

THESIS

MEANING OF WORK AMONG CANCER SURVIVORS:
UNDERSTANDING CRITICAL PATHS TO ENGAGEMENT

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ABSTRACT

MEANING OF WORK AMONG CANCER SURVIVORS: UNDERSTANDING CRITICAL PATHS TO ENGAGEMENT

Though connections between meaningful work and employee engagement exist, almost no empirical research has examined this relationship. Both meaningful work and employee engagement have important implications for employees and their employing organizations, especially in the context of stressful events or circumstances. The present study adds to our knowledge as to how the two constructs might relate to each other, by examining a population that was hypothesized as facing great barriers to becoming engaged: cancer survivors. Data for this study were collected by conducting semi-structured in-person and phone interviews with 12 employed cancer survivors. Interviews were coded and analyzed using grounded theory techniques to determine how meaningful work relates to employee engagement in situations of duress. The results suggest that participants reframed or reappraised the meanings they found at work in several ways that implied engagement (e.g., motivation to continue working or return to work). Based on the results of this initial grounded theory study, propositions are made for future investigation.

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CHAPTER 1: INTRODUCTION

Engagement is a hot topic and what we know of it, thus far, is that it is fostered by work environments that allow employees to feel safe, available, present, and derive meaning, where they employ their cognitive, emotional, and physical selves to the job, with vigor, dedication, and absorption (Kahn, 1990; Maslach, Schaufeli, & Leiter, 2001). Most engagement research, to date, has studied samples that enjoy normal working conditions, a minimal amount of stress, and are physically able to throw themselves into their jobs (Airila et al., 2012). Yet, for the more than 3.8 million employees who are diagnosed with cancer, an often cognitively, emotionally, and physically debilitating illness (can be life threatening, depending on the advancement of the cancer and its type), is engagement at work out of their reach? Is employee engagement only a concept that requires the most optimal of conditions for both the employee and the organization, or are we missing the boat in determining all the elements that foster employee engagement?

The purpose of this study is to understand the meaning of work and its relation to fostering and maintaining engagement by examining how cancer survivors, a group of people experiencing less than optimal work and life conditions, view work. The current study explores the meanings cancer survivors assign to work after diagnosis to understand how these meanings of work lead to employee engagement.

What is Engagement and Why is it Important?

Engagement can be defined as individuals giving all of themselves to their work and features cognitive, behavioral, and emotional components (Kahn, 1990). Kahn suggests that engagement is “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally

during role performances” (p.694). Kahn adds that engagement is the theoretical opposite of disengagement, which he defines as the disconnection between selves and work roles.

Maslach, Schaufeli, and Leiter (2001) offer an alternative definition of engagement, suggesting that engagement is the positive antithesis of job burnout and is comprised of vigor, dedication, and absorption. High levels of energy, effort, and persistence characterize vigor. Dedication is characterized by significance, enthusiasm, inspiration, pride, and challenge. Lastly, absorption is characterized by being fully focused and absorbed in one’s work. Absorption is closely related to Kahn’s holistic definition of engagement, where engagement means a psychological presence in one’s work.

Employee engagement has become a popular topic among organizations interested in maximizing human capital performance and employee well-being at work (Robinson, Perryman, & Hayday, 2004). The growing popularity of this construct may be attributed to the positive benefits associated with employee engagement. For example, the Gallup Organization (2002) estimated that the annual cost of unengaged employees in the United States is between \$292 and \$355 billion. Further, employee engagement has been associated with high profit margins, productivity, customer satisfaction, and safety (Harter, Schmidt, & Hayes, 2002). Engagement has also been associated with a number of positive attitudes and performance behaviors such as organizational commitment (Bakker & Schaufeli, 2008; Saks, 2006), organizational citizenship behaviors (Saks, 2006), self-reported health and working ability (Airila et al., 2012; Rothman, 2008), low turnover intentions (Saks, 2006; Schaufeli & Bakker, 2004), and job performance (Bakker & Bal, 2010).

In addition to such positive organizational outcomes, employee engagement has been linked to positive individual outcomes. For example, employee engagement has been positively

associated with job satisfaction at the individual level (Saks, 2006) and employee well-being (Rothman, 2008). Such correlates are not surprising as engagement itself is posited as a positive and fulfilling state of mind, which is enjoyable for employees (Schaufeli et al., 2002). Sonnentag (2003) offers further support for this perspective, suggesting that engagement is related to positive work affect. That is, employee engagement might promote positive emotions in the context of work.

Employee engagement is becoming an increasingly salient topic in the context of the changing workplace. Organizational layoffs, widespread downsizing, and mergers can leave employees feeling overworked, exhausted, and stressed (Barling, Kelloway, & Frone, 2007). Given Maslach et al.'s (2001) conceptualization of employee engagement as the antithesis of burnout, it is easy to see how such organizational changes might diminish employee engagement levels. However, even in organizations not conducting widespread layoffs or major organizational changes, employees may face personal barriers to employee engagement. Normal work demands can result in reduced employee engagement when individuals do not experience sufficient personal recovery and downtime from work (Sonnentag, 2003). The implications of these findings are that organizations need to consider how engagement might develop and grow despite organizational or personal challenges.

How is Employee Engagement Fostered?

The Job Demands-Resources (JD-R; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) model and Kahn's (1990) conceptualization of engagement offer two views on how employee engagement is fostered. These streams of work have been the predominant perspectives in the engagement literature. Further, these perspectives provide insight into what psychological and organizational elements might drive engagement.

Job Demands-Resources

One of the predominant perspectives regarding what fosters engagement is the JD-R model (Bakker & Demerouti, 2007). According to this model, engagement is exclusively predicted by the availability of job resources. The JD-R model was developed to help understand when employees are likely to be engaged versus unengaged. This model draws from Karasek's (1979) job demand-control model, which proposes that the possible negative effects of high job demands can be buffered by high levels of control or decision-making latitude in one's job. The JD-R model follows this logic, adding that job demands can be buffered with the right *resources* in one's job.

Authors of the JD-R model (Bakker & Demerouti, 2007) argue that conditions in the workplace can be categorized as either demands or resources. Stressors are distinguished from job demands; whereas stressors are external factors that can induce strain on individuals in an array of situations, job demands are actual arduous aspects of the job that can result in negative physical and psychological outcomes. Job resources refer to aspects of the job that help individuals achieve work goals, reduce the costs of job demands, and promote personal enrichment and growth. The JD-R model suggests that burnout is largely predicted by job demands, whereas engagement is exclusively predicted by job resources (Schaufeli & Bakker, 2004). Furthermore, research has shown that job resources actually buffer job demands (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). Though the JD-R model offers insight into how job demands can be buffered by resources in the workplace, the model offers little insight into how demands extending beyond the work environment might interact with one's level of engagement.

Kahn (1990)

Drawing from Hackman and Oldham's (1976) job characteristic theory (JCT), Kahn (1990) suggested that certain characteristics of the job result in psychological states that ultimately promote positive individual- and organizational-level outcomes. Jobs that feature skill variety (the extent to which an employee must utilize diverse skills in his or her job), task identity (the degree to which an employee is required to produce a complete piece of work, versus fragmented pieces of that work), and task significance (the extent to which the tasks required of an employee have a real impact on the lives of others) promote experienced meaningfulness. The JCT further proposes that experienced meaningfulness should, in turn, lead to positive work outcomes (e.g., internal motivation, job satisfaction, performance quality, low absenteeism, low turnover; Hackman & Oldham, 1976). Experienced meaningfulness, in this context, refers to how much an individual *cares* about what he or she is doing (Hackman & Oldham, 1976).

Leveraging the JCT's suppositions that psychological states lead to motivation, Kahn (1990) proposed that psychological safety, psychological availability, and psychological meaningfulness are psychological conditions that promote engagement. The first psychological condition in Kahn's work, *psychological safety*, refers to workers' feelings that expressing themselves in their roles will not engender negative consequences (i.e., consequences to one's self-image, career, or status). Essentially, psychological safety refers to how 'safe' one feels to be personally engaged. According to Kahn's work, four predominant factors influence psychological safety: interpersonal relationships, group and intergroup dynamics, management style and process, and organizational norms.

The second psychological condition in Kahn's (1990) model is *psychological availability*. Availability refers to an employee's impression that he or she has the emotional, physical, and cognitive capacity to express him/herself in role performances. Essentially, availability asks the question: "do I have the resources I need to put all of myself in my role?" Kahn found that four factors influenced psychological availability: physical energy, emotional energy, insecurity, and outside life.

Kahn (1990) defines *psychological meaningfulness* as "feeling that one is receiving a return on investments of one's self in a currency of physical, cognitive, and emotional energy" (p. 704). According to his model, three prominent factors influence psychological meaningfulness: task characteristics, role characteristics, and work interactions. Furthermore, tasks characterized by challenge, variety, creativity, autonomy, and those with clear goals and procedures influence meaningfulness. Kahn adds that roles perceived as attractive and that fit with one's self-image are characteristics of roles that promote psychological meaningfulness. Interpersonal relations that reflect self-respect, self-appreciation, value, professionalism, and personal features will improve psychological meaningfulness.

In support of Kahn's (1990) model, May, Gilson, and Harter (2004) conducted a correlational field study showing that psychological meaningfulness was the strongest predictor of engagement and was related to two of Kahn's aforementioned factors that are hypothesized to promote meaningfulness: task characteristics and role characteristics. This finding is consistent with JCT (Hackman & Oldham, 1976), where elements of the job predict meaningfulness.

The Research Question

Meaning of work is important given the changing work environment. Changes in the workplace have meant increasing demands and pressure on workers. Thus, given the growing

demands and stressors in the workplace, people have become more cynical regarding their work (Cartwright & Holmes, 2006). Meaningful work, however, may offset the demanding nature of today's jobs. Therefore, organizations should focus on helping workers develop meaningful work in order to reduce their negative attitudes towards work, especially during stressful times.

A corollary to the perspectives on engagement suggests that a lack of meaningfulness, safety, availability, and job resources should result in no engagement or disengagement. Such situations (lack of critical conditions for engagement) might arise under economic hardship such as what we are experiencing in the world market during the recession, extra work, and changes at work (such as mergers, changes in leadership, etc.). Specifically, contemporary businesses are rapidly changing to respond to shrinking global markets and tough economical conditions, and such change can induce stress among employees, deterring them from becoming engaged (Van den Heuvel, Demerouti, Schaufeli, & Bakker, 2010). For example, according to Modern Survey National Study (2010), employee engagement plummeted in the financial industry after the 2007-2008 economic downturn, providing evidence that negative psychological states, such as survivor stress, uncertainty, and anxiety inhibit employee engagement.

The above are work-driven conditions that may inhibit engagement. Another condition is where employees have endured stressors *unrelated* to work, such as ill health, death in the family, chronic family problems, trauma, or natural disasters. Such conditions are just as likely, prevalent, and/or potentially more important in peoples' lives than work-driven conditions (Greenhaus, 1987). Yet, understanding employees' work situation under normal conditions primarily drives our understanding of engagement and, to date, few studies have examined the role of the intersection between personal life and work engagement (Halbesleben, Harvey &

Bolino, 2009). A gap in our understanding, therefore, is whether employees can still be engaged under conditions of duress.

Meaningfulness of Work: Key to Engagement

For many, work is more than a mechanism to gain financial resources; it is also a source of expression of the self, accomplishment, and purpose (Morse & Weiss, 1955). People want their work to reflect who they are and seek to find meaning of work because it should improve their working lives (Brown et al., 2001). Meaning can be broadly defined as the value we place on our connection with things, events, and others (Baumeister, 1991; Baumeister & Vohs, 2002). This definition of meaning asks the question: what is my *connection* to things, events, and others?

When individuals' jobs feature several core job dimensions (skill variety, task identity, and task significance), they experience meaningfulness (caring about the job that they do; Hackman & Oldham 1976, 1980). Kahn (1990) adds to this model, suggesting that people experience meaningfulness when they feel as if their emotional, cognitive, and physical inputs are valuable and important. He suggested that meaningfulness is a psychological pre-condition for engagement. People who experience meaningfulness engage fully in their jobs; they feel as if their work is important and valued, and "as though they made a difference and were not taken for granted" (Kahn, p. 704). Though Kahn's work hints at meaningful work as important in engagement, Kahn's meaningfulness does not truly represent conceptualizations of meaning of work. Actually, it reflects equity theories in that people feel as if their work is valuable and they are seeing equally valuable results or recognition for that work (Adams, 1965).

Maslach et al.'s (2001) conceptual definition of dedication mirrors Kahn's meaningfulness in that dedication reflects the extent to which one feels inspired, proud, and

enthusiastic about one's work and that one's work is challenging and significant. Despite these perspectives, meaning of work researchers (e.g., Rosso et al., 2010) argue that understanding characteristics of the job does not fully explain why individuals find work more meaningful.

In an extensive review, Rosso et al. (2010) attempted to synthesize the literature on meaningful work in order to develop a comprehensive understanding of its sources. The authors suggest a theoretical framework that highlights two pathways to meaningful work: 1) agency vs. communion, and 2) the self vs. others. Agency refers to one's arrival at meaningful work or result of differentiation, separation, assertion, expansion, mastery, and creation. The opposite path, communion, is one's meaning of work driven by needing or wanting to belong at work. Further, the self and others are ways in which we find meaning. People find work more meaningful through elements of the self; perceptions of the self, values, motives, and beliefs influence one's meaning of work. Further, people find meaning of work through interactions with others, groups, and organizations both inside and outside of the workplace.

Steger and Dik (2010) proposed a different model suggesting that meaningful work can be further characterized by an individual's comprehension and purpose of work. Comprehension refers to the degree to which workers have a clear sense of their work experience. Comprehension includes three components: 1) one's understanding of oneself in the context of work (i.e., capacities, abilities, self-efficacy at work), 2) one's fit within an organization, and 3) one's understanding of fit within society at large. The authors further argue that comprehension is critical for people's "coping with adversity, efforts to navigate through the world around them, establish and cultivate close relationships, and develop...purpose" (p. 133). Purpose, the second component of meaningful work, refers to workers' long-term mission in the context of work. Similar to comprehension, purpose is the composite of three factors: 1) personal purpose, 2)

organizational purpose, and 3) leadership purpose. Steger and Dik suggest that when these factors align, individuals will have more meaningful work.

Meaning of work has also been defined as what work signifies to the individual (Pratt & Ashforth, 2003). According to this perspective, meaning of work answers the question: what is work all about for me? Meaning of work and meaningful work are often used interchangeably. However, meaning of work can also be distinguished from meaningful work, where meaning of work refers to what work *signifies* to individuals; this implies that there are numerous *types* of meaning of work (e.g., work can mean a source of resources, a calling, and/or a place to make good relationships, etc.). Meaningful work, in contrast, suggests that 1) individuals can vary with respect to the volume of meaning assigned to work (i.e., for some work is more *meaningful* than others) and 2) those meanings have a positive valence (Rosso, Dekas, & Wrzesniewski, 2010).

For the purpose of this paper, my conceptualization of meaning of work and meaningful work aligns closely with Rosso and colleagues' (2010) definition, where meaning of work is what work signifies for the individual, and meaningful work describes a person's collection of positive meanings assigned to work. Considerable conceptual overlap exists in the literature on meaning of work and meaningful work and these terms are rarely distinguished in the literature, contributing to construct confusion (Rosso et al., 2010). Though the current study ultimately examines both meaning of work and meaningful work, I attempt to use the construct names as defined by Rosso and colleagues.

Connecting Meaningfulness to Engagement

People who experience meaningful work consider it central, important, and valuable in their lives (Harpaz & Fu, 2002), and as a result, they put great emphasis on their work (Nord, Brief, Atieh, & Doherty, 1990). Meaningful work has been positively associated with well-being

(Arnold, Turner, Barling, Kelloway, & McKee, 2007), affective organizational commitment (Scroggins, 2008), and job satisfaction (Brown et al., 2001; Kamdron, 2005; Scroggins, 2008; Sparks & Schenk, 2001), and negatively associated with turnover intentions (Scroggins, 2008).

There exist a few theoretical explanations for how meaningful work connects to engagement. For example, self-determination theory (Deci, 1975; Ryan & Deci, 2000a) offers one explanation for why meaningful work might be related to employee engagement. In a broad sense, self-determination theory suggests the importance of intrinsic interest in motivation (Deci, 1975), where motivation can be plotted on a continuum from extrinsic motivation (when people are motivated by the prospect of receiving rewards) to intrinsic motivation (when individuals are motivated by their own interest to behave in ways consistent with their selves; Ryan & Deci, 2000a). Consistent with this continuum, Ryan and Deci suggest that there are different types of intrinsic motivation. One type, identified motivation, speaks to why meaningful work might be related to engagement. Identified motivation occurs when individuals value a goal or task and this goal becomes personally relevant (Ryan & Deci, 2000a). Individuals who are motivated through identification will experience high levels of job satisfaction and performance (Sheldon, Turban, Brown, Barrick, & Judge, 2003). It is possible that when an individual values work a great deal, it becomes personally relevant. Such identified motivation might explain why people harness themselves to their work roles; that is, become engaged.

As a second example, Holbeche and Springett (2004) suggest that meaningful work should be related to employee engagement because leaders, seeking to motivate peak performance from their employees, help them to find meaning and connection at work, adding that meaning is central to both employee engagement and organizational commitment. The

implication of Holbeche and Springett's findings is that meaning is a central concept that triggers employee engagement.

In a third example, Rosso et al.'s (2010) theoretical conceptualization of possible pathways to meaningful work, they propose that the intersection between pathways of the self and pathways of communion is characterized by self-connection. Self-connection is the extent to which people find meaning in their actions, which promotes alignment with the way people see themselves. Individuals who arrive at meaningful work via self-connection should experience personal engagement. That is, when people feel that their actions are meaningful and their 'selves' are aligned, they may engage in their work roles.

Despite these theoretical explanations and studies that tangentially suggest that meaningful work is related to engagement, there still exists a lack of empirical evidence showing that meaning is a critical path to fostering and maintaining engagement.

Cancer Survivors

Initial evidence indicates that cancer survivors are engaged (Gudbergsson, Fossa, & Dahl, 2008) and, in light of their diagnosis, find new positive meanings of work, where work takes on a new meaning for them (Petee, 2000; Rasmussen & Elverdam, 2008). Such positive findings are somewhat unexpected given the demands associated with cancer. As a result of their diagnosis, cancer survivors face physical, emotional, and cognitive demands, which make work more challenging than for those without cancer. Such challenges would suggest that survivors are a population that might be the least engaged at work (Gudbergsson, Fossa, & Dahl, 2008).

In the United States alone, over 1.5 million people are diagnosed with cancer each year, and this number is on the rise (American Cancer Society, 2010). Fortunately, survival rates continue to improve due in part to improvements in diagnoses and treatments (Jemal et al.,

2008). In 2006, in the United States alone, approximately 3.8 million working-age adults (between the ages 20 and 64) were cancer survivors (Hewitt, Greenfield, & Stovall, 2006). Increasing trends in diagnoses and survival rates have important implications for cancer survivors and their employing organizations because many cancer survivors attempt to continue work, even through treatment.

Numerous definitions of what is meant by ‘cancer survivors’ exist in both cancer research and practice. Generally speaking, cancer survivorship is a fairly broad concept. According to Mullan (1985), cancer stages, phases, and treatments are complex across patients. He argued that cancer is not a disease where individuals are “cured” or “not cured”, but rather that individuals living with cancer should be described as surviving the disease. Thus, he introduced the term survivors as a way to describe individuals who have been diagnosed with cancer and to recognize the complexity and dynamic nature of the disease. He also argued that limiting the scope of the term survivorship does not serve to benefit the well-being of those diagnosed with cancer. Thus, I adopt Mullan’s definition of cancer survivors as living individuals who have been diagnosed with cancer in the past and who may or may not be undergoing treatment or in a state of remission.

Given that cancer is a potentially life threatening illness, often associated with the demanding nature of treatments such as radiation and chemotherapy, it is not surprising that cancer survivors experience cognitive, physical, and affective challenges in their working lives. Cancer- and treatment-related symptoms such as fatigue (Bower, 2005; Spelten et al., 2003), depression and anxiety (Carr et al., 2002), physical limitations and pain (Bradley et al., 2007; Sesto & Simmons, 2008), cognitive limitations (Bradley et al., 2007; HVBCF, 2003), and work-related anxiety and insecurity (Maytal & Peteet, 2008) create challenges for cancer survivors and

may interfere with optimal work functioning. Indeed, the consequences of survivors' cognitive, affective, and physical challenges do not go unnoticed in the workplace. For example, in a review of literature examining the work experiences of cancer survivors, Steiner, Cavender, Main, and Bradley (2004) found that survivors often have significant reductions in productivity and higher rates of discontinuing work as compared to individuals without cancer.

The physical, cognitive, and affective challenges survivors face mirror Kahn's (1990) conceptualization of distractions to psychological availability. Kahn suggests that the most salient distractions for psychological availability included depleted physical energy (exhaustion or inability to physically take on tasks), depleted emotional energy (emotional and cognitive exhaustion), work insecurity and anxiety (lack of self-confidence and heightened self-consciousness), and outside life (preoccupation with non-work events). These distractions are undoubtedly similar to the cancer-related and cancer treatment-related symptoms (i.e., fatigue, physical limitations, cognitive limitations, emotional strain, job insecurity and anxiety), which prevent optimal performance and return to work among cancer survivors.

As an example, Hakanen and Lindbohl (2008) conducted a survey study to determine the role of job resources (organizational climate, social support, and avoidance behavior) and personal resources (optimism vs. pessimism) on employee engagement among cancer survivors in comparison to a referent group of non-cancer survivors. Their results suggested that compared to the referent group, cancer survivors were slightly less engaged. Further, the authors found that job resources predicted engagement equally across both groups, whereas optimism was more closely related to engagement among breast cancer survivors in comparison to the referent group.

Similarly, Gudbergsson, Fossa, and Dahl (2008) conducted a study examining survivors' engagement among tumor-free cancer survivors. This study sheds some light on

Hakanen and Lindbohm's (2008) findings regarding depleted levels of engagement among survivors. Specifically, Gubergesson et al. found that despite having significantly lower vigor (level of work energy and willingness and ability to invest energy into work) than the non-cancer survivor referents in the study, cancer survivors maintained overall work engagement. The study offered beneficial information regarding survivors and engagement: cancer survivors may be no less engaged in their work than those without cancer, despite facing additional challenges (i.e., decreased vigor).

The studies conducted by Hakanen and Lindbohm (2008), and Gudberesson et al. (2008) provide initial evidence that cancer survivors face added barriers in maintaining engagement; barriers that non-cancer employees do not have. Further, the studies hint at the potential for personal and organizational resources in helping survivors overcome such barriers.

Despite challenges, survivors also participate in a search for personal meaning (O'Connor, Wicker, & Germino, 1990). This search for personal meaning has also been described as meaning making (Park, Edmondson, Fenster, & Blank, 2008). Meaning making is especially salient in the context of a stressful life experience or in the presence of stressors (Park, 2010). In this context, meaning making refers to efforts to incorporate the stressor (i.e., cancer diagnosis) into one's global sense of meaning (Park & Folkman, 1997). Park suggests that this meaning making process can result in global changes of beliefs and values and the formations of new meanings. Global meaning may include one's meaning of work and, therefore, meaning making may result in *changing* one's meaning of work. In the context of cancer survivors, survivors may engage in meaning making that results in new meaning of work or changes to existing meanings of work, as evidenced by the various new positive meanings survivors place on work after diagnosis (Peteet, 2000; Rasmussen & Elverdam, 2008).

Despite the barriers that survivors face that should inhibit their ability to maintain engagement (i.e., reduced vigor or psychological availability), it appears that survivors view work in such a way that gives them meaning and purpose. For survivors, work may represent a source of identity and self-esteem (Freedman & Fresko, 1996; Peteet, 2000), structure amidst chaos (Rasmussen & Elverdam, 2008), and a return to normality (Peteet, 2000) that factor into meaningful work. It is possible that for survivors, the meaning of work becomes more salient or important, which helps them maintain or develop engagement at work. However, as previously mentioned, the relationship between meaning of work/meaningful work (what work itself means/ a collection of positive meanings) and employee engagement has yet to be fully explored.

Present Study

The aim of the current study was to understand how meaning of work is related to employee engagement by studying a sample facing significant personal barriers to becoming engaged. To accomplish this goal, I conducted a qualitative study that explored the meanings cancer survivors assign to work and how such meanings changed after diagnosis. Further, I explored participants' indications of engagement prior to and after diagnosis, relying on recall of retrospective attitudes.

By examining survivors, a population that faces many barriers to engagement (i.e., decreased vigor/ depleted psychological availability), the current study contributes to our understanding of how employees may stay engaged during times of personal duress. First, if survivors report positive meanings of work as helpful in maintaining and/or promoting engagement in their working roles, the present study will advance our current knowledge base by identifying meaningful work as a possible key factor in engagement. Second, by examining a population that has depleted vigor/psychological availability, regardless of industry, job type, or

level in the organization, the current study controls for potential confounding variables in the workplace, adding to our knowledge of what drives engagement when personal resources are low regardless of work environments.

CHAPTER 2: METHOD

The grounded theory approach to qualitative research for data collection and data analysis was used in this study. This approach, originally developed by Glaser and Strauss (1967), is a method that allows the researcher to systematically collect and analyze data for the purpose of exploring unexplored phenomena, with the ultimate goal of developing theory (Creswell, 1998). Grounded theory was chosen as the method of qualitative research for this study as it is an appropriate approach to use when trying to assess the meanings (i.e., meaning of work) individuals assign to complex and significant experiences (i.e., cancer diagnosis and survivorship) and how these meanings might relate to other constructs (i.e., employee engagement; Hoshmand, 1989; Polkinghorne, 1991).

Maintaining the integrity of grounded theory is of utmost importance for this study. The purpose of grounded theory is not to test specific hypotheses (Suddaby, 2006). Instead, grounded theory should be used when there is an unexplored phenomenon and when the researcher wants to explore the phenomenon for the purpose of developing theoretical understanding of how constructs relate to each other (Charmaz, 2006). Accordingly, through the focus of the current study was on the possible role of meaning of work in employee engagement among cancer survivors, I also gave attention to other unexplored drivers of engagement (i.e., other ways in which survivors maintain or foster engagement).

Participants

A theoretical sample of employed cancer survivors was recruited to voluntarily participate in this study. A theoretical sample is a sample of participants who are chosen based on their abilities to contribute to the theory development (Creswell, 1998). As suggested by Creswell, this type of homogenous sampling is necessary at the first step of theory development

when using grounded theory methodology because *all* of the members of the sample have had experiences that may add value to the theory. Though some studies have examined non-cancer survivors as referents to examine the role of cancer on specific aspects of work (e.g., Gudbergsson et al., 2008; Hakkanen & Lindbohm, 2008), this is not critical for the current study, nor is it consistent with theoretical sampling. The goal of this study is not to compare the role of cancer on meaning of work and engagement to non-cancer survivors, but instead to develop a better understanding of how individuals facing great personal challenges view and engage in their work. Heterogeneous samples may be used in future studies in order to prove or disprove any theoretical relationships proposed from initial grounded theory studies' findings (Creswell, 1998).

After interviewing 12 participants, theoretical saturation was reached. Theoretical saturation refers to the point in a qualitative study when additional data reveals no new insight (new theoretical categories or properties) on the developing theory (Charmaz, 2006). Therefore, in sampling a population, the purpose should be to gather data from participants until saturation occurs. In the case of this study, after 12 interviews, I found no new patterns emerging, and several consistent patterns emerging.

At the start of each interview, demographic information was collected. This included age, gender, ethnicity, cancer type, time since diagnosis, treatment plan, job, and tenure at current organization. Collecting this information helped build early rapport and served as a "getting to know you" tool before delving into questions regarding meaning of work and engagement. Though demographics were collected primarily to establish rapport, presenting the demographics also demonstrates the variety in age, gender, ethnicity, cancer types, years as survivor, course of treatment, occupation, and tenure in current position. The demographics also provided a context

from which the survivors were reporting. However, no consistent individual differences were found in reporting of categories across the interviewees.

The age of participants ranged from 29 to 67 ($M= 53$, $SD= 10.91$). Of the 12 participants, 7 were female, and 5 were male. With respect to ethnicity, 75% of the participants were Caucasian. Hispanic ($n=1$), Native American ($n=1$), and Asian ($n=1$) ethnicities were also represented in this sample. With respect to cancer type, 50% of the participants were breast cancer survivors ($n=6$). Melanoma ($n=1$), esophageal ($n=1$), leukemia ($n=1$), lymphoma ($n=2$), brain ($n=1$), and prostate ($n=1$) cancer types were also represented in this sample. One participant had two types of cancer (prostate and lymphoma). The number of years participants had been survivors ranged from 1 to 19 years ($M= 6.58$, $SD=4.96$). With respect to treatment, 91.7 % of the participants underwent surgery after diagnosis, 75% of the participants were treated with chemotherapy after diagnosis, and 58.3% of the participants underwent sessions of radiation after diagnosis. Further, 100% of the participants took some medication or adjusted their diets for treating cancer after diagnosis.

A wide variety of occupations were represented in this sample including: administrative assistants ($n=4$), software engineers ($n=3$), nurse ($n=1$), psychologist ($n=1$), construction worker ($n=1$), teacher ($n=1$), and actor ($n=1$). Further, there was a good deal of variation with respect to tenure in current role. The number of years participants had been in their current working role ranged from 1.5 years to 35 years ($M=14.96$, $SD=11.95$). The majority of participants were in their current roles when diagnosed ($n=8$), however some participants changed working roles some time after diagnosis (either the participant changed careers, moved to a new organization, or changed working role within the organization; $n=4$).

Data Collection

To collect the sample, contact was made with social workers and support group facilitators working with cancer survivors in the state of Colorado. Though not traditionally a grounded theory approach, finding a ‘gatekeeper’, or an individual who has an established relationship with a specific group of interest is an ethnographic approach used to establish rapport and trust (Creswell, 1998), both of which are critical to grounded theory studies. I was able to identify and contact several gatekeepers (i.e., social workers and support group facilitators working with cancer survivors in the following regions: Fort Collins, Boulder, and Denver). Recruiting materials were given to support group facilitators and social workers to recruit survivors for interviews. In addition, a snowball sampling technique (Miles & Huberman, 1994) was used, whereby participants were asked to recommend other cancer survivors who may be interested in participating in the study. The snowball method served to recruit approximately 3 of the 12 participants.

For this project, I applied for normal human subjects review and received approval. Since this study did not require any specific medical information from the survivor other than general information regarding cancer (type, time since diagnosis, and general treatment), HIPAA approval was not required. Though health information was provided voluntarily in the interviews on the part of the survivors, all identifiers of the individual, and any other individuals or organizations mentioned in the interview were removed, as required by HIPAA guidelines (U.S. Department of Health and Human Services, 2011).

The method of data collection was one-on-one semi-structured interviews, and these interviews were conducted both in person and over the phone. Interviews were chosen as the data collection method because I needed to develop rapport with the participants to gain access to

detailed information regarding their personal experiences with cancer. Interviews were recorded using a digital voice recorder. Prior to the interview, I obtained informed consent. For phone interviews, consent forms were provided via e-mail prior to the interview and participants scanned or faxed the filled out consent forms prior to the beginning of the interview.

Interview questions for survivors (see Appendix A) were designed to determine how cancer survivors develop engagement and experience meaning in their working roles prior to and after diagnosis. Consistent with grounded theory, a few open-ended questions such as, “What were your experiences at work like after diagnosis?” were asked at the start of the interview. As individuals shared more about their experiences at work, probing items were used to develop a clearer understanding of survivors’ experiences, such as “tell me more about that”. Two cancer survivors served as subject matter experts and reviewed the initial interview questions and provided written feedback for improvements on capturing survivors’ experiences through the interview questions and probes. These two subject matter experts were not included in the study sample. Further, as suggested by grounded theory, early responses informed future questions. As such, in addition to piloting the interviews with two survivors, further interview questions were developed as the study progressed.

I transcribed all audio data verbatim. Interviews were transcribed within several days of each interview. Once interviews were transcribed, original audio data was deleted to keep participants’ identities confidential and anonymous.

One step in ensuring methodological rigor is memo writing (Richards, 2009). Memo writing refers to the process in which one takes notes to track the development of theory in the process of conducting a grounded theory study. Throughout the study, I used memo writing to identify gaps in data, tracking biases, tracking emerging theory, and tracking theoretical

saturation. Conducting memos during the course of the data collection allowed for an improved interview script. That is, as theory emerges, gaps in data also reveal themselves; adjusting interview questions and probes to get at missing data is helpful in this process. Memo writing was also used during the coding process to track my own biases and thoughts on emerging theory or patterns from the data, and additionally served as a way to track potential theoretical saturation (Charmaz, 2006).

Data Analysis

Grounded theory is often referred to as the constant comparative method because the researcher must compare assumptions to the data in an iterative fashion in order to reach theoretical saturation (Scott, 2004). Grounded theorists suggest coding incrementally instead of after all of the data has been collected (Charmaz, 2006), and so I adopted this approach in my study. As emerging categories formed, I was able to identify new information that related to those categories, and also identify gaps to fill (i.e., more interviews and better interview questions) to reach theoretical saturation and accomplish the current study's aims.

As I transcribed the data, I used coding techniques required in grounded theory to analyze and make sense of the data (Strauss & Corbin, 1990). Open coding was completed using NVivo 9.0 software. Open coding refers to coding that breaks apart the data to identify initial categories in the data. Twelve interview transcriptions were reviewed line by line. Emerging categories were then selected and coded. For example, upon reading in a transcription that a participant acknowledged having a difficult time physically conducting his or her job after diagnosis and cancer-specific treatments, the text was selected and noted as "physical interference", one of the identified subcategories of "interference". According to Charmaz (2006), *In vivo* codes should be used when these terms capture the essence, meaning, and significance of the participants'

experiences. *In vivo* codes refer to code names developed based on the language and terms used among study participants in qualitative research (Richards, 2009). As such, I used the textual experiences of survivors to guide the initial categories and subcategories. Take, for example, physical Interference: “I felt like my *physical challenges* after diagnosis *interfered* with my working abilities”. New nodes were also assigned *definitions*. I used definitions that best captured the experience among all participants who mentioned the category. For example, *Physical Interference*: Participant reports that cancer makes work more physically challenging because of surgery, chemotherapy, radiation, or symptoms of the disease itself. In open coding, it became clear that some text or excerpts fit in numerous categories. As such, some data were coded in more than one category.

After I completed open coding for seven transcribed interviews, an independent reviewer examined both the transcriptions and the open coded data in a spreadsheet format. The independent reviewer was a doctoral student in an Industrial and Organizational psychology program and had experience with qualitative methods and the coding process. The reviewer rated whether or not the assigned code fit the corresponding transcribed text (i.e., the reviewer indicated “code fits data” or “code does not fit data excerpt”). Further, this independent coder reviewed the transcripts and added missing data selections that I had not previously coded. Finally, the reviewer commented on code definitions in terms of clarity and the extent to which the definitions captured the essence of the transcribed interviews. Accordingly, I made coding adjustments based on this reviewer’s suggestions (e.g., coding missing text and adjusting definitions for clarity purposes). Ultimately, this reviewer challenged my assumptions with the data and served as a second eye in coding text that was not previously coded. Lessons learned

from this process informed future open coding with the rest of the data (the five remaining interviews).

After having a reviewer check and challenge my assumptions with the initial open-coded data, the next step in the analysis process was axial coding. Axial coding refers to the process in which the data are regrouped by sorting and organizing subcategories into categories developed in open coding (Strauss & Corbin, 1990). In this process, the most central or core categories are determined by examining the frequencies with which they appear in the data. From the first seven interviews, seven core categories emerged (these categories are discussed in detail in the results section).

After axial coding, to further ensure methodological rigor, I conducted an interrater reliability analysis. Doing so is frequently used in content analysis, somewhat less so in grounded theory methodology (Hayes & Krippendorff, 2007). Despite its rare use in grounded theory approaches, estimating interrater reliability is useful as it provides a quantitative estimate of “the extent to which data can be trusted to represent genuine rather than spurious phenomena” (Krippendorff, 2008, p. 350). I recruited three separate independent raters to accomplish this task. The three raters were also doctoral students in an Industrial and Organizational psychology graduate program and were familiar with qualitative methods; all three students had previous experience with coding and handling qualitative data. The raters examined text that I had open-coded and axial-coded; that is the data had been assigned initial open codes *and* coded at broader categories and subcategories. Choosing from seven previously established codes and definitions, the coders assigned the text data to one or two of the seven categories. The raters were also given the option to choose ‘other’ if no categories matched the text. Further, the raters were

encouraged to comment on the extent to which categories matched the text and on the clarity of the categories and subcategories and their definitions.

Krippendorff's alpha was calculated for interrater reliability, as it is the measure of reliability used in qualitative research to calculate the extent to which two or more independent raters come to the *same* subjective judgments (Krippendorff, 2011). Rating 66 textual experiences that had been previously open- and axial-coded, the raters had high agreement with each other ($\alpha = .87$). After a calibration meeting (where raters discussed their rationale for choosing certain categories for specific text), further agreement among the raters was obtained ($\alpha = .98$).

These estimates of reliability suggest that the raters largely agreed upon the fit of text falling into one of seven pre-determined categories. Only three out of 66 textual experiences were marked by the group as "other", suggesting that the categories and their corresponding definitions fit the data. High reliability estimates and verbal confirmation from independent raters suggested that my initial interpretation of the data should continue. Therefore, I open- and axial-coded the remaining five interview transcriptions independently.

Selective coding was the final step in the analysis process. Selective coding is a process by which the core categories are compared to determine their relationship in the theory. Selective coding asks the question: how do categories fit into the developing theory? Once the theory was established, I conducted a validation effort in which I searched for both confirming and disconfirming evidence in the data to examine whether or not the proposed relationship of categories held true across the data. I created a conditional matrix, which serves as a visual tool for organizing categories' definitions and understanding the outcomes of categories (Scott, 2004). To build the conditional matrix, I asked the following questions: 1) how do interviewees really define this category or *what* is this category? and, 2) based on interview responses, what is

the *outcome* of this category? Once theoretical saturation had occurred, I took information from the conditional matrix to present propositions regarding the relationships between categories and potential outcomes of those categories (Charmaz, 2006). In presenting the propositions in the results section, I also returned to current literature in several psychology domains to identify theoretical justifications as to how and why the categories might also be related to the outcomes.

CHAPTER 3: RESULTS

The description below was written following guidelines and suggestions provided by Pratt (2009). As such, I present the results with an attention towards showing the data (presenting the categories with quote examples) and using organizing figures (presenting categories using a conditional matrix). The results are organized in the following order: 1) overall findings, 2) a description and examples of each of the broad seven categories that emerged from the data, and 3) an explanation of how categories relate to propositions as determined through selective coding (also presented using a conditional matrix; see Appendix B) and current theory and research in psychology.

Overall Findings

Cancer survivors noted reframing or reappraising the meanings they gave to work after diagnosis. More specifically, participants reported finding *new meanings of work* after diagnosis, and some participants suggested *enhanced meaning for meanings of work* that were also important prior to diagnosis. For simplicity, *new meanings of work* will be abbreviated as NMW, and enhanced meaning of work will be abbreviated as EMW in this document. Both NMW and EMW were in the direction of more positive meanings than before diagnosis (e.g., work became about *normalcy*, a return to health and the maintenance of one's identity, or an increased emphasis on positive *relationships*). Given that these meanings were in the positive direction, I argue that individuals found more *meaningful* work after diagnosis by either finding new positive meanings of work or finding meanings more critical after diagnosis. One category that emerged, interference, though not a 'meaning of work', was the negative salience of one's own cancer-related limitations on one's work. Interference was notable for this study and included in the results because it has important implications for engagement. However, ultimately, the data

indicated that working survivors reappraised or reframed what work meant or signified in the context of their lives.

The categories that emerged as prominent in the data were referred to in terms of how these meanings were motivating factors in work, instead of engaging/unengaging. Participants were able to talk about retrospective feelings of motivation (e.g., motivation to work or return to work) more easily than employee engagement. Moreover, participants often suggested it was difficult to remember moments or examples when they were engaged following diagnosis. It is important to note that this was due to a lack of ability to remember being engaged *or* not engaged, not that engagement was not present. This finding did not influence my interpretation of the categories of meaning, nor did it limit my ability to make thoughtful propositions on how these categories may be related to engagement. I offer conservative propositions as to how each positive meaning of work may be related to employee engagement, drawing from previously developed theories in psychological research.

Seven Broad Categories and Propositions

All participants (n=12) suggested that to some extent what work “signifies” changed; participants either reported NMW or reported EMW. After combining the 41 open codes into conceptual categories during axial coding, seven core categories emerged. The final overarching categories were the most prominent themes in the interviews: the meanings that survivors assigned to work after diagnosis. As previously mentioned, interference was not as much a ‘meaning’ as it was a potential inhibitor for engagement. However, I interviewed individuals to find out what gets them engaged during times of duress. Accordingly, interference is reviewed in the following section as well. All categories represented the most core categories (determined by frequency counts). Not all of the participants noted *every* category as representing the new

meanings assigned to work. However, all participants mentioned *at least* one of these categories in the interviews.

The seven categories: relationships, resource importance, normalcy, altruistic avenues, priority change, distraction, and interference are discussed below. The positive meaning categories are presented in order of frequency with which these categories emerged in the data, followed by interference. The definitions of these categories attempt to capture the experiences of the collective interviewees. Thus, these definitions are *inclusive* and represent more than simply one's perspective on that category. These seven broad categories were defined using in vivo codes, where possible. In vivo codes are italicized in interview quotations to demonstrate how codes were named and defined.

Relationships

Participants suggested that after diagnosis, versus prior to diagnosis, relationships at work became more important. For many participants work became a domain where connections were formed, and where support was rallied and received. The relationships category included the subcategory *social support*, in which participants highlighted the importance of social support from coworkers, supervisors, or clients. The relationships category also included the subcategory of *connection*, feeling a need for greater connection to coworkers and people at work (including clients or customers).

The relationships category was one of the most prominent categories in the data and the most prominent meaning of work category, with 83.33% (n=10) of the participants suggesting that work meant a place to find support and connections, and that the need or desire to have meaningful relationships at work was more salient after diagnosis. Some acknowledged that relationships at work were always important in helping them derive meaning from work.

However, even participants who suggested that relationships at work were always important suggested that relationships at work became *more* salient after diagnosis, suggesting that relationships was both NMW and EMW for survivors.

Participants who mentioned relationships as a NMW felt more connected to others at work after diagnosis, “I found my direct coworkers really comforting and they made me feel kind of like connected...” Participant 2 also noted feeling more connected to clients by way of better understanding the human condition after diagnosis, “After cancer [my meaning of work] was different. It’s hard to remember whether or not [work] was more satisfying but I think there was a greater level of connectedness to the human condition.”

Others (such as Participant 5) suggested that work meant a source of social support that was even more critical after diagnosis; that friends at work helped them while working as a survivor, “I mean my friends were even better than ever- when I came to work I was nothing but supported. I knew that I was supported and valued, you know. My friends wanted me back at work feeling great, and when I wasn’t there they helped me manage my work. I couldn’t have done it without them.”

Participants who mentioned that after diagnosis work meant a source of needed and important relationships, also implied that this meaning was related to engagement. More specifically, all of the participants (n=10) who reported relationships as critical to what work signified after diagnosis reported that this meaning was motivating and positive. Therefore, I offer the following proposition:

Proposition 1: Individuals who find relationships as an NMW or EMW will experience employee engagement.

Viewing relationships as an important meaning of work is consistent with existing theoretical conceptualizations of meaning of work. For example, Baumeister and Vohs (2002) suggest that meaning of work means (in part) our connection to others at work. Feeling that connections and relationships as a motivating meaning of work will likely foster employee engagement, though no research to date has examined relationships as a *meaning of work* predicting employee engagement, perceived social and organizational support at work has been identified as an important antecedent of employee engagement (e.g., Rich, LePine, & Crawford, 2010; Saks, 2006).

Resource Importance

Another category that emerged from the data was resource importance. Individuals who mentioned the importance of resources after diagnosis suggested that what work meant after diagnosis was that work (more than ever) served to provide critical resources such as insurance or money. Resources offered by an organization such as flextime and working from home became critical to participants for how work was viewed; resources became an EMW. Of the participants, 66.67% (n=8) noted that resources became more important after diagnosis compared to before diagnosis. For example, Participant 4 mentioned the increased importance of health insurance after diagnosis, “For the current position I'm in I would say [work is] definitely a means of [financial] support, obviously that hasn't changed at all. If anything it's very critical now [after diagnosis] because of health insurance...I would say getting decent and good health insurance is more important [now].” Participant 10 also noted resource importance to be a critical meaning of work, “I think I began to focus on [resources such as medical coverage].

When I was diagnosed was [grateful] that my company had medical coverage. That continues to be really important to me. People were worried about me making a [change in careers] during my treatment but I knew what I was doing...Being in a job helps me keep medical coverage. So that became more meaningful.”

Individuals also added that without the resources available to them in their current jobs, work became difficult and demotivating. For example, Participant 7 mentioned potential negative outcomes (i.e., burnout) if she had not been given the resources that her organization gave her, “I mean if you don't have a good company that supports you it would be extremely hard. I'm really thankful that my company is very supportive they paid 90% of my short-term disability. Allowed me to work from home, allowed me to take time out for doctor appointments. All of those sorts of things...I wonder what would happen to people if they didn't have that support. I can imagine you could get so burnt out. I'm just so thankful that I am working for a great company.”

Individuals who found that work meant a place to obtain resources (e.g., financial support, insurance, or flexible working arrangements) suggested that this meaning of work was more meaningful after diagnosis than before diagnosis; the presence of needed resources motivated them to continue work or to return to work. Hence, I offer the following proposition:

Proposition 2: Finding the availability of critical work-related resources (e.g., financial support, insurance, or flexible working arrangements) as an EMW, will increase employee engagement.

It is not surprising that participants frequently referenced resource importance as a meaning that became more critical after diagnosis. Research on meaning of work suggests that scarcity or criticality of resources, the extent to which they are needed, can change one's

meaning of work from being more about intrinsic rewards to extrinsic rewards and resources (e.g., Hasan, 2004). The current results suggest that the criticality of resources can spark one to find resources as meaningful. As previously mentioned, meaning of work is more than just tangible resources (e.g., a paycheck; Morse & Weiss, 1955). However, current conceptualizations may not take into account those who face barriers to work. As suggested by JD-R researchers (e.g., Demerouti, et al., 2001), having adequate resources at work to manage demands is crucial for engagement. I propose that the availability of resources that are perceived as an important meaning of work will lead to engagement.

Normalcy

Another category that emerged was normalcy, whereby participants reported that work represented healthy, normal functioning, and/or the protection of their previous identity prior to diagnosis. Those who reported finding normalcy as a NMW considered work to be central to a healthy life; work represented healing and recovery. Additionally, those who reported that work now meant a return to one's previous identity (i.e., an identity not dominated by his/her cancer diagnosis) suggested that work was doing what was 'normal for oneself'.

Normalcy was a prominent theme in the data; 50% (n=6) of participants suggested that after diagnosis work represented protecting one's 'normal' identity and/or returning to healthy functioning. Participant 6 commented on the importance of returning to work specifically in terms of maintaining his identity. "[My business is] definitely fulfilling because you can put together projects and with the projects you can see people smile because the project comes together. That's the best thing about my business. So that didn't change. But what did change was that I thought OK- I have got to work because that's what I do! And the cancer isn't going to get in the way of what I do!"

Participant 4 exemplified the normalcy with the following statement: “Well, the goal is to heal, you definitely want to return to *normal*. I wanted so desperately to return to *normal* and to heal. And so work is part of that healing and *normality*. It’s not just dealing with the body physically but also psychologically and at your performance at work.” Participant 6 also noted feeling a sense of gratitude to maintain work after diagnosis; to maintain what he considered an active and healthy routine, “I wanted to go to work because I wanted to maintain that routine and I was allowed to stay active and healthy. I got really lucky to go to my work after my diagnosis.”

Normalcy served as yet another positive and motivating meaning of work; participants who found normalcy as a NMW reported that it was positive, as it was a return to one’s identity and moving towards healing in the face of diagnosis (all perceived as positive directions). Thus normalcy was a desired state; participants suggested normalcy motivated them to work and return to work at full capacity. Therefore, the following proposition is offered:

Proposition 3: People who find normalcy as a NMW (where work represents maintenance of one’s identity and a return to a state of well-being) will experience engagement in their work.

The emergence of normalcy as a NMW after diagnosis is consistent with previous research on cancer survivors and meaning of work. That is, Peteet (2000) found in a series of interviews with cancer survivors that they reassigned meanings of work with respect to normalcy. Survivors discussed that work meant a return to normalcy and an important part of their identity that needed to be retained after diagnosis. It is not surprising, therefore, that this category was motivating. In support, self-determination theory (Ryan & Deci, 2000a) suggests that people have identified motivation when they deeply value a task and that task becomes personally relevant. In this case, work is the task that becomes personally relevant. This theory

further purports that people are inherently driven to achieve health and well-being, and maintain the integrity of identity (Ryan & Deci, 2000b). Thus, pursuing tasks that are deeply important because they represent well-being and the protection of their identity will be highly motivating. Proposition 3, therefore, suggests that individuals who find normalcy as a new meaning of work will immerse themselves in their work, becoming engaged.

Altruistic Avenues

Another prevalent category (50% of participants noting this category, n= 6) that emerged from axial coding was finding altruistic avenues as a NMW. Altruistic avenues refer to experiences or routes to helping others in the work context (i.e., volunteer opportunities or new career avenues that are potentially more altruistic).

In this category, individuals discussed that their diagnosis served as a catalyst to find more meaning in work through altruistic avenues at work. Individuals reported that work became a place where altruistic work was possible. Participant 6 eluded to how the diagnosis served as an inspiration to help others both inside and outside of the work context, “I like helping people and seeing them smile and I've been told by several people especially after I've had cancer that I'm an inspiration. I like to hear that. I want to be an inspiration to those I work with having survived cancer and having gone through this. It is humbling at the group- I lost three members from the same cancer that I had in the past several years and I feel like I need to be out there so that I can be inspiring for people inside and outside of work.” It should be noted that for this quotation, there was conceptual overlap between the altruistic avenue and relationship categories. As such, I coded this experience (and others like it) under *both* relationship and altruistic avenues categories.

Other participants pursued new projects at work that were altruistic. Participant 2, a psychologist by trade, discussed one altruistic avenue that he pursued after diagnosis: “I developed a non-profit for people facing cancer [as part of my work]...That gave me a lot of exposure to be with people who were very appreciative to experience this support group. My own personal experience with my first diagnosis [sparked my interest in developing this program]... It has been tremendously rewarding and meaningful. Sometimes people find out what I do [and ask] ‘well isn’t it depressing to be around cancer patients?’ Well not really- it’s actually the opposite; it’s kind of exhilarating to be around people who are learning what is most important in their lives. Whenever I’m around people who are doing that, it reminds me of my own journey [with cancer]...Again I feel so lucky to be able to do that.”

Like Participant 2, Participant 7 found herself becoming more involved in what she considers to be altruistic work in her organization, “I became more involved with our [corporate social responsibility] projects that our company has. I found *avenues* for doing things at work that matter to me. Our company recently supported American Cancer Society relay for life, which I worked on and our company donated a good deal of money for the relay and we had several corporate responsibility programs that I've been behind and supported.”

Importantly, 100% (n=6) of the participants who found that work now meant a place for pursuing altruistic avenues in life, stated that these were cancer-related avenues. Specifically, participants who pursued altruistic avenues in the work context after diagnosis initiated conversations with others (including supervisors, coworkers, and patients) in efforts to help others cope with cancer and/or got involved with formal programs (e.g., led cancer support groups or social responsibility programs at work). Moreover, these participants felt invigorated and motivated by such altruistic avenues. When given the opportunity to pursue altruistic

avenues at work and supported by the organization to do so, participants felt more positively towards their organization. As such, I offer the following proposition:

Proposition 4: Those who find altruism as a NMW, where work becomes an opportunity to pursue desired altruistic avenues will experience employee engagement.

In recent research on post-traumatic growth, findings suggest that after traumatic experiences or during times of duress, people sometimes become involved in helping or altruistic behaviors which can be a positive coping mechanism (e.g., Staub & Vollhardt, 2008). Though this research has largely focused on victims of abuse, the authors suggest that the experience of suffering motivates people to help others who are suffering. Likewise, I propose that finding a NMW that includes seeing work as an opportunity to help others will lead to positive outcomes, namely engagement.

Priority Change

Priority change, the shifting of what is important in the context of one's life, is yet another category that emerged as a prominent category (41.67 %, n=5). Participants indicated that they found work took a lesser priority in their lives after diagnosis, as compared to the priority it received prior to diagnosis. Priority change also includes re-conceptualizations of the importance of work-life balance. Many participants suggested that maintaining work-life balance became more important after diagnosis compared to what it was before diagnosis.

Participants suggested that they readjusted what work meant in the context of maintaining work-life balance. Participant 7 illustrated the experience of separating work-life from personal-life after diagnosis in the following statement: "there's a point when I went to the emergency room and the doctor said you know you could die. If you don't take care of this you are going to

die. So you don't think about this appointment that you have to do or that you have all these tasks to do. Work is work and it's totally separate from my personal life now. Before, work was my life. Now it is separate from my personal life.”

Participants also noted that work became a lower priority after diagnosis in the overall context of their whole life, as opposed to just one aspect of their lives. For example, Participant 8 offered, “[The diagnosis] caused me to look at work with a different perspective. Work is going to be there tomorrow. It’s kind of changed the urgency of getting the work done...Because you stop and you think about it when you are diagnosed. What are you going to do, you know? I don’t want to work my life away. I’m not going to miss out on life because of work.”

Those who mentioned priority changes did not suggest that reappraising the meaning of work in terms of the priority it took in one’s life was demotivating. Instead, I found evidence of the contrary. For example, Participant 2 said: “there is more to life than work...Work is really important but it’s just not on the top for me [anymore].” Thus, Participant 2 suggested that while priorities changed, he was still immersed in the work when at work: “ after diagnosis I got to be really in it when I was working. I got to be in my work in a more free manner.”

Though individuals in this category noted that work became less important, participants also said that this resulted in a clearer distinction between work and home life, and that this change allowed them to participate in work more “freely”. It is possible that creating a clear distinction between work and home life allowed these individuals to feel less harnessed by work and be more freely immersed in work while at work (and removed from work while during non-work activities). Proposition 3, therefore, suggests that priority changes allow people to separate work from non-work in an adaptive and engaging manner. As such, I offer the following proposition:

Proposition 5: People who find work as less of a priority relative to non-work and feel that this priority means a greater balance between work and life will experience engagement in work.

This proposition is supported by recent research in engagement, suggesting that work-life balance can promote engagement while at work, as balance is seen as a resource in the JD-R model (Halbesleben et al., 2009). The logic here is that when people feel greater balance between work and home life they can be truly immersed in their work while at work, and also have adequate non-work down-time or time to cognitively, emotionally, or physically recover from the demands of working.

Distraction

Distraction was one of the categories that emerged during axial coding. Distraction is the experience in which one acknowledges that being at work or working on tasks in one's job is a distraction from the diagnosis or various factors associated with being a cancer survivor. All participants talked about finding this NMW, where work became a "*welcome distraction*" from survivorship. Therefore, distraction had a positive valence for participants who reported it as a NMW.

For 16.67% (n=2) of the participants, distraction was a NMW after diagnosis. Participant 6 described feeling a sense of necessity or drive to work as a source of distraction, "I would have a full day, which would last from 6:30 in the morning to 6:30 in the evening. And I had to do that. I did that because I knew I was better off...And if nothing else [working] was to try not to focus on my disease." Participant 3 echoed this theme and further emphasized the positive valence of distraction as a new meaning of work, "Being at work is...a good thing because you aren't so focused on your illness. It's a *distraction*, which is nice."

Distraction also served as a motivator for survivors to work or return to work after a temporary leave. Participant 3 further discussed the positive motivating nature of distraction, “[The distraction] got me going to work, needing to work, motivated to work.” Though only two participants mentioned distraction, their responses suggested that distraction was a positive and motivating meaning of work.

In summary, participants noted finding distraction as a NMW assigned to work, motivating them to continue working in their job or return to work in the event of short-term disability or leave of absence. I offer the following proposition:

Proposition 6: People who find distraction as a NMA (where work becomes or is a positive and welcome distraction) will experience engagement in their work.

This proposition is in line with existing conceptualizations of distraction in the face of some stressor, where distraction is defined as some activity (i.e., work) that requires cognitive effort to get one’s mind off of the stressor (Sandler, Tein, & West, 1994). Sandler and colleagues (1994) note that distraction is an adaptive coping mechanism in the face of stressors (i.e., diagnosis, treatment, or negative symptoms), which can limit the maladaptive outcomes of stressors such as depression and anxiety. More recently, Gonzales, Tein, Sandler, and Friedman (2001) found that distraction moderated the relationship between stress and negative outcomes. Given the adaptive nature of distraction in avoiding maladaptive outcomes, it is possible that becoming totally immersed in one’s job (i.e., being engaged) can serve to avoid the strain associated with cancer-related stressors. In the context of this study, finding distractions as a new meaning of work may serve as a resource to help individuals cope with the cognitive, physical, and emotional challenges associated with diagnosis.

Interference

Interference, or the acknowledgement that that one's diagnosis, symptoms, and/or treatment hinder one's working ability and/or performance was the most prominent category in the data. Of the participants, 91.67% (n=11) discussed interference in the interviews. Interference was not, however, a "meaning of work". Instead, interference refers to the experience of one's diagnosis, treatment, or symptoms hindering working ability and/or performance. This category is further comprised of the following sub-categories: physical interference, cognitive interference, emotional interference, and energy interference. For example, if an individual experienced emotional interference, this would suggest that his or her diagnosis, treatment, or symptoms had an emotional impact, and that emotional impact hindered his or her ability to work (i.e., actually go to work) or perform (i.e., actually do one's working tasks).

When posed with the interview probe: "Tell me how, if at all, your view of your job changed after your diagnosis", participants suggested that interference represented a source of confusion and uncertainty. For example, Participant 11 responded to this prompt with, "...it was really confusing because you don't know what you are going to go through and what's going to happen and how long it's going to take and how your body is going to respond. It was hard for me to keep my head on straight...Work started to be about...that my cancer could *interfere* with my job."

Participants largely mentioned that interference was as an aspect of cancer that negatively affected their ability to work after diagnosis. For example, Participant 4 discussed her experiences during chemotherapy, "The only time I really took off from work were the days when I had to go in for my chemo treatment because that lasts hours- and after I'd be completely shot. And then usually a couple days after the treatment you have a crash day and that's when I

would be really exhausted so I probably used to take one day out of the week for that- one day where I would just have to sleep.” Many participants shared this theme: the effects diagnosis, treatment, or symptoms had on their working ability.

Somewhat surprisingly, despite the negative nature of interference making work more difficult, no participants suggested that interference was demotivating. Given the negative impact on perceived working ability, and interference as a source of uncertainty, I assumed that interference would have a negative impact on work engagement, limiting psychological availability and vigor. However, it is possible that other positive factors at work act to buffer that negative effect. As such, I offer the following proposition:

Proposition 7: Interference will reduce employee engagement in the absence of positive meanings of work.

Though no participants suggested that interference reduced a drive to work and continue to work, other positive meanings may have served as resources that buffered the effects of demands on engagement. One participant noted, “My treatment cut my energy level enormously. When I was with that company I didn’t have the energy to do much so I worked with them after a three-week leave and [the organization] let me come back on a part time basis and did mostly administrative work. So I’d work for 4 hours, come home and sleep for 4 hours, have supper and then go back to bed...but whatever I did needed to count. To be present in myself, my work, and my relationships.” This comment suggests that although interference was salient in his job and made work more difficult, other resources (e.g., the organization offering flexible work solutions) were in play that may have helped him stay working, allowing him to stay present and motivated in his working role. Proposition 7 is undoubtedly similar to the JD-R model for

engagement (Bakker & Schaufeli, 2007), where demands were buffered by positive resources (in this case positive meanings assigned to work).

CHAPTER 4: DISCUSSION

The purpose of this study was to understand meaning of work and its relation to engagement by examining how cancer survivors appraise the meaning of work and find meaningful work given their challenges. The results of the study suggest that after diagnosis survivors reframed or reappraised the meanings they found in work, which were positive. The results also suggest that positive meanings served to motivate participants to work or return to work, which has implications for employee engagement. Additionally, one category, interference, though not a “meaning of work”, was notable in the context of engagement. I developed seven propositions associated with the meanings survivors reported assigning to work, interference, and employee engagement. The following discussion will expand upon these findings and propositions.

General Discussion and Theoretical Implications

By interviewing cancer survivors, people who face many barriers to engagement, the current study adds to our understanding of how individuals attribute meaning to work, which has implications for how they may stay engaged in their jobs. Survivors reported reframing and reappraising meaning of work after diagnosis, finding both NMW and/or finding EMW in meanings that were previously important (e.g., resources, relationships, and priorities). These meanings were helpful in maintaining and/or promoting motivation to work, and return to work, which has implications for engagement.

Open and axial coding revealed that survivors experienced change or found the following meanings of work after diagnosis: *relationships, resources, normalcy, altruistic avenues, priority change, and distraction*. Thus, people can simultaneously view their work as some combination

of the following: a source of important relationships, a place that provides needed resources, a return to normalcy, a domain to seek altruistic avenues, one element of life in need of balance with others (i.e., priority change), and a source of distraction.

The positive meanings were also related to motivation, suggesting that finding more positive meanings of work can spark one's motivation for work. I relied on this finding to make conclusions and propositions regarding engagement. For example, self-determination theory proposes that people's need for intrinsic motivation promotes work engagement. Meyer and Gagne (2008) suggest that the underlying psychological needs identified in self-determination theory, namely autonomy, relatedness, and competence, can also be used to understand one's drive for employee engagement. Hence, finding *new or enhanced positive meanings of work* may be a form of relatedness or other key element of one's drive for self-determination, resulting in engagement.

I found support that meanings assigned to work play an important role in motivating one to work and return to work, for individuals facing high barriers to work. This reassignment of meaning adds to our understanding of what fosters employee engagement, in that meaningfulness or meaning of work is a predictor of engagement (Kahn, 1990). In Kahn's conceptualization, work interactions (relations at work that reflect self-respect, self-appreciation, value, professionalism, and personal features) are important in promoting meaningfulness, and subsequently, engagement. The results of this study support this assertion, as finding work as an opportunity to have meaningful interactions with others was the foremost positive meaning in the final categories of meaning.

The study findings are also closely linked with the JD-R (Bakker & Schaufeli, 2007). Though JD-R research has seldom examined the non-work related demands that may detract

from one's engagement, the findings from this study suggest it is possible for meanings to serve as resources that help buffer the personal demands someone is facing, allowing them to feel motivated in their job. Meanings such as priorities or relationships were consistent with this model, whereby these positive meanings of work (i.e., meaningful work) may act as resources that mitigate the demands associated with participants' diagnosis. Hence, the current study extends the JD-R by offering another powerful job resource that fosters engagement.

Further, many participants commented that interference was notable after diagnosis and made work difficult. However, for those who suggested that interference made work more challenging (reducing vigor), none mentioned that interference was demotivating. I therefore proposed that interference might make work more difficult when not buffered by adequate positive resources (e.g., positive meanings of work). Such a proposition is consistent with the suppositions of the JD-R.

The categories that emerged in the current study also reflected that people's work became more personally relevant (e.g., work became more relevant to fund needed treatments, to get needed support, help people with similar afflictions). This finding is similar to concepts in self-determination theory (Deci, 1975; Ryan & Deci, 2000a); individuals who experience identified motivation (valuing a goal or task which becomes personally relevant) might become more engaged (Ryan & Deci, 2000a). These findings further suggest that when work is personally relevant, people derive more meaning from it, which serves as a strong predictor for engagement. That is, personal relevance may be a moderator in the prediction of engagement. To date, no theories or studies have examined meaning in this depth. Thus, this study makes an important contribution to understand the antecedents of engagement.

One notable finding, that survivors engage in a kind of *reappraisal* of meaning of work, is worth additional discussion. Similar to constructs like vocational calling and attitudes, researchers have found support for the stability of meaning of work over a lifetime (i.e., meaning of work does not change much; Harpaz & Fu, 2002). However, it is possible that those experiencing profound cognitive, emotional, and physical challenges when working often reframe meaning of work. The results of this study do not suggest that survivors completely changed their meaning of work. Instead, participants reported finding small but significant changes in their conceptualizations of meaning of work (some finding entirely new meanings of work and some reporting increased importance of some positive meanings), and certain meanings became more important than before diagnosis. All participants reported some attitude *change* in respect to what work meant to them. The implications of these findings are that meaning of work may not be as stable a construct as once thought. Given certain personally relevant circumstances, the meaning of work can change.

As previously mentioned, cancer survivors often participate in a search for personal meaning after diagnosis (O'Connor, Wicker, & Germino, 1990). Park (2010) suggests that this meaning making is especially common in the event of a stressful life experience, which can result in a global change of meaning. The results of the current study are consistent with this claim, but extend it to the work context. Thus, after diagnosis, survivors reported changing the meaning of work or what work signified.

Meaning making is rooted in the reappraisal and reframing literature (Park & Folkman, 1997). This study results show that cancer survivors reappraised or reframed their work to some extent after diagnosis and *found* new meanings and reported finding that some meanings became more important. In a longitudinal study of breast cancer survivors, Sears, Stanton, and Danoff-

Burg (2003) found that nearly 85% of participants reported some perceived positive outcomes associated with being a survivor. Survivors in their study also engaged in positive reappraisal coping, a positive coping strategy. This reappraisal coping predicted subsequent positive reappraisals related to finding deeper relationships. Thus, the authors' findings are consistent with the current study, in that the most prominent positive meaning of work was relationships. Further, the act of partaking in meaning making fosters engagement in and of itself, perhaps because it is a positive coping mechanism and positive coping mechanisms have been Reappraising demands positively as a means to cope with demands has been associated with engagement (Crawford, LePine, & Rich, 2010; Sears et al., 2003).

The meaning categories that emerged advance our understanding of the NMW or EMW that cancer survivors make of work. Previous research (e.g., Peteet, 2000) suggests that survivors create new meanings of work related to normalcy and identity. The current study extends this work by showing that not only are normalcy and the desire to protect one's identity (both captured in the current study's category *normalcy*) meanings, but individuals found additional meanings of work after diagnosis. By examining survivors' meaning of work, the current study advances the literature by extending the number and kinds of meanings that function as positive coping. In addition, by identifying work as a coping mechanism itself, when work was reappraised as positive (i.e., meaningful), this study furthers the occupational health literature and study of health and well-being at work.

Importantly, although the current study focused on cancer survivors as the sample, the purpose of the study was to understand whether and how engagement occurs when the optimal conditions fail to exist for maximal cognitive, affective, and physical engagement. The implication of the study findings to employees who are not cancer survivors is that if NMW or

EMW identified by cancer survivors empowered them to be motivated to work (and most likely experience high engagement), imagine what finding new meanings can do for those who are not otherwise cognitively, affectively, or physically challenged by outside demands or severe life stressors. These findings suggest that it might be possible for employees to foster and trigger their own engagement, rather than just rely solely on an organization to offer the right resources or the optimal work conditions to trigger the right psychological conditions for engagement.

Limitations

Perhaps the four most salient limitations of the study are: 1) the small sample size, 2) the reliance on participants' memory of retrospective experiences and attitudes, 3) the reliance on only employed cancer survivors, and 4) the absence of member-checking in methodology. The sample size of this study (N=12) may be perceived as a relatively small sample for qualitative study. My initial goal was to collect data from 20-30 participants, following Miles and Huberman's (1994) recommendations for grounded theory interview studies. Despite the smaller-than-planned sample size, monitoring of theoretical saturation using grounded theory methods (i.e., memo writing) allowed me to determine when data collection was complete (Charmaz, 2006). After 7 interviews, I felt I had theoretical saturation. However, as it was far below the initial data collection goals, I continued and collected five more interviews. These subsequent interviews did not challenge any of the emerging theory or patterns, nor did new categories emerge. Therefore, I determined that data collection was complete after the addition of the five subsequent interviews. It is impossible to know if another category or new pattern would have emerged in even more interviews. However, given early theoretical saturation and the use of conservative conclusions (e.g., propositions which serve as hypotheses for future studies), the current study serves as an excellent starting point for future quantitative research.

The very nature of propositions suggests that generalization cannot be accomplished by interviewing only 12 survivors; propositions drawn from these initial findings can be used as evidence for future direction of study at a broader scale (i.e., using initial qualitative findings to inform future quantitative studies).

I relied on study participants' retrospective attitudes regarding work. Although all participants were currently working, many of the questions posed in the interviews prompted interviewees to discuss the immediate days, months, and years following diagnosis. Given that time since diagnosis ranged from 1 to 19 years, many survivors had to recall periods of time from several years ago. According to some researchers, retrospective memories of events, behaviors, and attitudes can be highly inaccurate (e.g., Bernard et al., 1984).

The limitation of relying on retrospective attitudes regarding work inhibited my ability to make direct connections between meaning and engagement, as participants were not able to recall states of feeling engaged. However, participants often discussed motivation to return to work, or motivation to continue work. It is possible that individuals interpreted engagement as motivation. It is also possible that feelings of motivation were more salient at the time for survivors as opposed to employee engagement, and therefore more easily recalled. A statement from Participant 2 exemplifies this issue, "to be honest, I really can't remember a moment or a specific time feeling engaged or not engaged. That was a while ago." It is my hope that future research will be able to assess levels of employee engagement with participants who are more immersed in treatment, and received diagnosis within a year. Therefore, for the purpose of my study, retrospective feelings of motivation informed my propositions regarding engagement.

By relying solely on employed participants, the work attitudes of the participants may be slightly biased. That is, if I were to interview non-employed participants who were employed

during the time of diagnosis, perhaps I would have captured other attitudes about work than those revealed amongst the 12 interviewed in the current study. Further, the participants I interviewed were highly motivated to continue work or return to work after brief leaves for treatments. It is possible that individuals who retired from work or did not return to work have inherently different attitudes about work that may or may not change after diagnosis. Future research might include non-working populations to address this possibility.

A last limitation of this study was the absence of member-checking, a method used in qualitative methodology to ensure rigor. Member-checking involves contacting participants regarding responses they made in the interviews. This is a method of checking the assumptions made in coding. That is, member-checking answers the question: have I interpreted this statement correctly? I was not able to conduct member-checking due to the sensitive nature of the population, information shared about medical status, and previous treatment. Given that I agreed to delete identifying information immediately after uploading audio files to my computer and transcription, I was not able to contact specific participants after this stage. To address this issue, and ensure methodological rigor, I employed numerous individuals to check my assumptions and found high agreement between raters' and my own interpretations.

Practical Implications

Participants noted the importance of many resources in the organization became EMW after diagnosis. Given that most of these meanings resulted in implications for motivation to continue work or return to work, organizations interested in retaining talent who happen to be survivors or facing adversity outside of the work domain should consider the importance and significance of these meanings. Specifically, organizations may facilitate the development of

new meanings of work by providing various resources upon which employees can draw, similar to those noted by the participants of this study.

Survivors noted getting involved in corporate social responsibility (CSR) ventures that served as altruistic avenues and reinforced positive attitudes about their organization. CSR refers to one way corporations demonstrate corporate culture through activities, policies, or organizational decisions that show a sense of social and environmental responsibility (Rupp, Ganapathi, Aguilera, & Williams, 2006). Activities such as supporting employee volunteerism (e.g., matching donations for employees or hosting volunteering efforts) may increase positive attitudes and behaviors among employees who are reappraising meaning of work after or during a stressful or traumatic experience, not to mention providing the organization with benefits as well (e.g., positive CSR image).

As previously mentioned, relationships were crucial in promoting motivation to work and to continue work. Organizations interested in retaining talent who may be experiencing personal duress should encourage employees in general to support each other despite adversity, as organizational support is related to numerous positive outcomes (Rhoades & Eisenberger, 2002). Further, with respect to tangible resources to provide survivors, many survivors noted the importance of flex-time and flex-space to account for doctor's appointments and sick days in enabling continuing work. Organizations should provide flexible-working solutions to employees in general, when possible, but importantly to employees who are motivated by their work (i.e., engaged) but have personal challenges that make work at time difficult.

Additionally, the findings of this study and subsequent studies on meaning of work and engagement for cancer survivors may have practical implications for oncologists, oncology centers, and cancer-related support groups. Given that positive meanings are adaptive, this

information is valuable for survivors. People who work with survivors and help survivors navigate their life and work after diagnosis may help survivors by sharing the importance of NMW or EMW after diagnosis.

Future Directions

As previously mentioned, the propositions provide future researchers with a set of hypotheses based on initial grounded theory findings. Future empirical research may test the propositions in the following ways: 1) develop and validate a scale of reappraisal or reframing of meaning of work that can be used for populations where work becomes more physically, cognitively, and emotionally challenging, and 2) quantitatively examine the relationships between meaning of work and employee engagement.

Currently, there are no scales of meaning of work that include elements of reframing and/or reappraisal. In addition, there are no scales of meaning of work that purport to be validated for populations facing profound barriers to work and during situations of duress. A new scale of meaning of work that takes such populations into account could potentially use the dimensions found here, distraction, normalcy, priority change, altruistic avenues, relationships, interference, and resource importance, to examine the ways in which individuals facing barriers to work find meaning of work. This scale may also be useful for less challenged groups, but still those struggling to become engaged, such as those recovering from burnout, job loss or change, or reorganization. By studying meaning with the inclusion of reframing, researchers can study job insecurity or uncertainty, two constructs of significant popularity in today's global market.

Future research might use such a measure to explore the predictive ability of meaning of work with employee engagement. Doing so longitudinally might add to our understanding of the relative stability of new meanings of work and the effect of these new meanings of work on

employee engagement over time. Finally, future research might compare cancer survivors and non-cancer survivors with respect to the relationship of meaning of work and engagement to answer the following empirical question: does duress moderate the relationship between meaningful work and engagement?

Conclusion

The current study found that survivors find and create several *new meanings of work* or find *enhanced meaning of work* after diagnosis and that positive meanings were associated with motivation to work and return to work, hinting at engagement. The initial grounded theory study results were used to provide propositions. Though future research might examine the propositions made, the study findings suggest a non-trivial connection between meaning of work and employee engagement.

Additionally, the current study did not examine engagement itself, but instead pointed a spot light on what has been proposed as an important predictor for engagement: meaningfulness of work. The current study identified that meaning of work is much bigger and more complex than the current definitions. Importantly, by having studied a sample least expected to want to work, the study revealed just how central work can be; people will change work's meaning so that it remains a part of their existence and contributions. Ultimately, these findings contribute to our understanding of what drives engagement during times of duress; reappraising and reframing meaning of work to find *new and/or enhanced meanings of work* serves as an adaptive change in the face of demands.

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APPENDIX A: INTERVIEW SCRIPT

Interview Script

I'd like to thank you for participating in this study. Your participation may increase our knowledge about how cancer survivors navigate their working lives. As a reminder, all of the information that you share is confidential. Further, once you are done sharing this information, your responses will be transcribed and your identity will be removed from the data. Do I have your permission to record this session?

Interview Items for Survivors

Demographics

To start, I'd like to get to know you a little bit better. If you feel comfortable sharing this information with me, I would like to ask you a few questions about you, your work, and your diagnosis and treatment, if relevant.

- a. What is your age?
- b. What race do you identify with?
- c. What gender do you identify with?
- d. What is your current occupation/ job?
- e. How long have you been working in that job and for your current organization?

I would like to remind you that we are not interested in learning specific medical information about you. Instead, we are interested in learning about your diagnosis and it's effect on your life, specifically your work. However, for the sake of our study we do ask you to share a bit about your diagnosis.

- f. What type of cancer were you diagnosed with?
- g. How long ago was that?

- h. Can you tell me a little bit about your treatment? What it is or was?
- i. At what stage are you in treatment now?

Main Items

Thanks for sharing that information. I am now going to move onto the main questions for this interview, regarding your experiences and perceptions at work. As a reminder, none of the information you share with me today will be reported to your coworkers, supervisors, or job.

1. How do you view your job and work in general (e.g., is it a source of income, support, fulfilling, etc.)?
 - a. Tell me how your view of your job has evolved over the course of your career
 - b. Tell me how, if at all, your view of your job changed after your diagnosis
2. Do you find your work meaningful?
 - a. Tell me how if at all your experience of meaningful work has evolved over the course of your career.
 - b. Tell me how, if at all, your experience of meaningful work has changed after your diagnosis.
3. Are you an engaged worker?
 - a. Tell me about a time, before (and after) diagnosis, when you felt engaged in the work that you do.
 - b. Tell me what you think the reason was for feeling engaged
 - c. Tell me what you think the reason was for *not* feeling engaged
4. Do you think your engagement levels changed after diagnosis and throughout treatment and recovery?
5. How, if at all, has your diagnosis impacted your work?

6. What, if anything, helped you work?
 - a. Describe for me ways you think did help
 - b. If you don't feel like anything helped you work, describe for me what you think would have helped you work

Thank you so much for your participation in this project! We greatly appreciate your help.

Again, the purpose of this study was to examine your attitudes and perceptions about work in addition to how your diagnosis might effect (or have affected) or interact with your working life.

(If Phone Interview) I'll be sending over your debriefing form after we hang up. If you can sign this and scan it and e-mail it back to me, that would be great. Again, thank you for your participation- I really appreciate it!

(If In-Person Interview) I'd like you to review and sign the following debriefing form. Please let me know if you have any questions or concerns about your participation in this study

APPENDIX B: CONDITIONAL MATRIX

Category	What/Definition	Consequences/Outcomes	Propositions
Relationships	<p>Participants suggest that after diagnosis relationships at work become more or less important. This included the following subcategories:</p> <p><i>Social Support:</i> Participants in this subcategory highlighted the importance of social support from coworkers, supervisors, or clients.</p> <p><i>Connection:</i> Participants in this subcategory highlighted the need for greater or deeper connection to coworkers and people at work (including clients or customers).</p>	<p>Motivation to continue work;</p> <p>Motivation to return to work</p>	<p><i>Proposition 1:</i> Increased employee engagement</p>

Resource Importance	Participants reported increased importance in need for resources (insurance, money, time off, flextime, working from home) after diagnosis.	Motivation to continue work; Motivation to return to work;	<i>Proposition 2:</i> Increased employee engagement
Normalcy	Participants reported working as a return to normalcy as a means to protect part of one's identity and move towards health.	Motivation to continue work; Motivation to return to work	<i>Proposition 3:</i> Increased employee engagement
Altruistic Avenues	Participants sought altruistic experiences or routes to help others in the work context (i.e., volunteer opportunities, new career avenues that are potentially more altruistic, etc.).	Motivation to continue work; Motivation to return to work	<i>Proposition 4:</i> Increased employee engagement
Priority Change	Participants suggested that work takes a lesser priority in one's life after diagnosis. Priority change also includes re-conceptualizations of work-life balance.	Motivation to continue work in balance with other priorities; Motivation to return to work in balance with other priorities	<i>Proposition 5:</i> Increased employee engagement
Distraction	Participants acknowledged that being at work	Motivation to continue work;	<i>Proposition 6:</i> Increased employee engagement

	<p>or working on tasks is a distraction from the diagnosis or various factors associated with being a survivor. In this context, work is a "welcome distraction" from survivorship.</p>	Motivation to return to work	engagement
Interference	<p>Participants acknowledged that diagnosis, symptoms, and/or treatment interfere with one's working ability and/or performance. In this category are the following sub-categories:</p> <p>Physical Interference: Participants reported that cancer makes work more physically challenging because of surgery, chemotherapy, radiation, or symptoms of the disease itself.</p> <p>Cognitive Interference: Participants reported that diagnosis, treatment symptoms, etc. impeded cognitive performance</p>	<p>Low psychological availability; High demands</p>	<p><i>Proposition 7:</i> Reduced employee engagement in the absence of meaningful work.</p>

Emotional Interference: Participants

reported that diagnosis, treatment, or symptoms caused emotional stress, anxiety, strain, or depression, which interfered with work.

Energy Interference: Participants reported that diagnosis, treatment, or symptoms interfered with normal energy levels, making work difficult.
