of Doctor of Psychology at Antioch University New England, Keene, New Hampshire. The results of this study will be reported in a dissertation. In addition, information may be used for educational purposes through professional presentation(s) and/or publication(s).

Participant Rights

- I understand that I have the right to ask questions about the purposes and procedures regarding this study before participating.
- My participation in this research is voluntary. I may refuse to participate or withdraw from participation at any time without any penalties.
- If at any time I have any questions regarding the research or my participation, I can contact the researcher, Katherine Russell, M.S. at [insert email here].
- If at any time I have questions about my rights as a research participant, or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researcher, I can contact the Antioch University New England Institutional Review Board, 40 Avon St., Keene, NH 03431, **800-553-8920.**

By checking the box below, you agree that you have read and understood the above information and willingly and freely consent to participation in this study.

☐ **I consent to participation in this study.**

Appendix D

Pre-Condition Survey

Demographic Items:

1. What is your age? ____

2. What is your gender?
___Female
___Male
___Trans, Transgender
___Other

3. What is your state of residence? ____

4. Do you easily read and understand English?
___Yes
___No (please elaborate)_____

5. With which racial or ethnic group(s) do you *most* identify?
___African-American/Black
___Asian/Pacific Islander
___Caucasian (non-Hispanic)
___Latina or Hispanic
___Native American/American Indian, Alaskan Native, or Aleut
___Bi- or Multi-racial/bi- or multi-ethnic
___Other

6. Have you had a hysterectomy? ____
___Yes
___No

7. What year did you have your hysterectomy? ____

8. At what age did you have a hysterectomy? ____

9.What type of hysterectomy did you have?
___Abdominal
___Vaginal
___Not Sure/"I don't know"
___Other (please specify)

10. Were any surrounding structures other than the cervix removed?
___Yes
___No
___Not sure/ "I don't know"

11. Were your ovaries removed?
___No
___One
___Both
___Not sure/ "I don't know"
___Other

12. What was the reason for surgery? (check all that apply):
___Abnormal bleeding
___Pain
___Fibroid Tumors
___Endometriosis
___Prolapse of uterus
___Stress incontinence
___Not sure/ "I don't know"
___Other (please describe) _____

13. Your surgery was?
Unsuccessful 1.....2.....3.....4.....5.....6.....7 Successful

FORM Y-1

A Form Y-1 reproduction license was obtained for the study. Due to licensing regulations the STAI cannot be reproduced in this paper, however. For information regarding the STAI please go to http://www.mindgarden.com/145-state-trait-anxiety-inventory-for-adults.

Appendix E

Descriptions/Narratives

Medical Description

I usually begin the story of my hysterectomy by describing what I had removed, my uterus. Located in the lower abdomen/pelvic region of a woman's body, the uterus carries a baby if a woman is pregnant. It is otherwise a muscular organ about the size and shape of a pear. The lower end of the uterus, the cervix, opens up to the vagina. Connected to either side of the upper part of the uterus are two fallopian tubes. The fallopian tubes are close to the ovaries which lie next to and slightly behind the uterus. They produce eggs and certain hormones for the female body.

You know how different organs sometimes have problems? That happened to me. I felt like my uterus was constantly hurting and I had very heavy periods. After talking to my doctor and my family, I decided that it might be best to take out my uterus.

My doctor told me that women get hysterectomies for different medical conditions. For example, some women have a small, benign tumor in their uterus. It isn't terminal, but you're not sure if it might get bigger—even if you take it out the tumors might return again. In those cases, the uterus and cervix might need to be removed. In other cases, the fallopian tubes and ovaries may need to be taken out as well.

For some women, they may have feelings of sadness related to the loss of their uterus. For others, it brings a sense of relief from pain or anxiety about possible tumors to come. For me, and many other women, I have felt both. I may not have my uterus, but I continue to be me.

Metaphorical Description

I usually begin the story of my hysterectomy by describing what I had removed, my uterus. I imagine the uterus as a type of sacred vessel. Some women I have talked to think of this vessel as a cornucopia. It can be filled with vegetables and represents life and bounty. Other women see the vessel as a pocket that is soft and flexible enough to hold many things if necessary. I like to think of my uterus as a vase. It has two flowers coming out of it, too. The stems of the flowers I see as the fallopian tubes and the buds of the flowers I view as the ovaries. Overall, this vase is strong, beautiful, and feminine.

You know how some vases might get a large crack that lets water through? Well that seemed to happen to my vase. I felt like my vase was constantly hurting from its crack and the loss of lots of fluid. After talking with my doctor and family, I decided that it might be best to take out my vase.

My doctor told me that women get hysterectomies for different reasons. For example, some women might have a small initial crack called cancer. It isn't letting any water through, but you're not sure when the crack might get bigger—even if you fix it the crack might end up continuing somewhere else. Sometimes the whole vase needs to be removed, sometimes not. Other times the flowers may also need to be removed.

For some women, there is a loss for their vessel after the surgery. For others, it brings a sense of relief from pain or anxiety about possible cracks to come. For me, and many other women, I felt both relief and sad emotions. I am beginning a new chapter in my life. I may not have my vessel with me, but I continue to have all that it represented still within me. I continue to be a strong, feminine vessel—myself.

Appendix F

Post-Condition Measures

Patient Voice Questions

Directions:
Keep in mind the description about surgery you have just read. Read each statement and then circle the appropriate number to the right of the statement to indicate how you felt after reading the description. There is no right or wrong answer. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

This measure was created by Katherine M. Russell.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel heard	1	2	3	4
2. I am understood	1	2	3	4
3. I can better understand my own experience	1	2	3	4
4. My hysterectomy feels meaningful	1	2	3	4
5. I can incorporate my hysterectomy into my life	1	2	3	4
6. I feel like I can describe my hysterectomy experience to other people in my life	1	2	3	4
7. I feel that my perspective is valued	1	2	3	4

Form C

The MHLC Scales are in the public domain. To access the MHLC scales and for information regarding the scales please go to http://www.vanderbilt.edu/nursing/kwallston/mhlcformc.htm.

STAI FORM Y-1

A STAI reproduction license was obtained for the study. Due to licensing regulations the STAI cannot be reproduced in this paper, however. For information regarding the STAI please go to http://www.mindgarden.com/145-state-trait-anxiety-inventory-for-adults.