

Intersectionality and Control: Implications for Health Outcomes

by

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DEDICATION

To the millions of Americans without health insurance trying to survive in a health system of injustice and oppression.

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ABSTRACT

Perceived control—a psychological mechanism— is conceptualized as an individual-level perception, in which events in one’s life are within one’s control. Across multiple domains, perceived control is regarded as a protective psychological mechanism and is generally associated with positive outcomes. Despite the importance of this research, there are several significant gaps in the perceived control literature that I address in my dissertation, in the context of health.

In Chapter 2, I examine the impact of perceived control within a sample of women undergoing surgery. These women were given clinical suspicion of having gynecological cancer. There is little work examining the link between perceived control and psychological health, especially for women undergoing cancer surgery. I consider the importance of the medical context, specifically the diagnosis, route of procedure, and the fact that patients have no behavioral control in the context of surgery. I find that increased perceived control was related to better preoperative psychological health, through a reduction in negative affect. I conclude the chapter by discussing the implications of these findings in the context of improving women’s health.

In Chapter 3, I challenge the explicit and implicit notion in the extant literature that all women’s perceptions of control are homogenous. To address this, I use data from The Study of Women’s Health Across the Nation (SWAN) and conduct an exploratory longitudinal analysis of perceptions of control over approximately 10 years. Results in this study suggest that important

differences by race/ ethnicity of women exist. Hispanic women fared the worst, because on average their perceived control significantly decreased over time. Hispanic women may be at a health disadvantage as they age. I conclude this chapter by discussing the implications of my found patterns in the context of health care disparities.

In Chapter 4, I examine if control can be influenced by the nature of the interpersonal environment. I use a qualitative study to examine how experiences of incivility in a hospital context impact individuals' perception of control. In a survey, participants were told to write about an experience of incivility they experienced in a hospital and then mention if this event impacted their sense of control. I use interpretative phenomenological analysis to analyze participants' text responses. Results suggest that interpersonal mistreatment shapes one's sense of control in various ways, and these may have long-term implications.

In Chapter 5, I discuss the overarching findings across all three studies, including the ways in which perceived control influences a number of health outcomes, functions across time, and how perceived control can be interpersonally constructed. I also provide important critiques to the general perceived control literature. First, it is necessary to integrate an intersectionality perspective in the study of perceived control. Women of color are systematically ignored in the literature, and this harms our understanding of perceived control. Second, researchers need to seriously consider how conditions of respect can influence perceived control. Perceived control is not simply a stable individual-level variable, rather it is much more dynamic and interpersonally constructed than originally theorized. Together it is necessary that future researchers critically engage with the construct of perceived control to help deepen our understanding of the construct.

Keywords: Perceived control, intersectionality, psychological well-being, physical well-being

CHAPTER 1

Introduction

Perceived locus of control—also referred to as perceived control— is a psychological mechanism that has its roots within social learning theory. Perceived control is conceptualized as an individual-level difference, in which events in one’s life are perceived to be within one’s control (Rotter, 1954; Wallston, Wallston, Kaplan, & Maides, 1976). Researchers have identified perceived control as a multidimensional construct (e.g., Millar & Shevlin, 2007). Specifically, it was first believed that one had either an internal locus of control (i.e., is within the individual) or an external locus of control (i.e., control is outside of the individual) (see Luszczynska & Schwarzer, 2005).

Historical Origins and Applications

These original ideas were refined further, resulting in two subdimensions for external locus of control (i.e., powerful others, and chance) (Wallston et al., 1976). Since then, additional subdimensions or scale modifications have been incorporated into the literature. These include the brief versions of the scale (Pudrovskaya, 2015; Sapp & Harrod, 1993), more expansive subdimensions including luck, and helplessness (Millar & Shevlin, 2007), and God as a subdimension (Welton et al., 1996). The original scale of control has also been applied to specific to army-related outcomes (Hunter & Stewart, 2009), fetal health locus of control beliefs (Soliday, Strahm, & Mammenga, 2016), career outcomes (Bolkan Goodboy, & Daly, 2010; Creed, Doherty, & O’Callaghan, 2008; Guan et al., 2013) sex role attitudes (Rost, Neuhaus, & Florin, 1982), and interpersonal perceptions of control (Cook, 1993). It has also been used

specifically for high school students (Wang & Su, 2013), and medical residents (Schutte et al., 1992). This vast variability in the conception of perceived control measures demonstrates the expansiveness of the perceived control literature. In particular, there is a substantial body of literature on perceived control in the context of health, work, education, and community/government among others.

Perceived Control in Health and Medicine

Years of research has found that perceived health locus of control— a variation in the term ‘perceived control’—is predictive in understanding individuals’ engagement in a variety of health behaviors. Specifically, individuals with higher internal locus of control are likely to believe that their health is within their personal control. Conversely, individuals with lower locus of control believe that their health is a function of external factors, and attributable to chance or luck. An expansive body of literature has identified key relationships between internal locus of control on individual engagement in health-enhancing behaviors.

For example, individuals with high perceived control are more likely to engage in positive health promoting behaviors (Kirscht, 1972; Norman et al, 1998). Typically, these individuals are significantly more likely to adhere to doctor’s recommendations (Barlow, Macey, & Struthers, 1993; Bellini et al, 2011; Leong, Molassiotis & Marsh, 2004; O’hea et al, 2005), and maintain a healthy diet, (AbuSabha & Achterberg, 1997; Grotz, Hapke, Lampert, & Baumeister, 2011; Strudler Wallston & Wallston, 1978; Wallston et al, 1976;). Given the link between perceived control and health-promoting behaviors, research has expanded this to see which health outcomes are associated with perceived control. Further, this relationship has been expanded to understand perceived control’s relationship across a variety of conditions.

In particular, extensive research has examined perceived control in the context of pain maintenance, in both the short-term (e.g., pre or postsurgical) (LaMontagne, 1984; Pickett & Clum, 1982), and the long-term, (Arraras, Wright, Jusue, Tejedor, Calvo & 2002; Coughlin, Badura, Fleischer, & Guck, 2000; Crisson & Keefe, 1988; Gustafsson & Gaston-Johansson, 1996; Härkäpää, 1991; Lipchik, Milles & Covington, 1993). Perceived control has also been thoroughly examined over a variety of physiological health conditions, including health after surgery (Burker, Eon, Galanko, & Egan, 2005; Kugler et al., 1994) in individuals with type 2 diabetes, (Trento et al., 2006), among patients with an HIV positive diagnosis (Préau et al., 2005), and those with spinal cord injuries (Frank & Elliott, 1989; Shadish, Hickman, & Arrick, 1981). Further, perceived control has been investigated in the context of individuals with various cancer diagnoses (e.g., Andrykowski & Brady, 1994; De Valck & Vinck, 1996; Henderson & Donatelle, 2003; Lin & Tsay, 2005; Marks, Richardson, Graham, & Levine, 1986).

Perceived control has also been investigated in the context of psychological health, but not expansively. For instance, researchers have focused on populations with significant psychological health conditions, including individuals with schizophrenia (Cash & Stack, 1973; Duke & Mullens, 1973), individuals with psychiatric conditions (Levenson, 1973), and individuals with epilepsy (Gramstad, Iversen, & Engelsen, 2001; Stone, Binzer, & Sharpe, 2004). Further, researchers have focused on clinical manifestations of psychological health conditions, such as depression (Benassi, Sweeney & Dufour, 1988; Birchwood, Mason, MacMillan, & Healy, 1993; Christensen, Turner, Smith, Holman, & Gregory, 1991). Across the body of literature connecting perceived control to health, the overwhelming consensus is that higher perceived control (i.e., greater internal perceived control) is regarded as a protective psychological mechanism, that is generally associated with beneficial health outcomes.

Perceived Control and Work

Perceived control (also referred to as work autonomy in the organizational literature research) has also been applied into the context of work. Perceived control has been established as an important factor in relation to turnover intentions (Ng & Butts, 2009). Another two studies found similar findings, such that higher perceived control was associated with lower levels of work overload and interference (Duxbury, Higgins, & Lee, 1994), as well as a decrease in negative consequences associated with balancing work, family, and life (Thompson & Prottas, 2006).

Extending from the original body of literature on perceived control and health, the literature on perceived control and work has also found that higher perceived control is associated with positive mental and physical health indicators. Ooore and colleagues (2010) found that decreased perceived control was related to worsened mental and physical health symptoms, however the strength of this relationship was greater among individuals that experienced incivility (i.e., mistreatment) from their coworkers. A critical meta-analysis examining autonomy found that higher values of perceived control (ie., autonomy) were associated with lower levels of negative physical symptoms, emotional distress, and role stress (Spector, 1986). This relationship remains consistent, even among individuals in higher stress jobs, including urban public transit operators (Evans & Carrère, 1991).

Perceived Control and the Community

Perceived control has also been investigated in the context of the broader community, including education and government (e.g., Schulz, Israel, Zimmerman, & Checkoway, 1995). Increased perceived control has been linked to educational achievement in samples of students (Stipek & Weisz, 1981). One study found that increased perceived control reduces mortality risk

within individual of low education levels (Turiano, Chapman, Agrigoroaet, Infurna, & Lachman, 2014). In terms of community engagement, one study found that students and residents involved in community organizations reported a greater sense of empowerment, including a greater sense of political efficacy, competence and mastery, and a greater desire for control (Zimmerman & Rappaport, 1988). Perceived control has also been applied to other contexts including caregiving (Bondy & Mash, 1999; Bugental, Blue, & Cruzcosa, 1989).

Summary

Generally speaking, the extant body of literature has found that increased perceived control has been linked to several positive outcomes, thus this mechanism is believed to be a protective factor. Despite the magnitude of the literature, there are several gaps that I aim to address in the current dissertation. First, perceived control has not been thoroughly examined in relation to psychological health outcomes, especially among patients that are women. Second, the perceived control literature severely lacks an intersectional approach to the literature and rarely considers women of color in research studies. Last, the interpersonal environment of the participants is rarely considered in relation to their individual conceptualization of perceived control.

Outline for Dissertation

Therefore, in my dissertation I aim to address several gaps in the literature. In Chapter two, I expand the literature on perceived control by examining how it relates to psychological health outcomes among female patients—an understudied population. Specifically, in my first study I examine the impact of perceived control within a sample of women undergoing surgery with clinical suspicion of having gynecological cancer—a medical condition that exclusively impacts women with reproductive organs— under conditions of surgery in which they have no

individual behavioral control. In the analyses, I consider the importance of the medical context, specifically the ultimate diagnosis and route of procedure. I use a sample of women ($n = 301$), ranging from 40–80 years-old and undergoing inpatient gynecological surgery at Michigan Medicine University of Michigan. I empirically investigate an indirect relationship of perceived control on several health behaviors, through negative affect. This replicates the major findings in the literature. I also expand the extant literature by investigating an indirect relationship to psychological health outcomes, also through negative affect. I conclude the chapter by discussing the implications of these findings in the context of improving women's health, and the nature of patient-provider interactions.

In Chapter three, I challenge the notion in the extant literature that all women's perceptions of control are homogenous. I address the gap of the lack of an intersectional approach in the literature. To address this, I use data from The Study of Women's Health Across the Nation (SWAN) and conduct an exploratory longitudinal analysis of perceptions of control over approximately 10 years. In this, I purposefully include women from multiple racial and ethnic groups because researchers have systematically excluded women of color from longitudinal investigations. I consider the importance of income disparities by controlling for its possible effect on perceived control. In my analysis, I conduct intercept and slope estimations of each racial and ethnic minority group, in comparison to White women—the group with the greatest body of extant literature. I conclude this chapter by discussing the implications of my found patterns in the context of health care disparities between women in the United States.

In Chapter four, to have a deeper phenomenological understanding of perceived control and I investigate how an individual's sense of perceived control can be impacted by the interpersonal environment. Thus, I address the last gap regarding the interpersonal environment

of the participants. To do this, I implement a person- centered approach to examine the phenomenology of perceived control of individuals who were once patients in a hospital context. Specifically, I examine how individual's perceptions of control are impacted by experiences of incivility. Using a qualitative sample of data from an online source (i.e., Amazon Mechanical Turk), I use interpretative phenomenological analysis (IPA) to analyze patterns among participants' responses to the question, "Does this experiences [of incivility] impact your sense of control in the hospital context? Please explain here?". This study uniquely considers how control can be impacted by mistreatment.

While perceived control is an individual level variable, across the papers, I continue to demonstrate its relevance to larger structural level factors associated with health care in the United States. Because the United States has both historical and current racial and gender inequities in healthcare, I incorporate a larger discussion on how these findings could inform future research, and equitable healthcare policy and efforts in the United States.

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CHAPTER 2

Perceived Control in a Sample of Women Undergoing Surgery for Gynecological Cancer

Theoretical Overview

As previously stated, researchers have examined how perceived control relates to various health promoting behaviors. Within this body of research, some studies have focused on examining how perceived health locus of control uniquely impacts health behaviors exclusively for women. Similar to this larger body of research, women with greater perceived control are more likely to engage in health promoting behaviors that are essential to women's health. For instance, women with greater perceived control are more likely to conduct breast-self-examinations (Hallal, 1982), opt into professional cancer screening, and find information about health conditions more than women with less perceived control (Bundek, Marks, & Richardson, 1993; Holm, Frank, & Curtin, 1999; Rowe, Montgomery, Duberstein, & Bovjerg, 2005; Murray & McMillan, 1993a, 1993b). In addition, another significant domain that research has focused on has been cancer, especially behaviors associated with early detection of breast cancer.

Further, a majority of the research on perceptions of health locus of control focuses on health-enhancing behaviors, but little work has examined the ways in which these perceptions may impact psychological health as well. This is largely unknown. Despite the limited body of work, some research suggests that this association exists. One study found that perceptions of control are related to depression in women diagnosed with breast cancer (Bettencourt, Talley, Molix, Schlegel, & Westgate, 2008).

In addition, researchers need to consider the role of context more carefully. It is assumed that in all situations, individuals have the ability and capacity to control their own behavior. Situations in which individuals cannot modify their own behavior are rarely considered. Similarly, it is necessary to pay attention to the larger gendered context in the United States. Research examining physician-patient interactions has found that women are generally worse than male patients (Werner & Malterud, 2003). For instance, women's physiological complaints are not always taken seriously, and this in itself has major health implications. Taken everything together, in the current study I examine the relationship of perceived control to multiple perceptions of psychological health. In this study I focus on a sample of women given clinical suspicion of having gynecological cancer, and who are all undergoing planned surgery.

Psychological Well-Being

Surgery is typically stressful for patients, and years of research have demonstrated the importance of psychological health on impacting subsequent postoperative outcomes. Within the overarching category of psychological well-being, negative and positive affect are two subcomponents. Negative affect is significantly related to negative emotions, psychological distress, depression, anxiety, and a reduction in overall life satisfaction (Diener & Larsen, 1993; Ryff, 1989; Voogt et al., 2005). Research has found that individuals with increased negative affect tend to face more negative postoperative outcomes, including pain, and complications, as compared to individuals with decreased negative affect (Bosch, Engeland, Cacioppo, & Marucha, 2007).

On the other hand, positive affect has been demonstrated to be a significant contributor of psychological well-being (Watson, Clark, & Tellegen, 1988). Individuals with increased positive affect are more likely to have better postoperative outcomes, as compared to individuals with

decreased positive affect. This is because increased positive affect is associated with decreased distress, and subsequently a better physical recovery (Carver & Scheier, 1993; Middleton & Byrd, 1996; Scheier et al., Carver, 1999). The impact of positive affect exists in both the short and long term (Diener & Lucas, 1999). In the short-term, greater positive affect is related to enhanced overall health functioning in patients, including increased immune system functioning (Dillon, Minchhoff, & Baker, 1986; Ryff, Singer & Love, 2004). In the long-term, positive affect is helpful in forming effective coping mechanisms. Developing coping mechanisms is helpful in mitigating stress in future stressful events (Aspinwall, 2001; Fredrickson & Joiner, 2002; Fredrickson, & Feldman Barrett, 2004; Masters & Wallston, 2005; Tugade; Stein, Folkman, Trabasso, & Richards, 1997). Thus, psychological well-being has critical ties to postoperative outcomes.

Unfortunately, there is a scant body of research that has examined the general psychological health of women undergoing major surgery (see Carr, Brockbank, Allen, & Strike, 2006). Specific surgical procedures are exclusively for women; thus, women face a unique set of potential stressors. Research has found that increased levels of preoperative and postoperative anxiety predicted postoperative pain (Carr et al., 2006). Another study suggests that preoperative psychological preparation can help mitigate postoperative anxiety (Wallace, 1984). Given the importance of psychological well-being on postoperative outcomes, in the current study I examine women's psychological health before they undergo surgery.

The Current Study

In the current study, I examine how women's perceived control relate to their perceived psychological health before undergoing surgery. Specifically, I examine a sample of women with clinical suspicion of having gynecological cancer, who are all undergoing surgery. To address

this research question, I first investigate the unexamined link between perceived control and negative affect. I hypothesize the following:

H1: Increased perceived control will be related to negative affect, and this relationship will remain while controlling for the route of procedure (i.e., Laparotomy vs Laparoscopy) and their formal postoperative diagnosis (i.e., Malignant vs Benign).

If this relationship is in fact significant, I further hypothesize a more complicated relationship, in which negative affect will act as a mediator.

H2: Increased perceived control will be related to positive perceptions of mental health through a reduction in negative affect, while controlling for route of procedure and diagnosis.

H3: Increased perceived control will be related to positive perceptions of physical health through a reduction in negative affect, while controlling for route of procedure and diagnosis.

Because perceived control routinely predicts health enhancing behavioral outcomes I further hypothesize the following:

H4: Increased perceived control will be related to positive behavioral outcomes though a reduction in negative affect, while controlling for route of procedure and diagnosis.

Method

The study was approved by the University of Michigan Medical School IRB (IRBMED #2004-0814), and there were no conflicts of interest to report. Women undergoing inpatient gynecological surgery at the Michigan Medicine University of Michigan were eligible to be a potential participant for the study. Women in our sample were referred to the Michigan Medicine hospital after they were given clinical information they were very likely to have gynecological

cancer (including ovarian, endometrial, vulvar, and cervical cancer). The purposes of the surgery were twofold: first to establish a diagnosis (malignant vs. benign). This was formally established and recorded postoperatively. The second was to attend to the unique needs of each woman (i.e., removal of a tumor).

Participants

Women (n= 305) underwent one of three gynecological procedures: Laparotomy (52%), Laparoscopy (46%), or Vaginal surgery (2%). Four patients with insufficient data were removed from all analyses. Therefore, our final sample included 301 patients. Because the minority had a vaginal route of procedure, I created a dichotomous variable of (Laparotomy vs. Laparoscopy) to be used to indicate route of procedure. This was used as the control variable. Research has demonstrated that Laparoscopic route of procedure is significantly less invasive than the Laparotomic route (Shiromizu et al., 2000). Further, invasiveness in surgical procedures been related to discrepancies in psychological health (Nguyen et al., 2001). Therefore, I include procedure type into all subsequent analyses.

80% of the women were between the ages of 41 and 70, and the majority (63.7%) were married or lived with a partner. Most of the women in the sample identified as White (92%), while only a minority (4%) identified as Black/African American, as Asian, Multiracial, or Other (4%). Many of the women completed high school (44%), had full or part-time employment (48%), and a little over a quarter of the sample earned between \$25,000-\$50,000 (26%). At the time of the study, the clear majority 94% of the patients had health insurance, and also had prescription insurance (90%). See table II.1 for demographic information.

Procedure and Measures

Patients who consented were enrolled at the time of their preoperative appointment. The main measures used in the current study, including perceived control, positive affect, negative affect, perceptions of psychological health, perceptions of physical health, health-promoting behaviors, and demographics were collected at that time. All measures were scored by trained personnel involved in the study. The diagnosis was recorded postoperatively. Exactly 76% ($n = 229$) of patients had malignant indication.

It is possible that women experienced differences in their symptoms, or mental health as a function of their diagnosis. They may have also entered the study with different amounts of information about their condition (Northouse, Templin, Mood, & Oberst, 1998). Therefore, these factors may have impacted their psychological health preoperatively, so I controlled for final diagnosis.

Perceived control. To measure control, I used the 11-item Health Locus of Control (HLC) scale (Watson et al., 1976). Participants were presented a 6-point scale from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*), and they rated the extent to which they agreed with a series of control statements. All items were computed into a mean, and greater values indicated high perceptions of control. One of the items from the scale includes the following: “I am directly responsible for my own health”. The items were reliable ($\alpha = .70$). See table II.2 for scale.

PANAS. To measure positive and negative affect, I used the 10-item Positive and Negative Affect Schedule (PANAS)(Thompson, 2007). Patients indicated on a 5-point scale from 1(*Very Slightly or Not at All*) to 5 (*Extremely*) the extent to which they agreed with the scale statements on both the positive affect dimension and negative affect dimension. The five positive affect items were reliable (e.g., Determined) ($\alpha = .87$) and were averaged into a single

measure of Positive Affect ($M = 3.77$, $SD = 0.81$). Higher scores on Positive Affect indicate greater positive affect. The five negative affect items also very reliable (e.g., Nervous) ($\alpha = .85$). These were averaged into a single measure of Negative Affect ($M = 2.04$, $SD = 0.87$). Higher scores on the negative affect dimension indicated greater negative affect. See table II.3 for scale.

12 Rand. To assess negative self-perceptions of physical and mental health, I used the 12-item Short Form-12 (SF-12) (Ware, Kosinski, & Keller, 1996). Participants indicated the extent to which they agreed with various statements regarding their state of physical and mental health. Participants indicated on 5-points scales with different endpoints that corresponded to each question (e.g., 1 = *Not at all*, 5 = *Could do physical activities*). One sample question includes, “How much physical pain have you had during the past 4 weeks?”. Another sample item includes, “During the past 4 weeks, how much have you been bothered by emotional problems?”. Because the scale points were different, all items were standardized (i.e., converted into a Z-score). The 7 items corresponding to the scale of physical health were reliable ($\alpha = .84$). These were averaged into a single measure of Physical Health. Likewise, the 4 items assessing perceptions of mental health were reliable ($\alpha = .87$). These were averaged into a single measure of Mental Health. On both these scales, higher averaged score indicates *greater ailments*. See table II.4 for scale.

Health-Promoting Lifestyle Profile II (HPLP II). To assess the degree to which individuals engaged in health promoting behaviors I used the HPLP II, and participants responded to each item on a 4-point scale, from 1 (*Never*) to 4 (*Routinely*)(Walker, Sechrist, & Pender, 1987). Due to time constraints associated with preoperative appointments, 19 items of the 52 items from the HPLP II were included in the administered survey. These items were

averaged into a single measure of Health-Promoting Behaviors, ($\alpha = .85$). Higher scores indicate greater health-promoting behaviors ($M = 2.98$, $SD = .46$). See table II.5 for scale.

Results

The correlations among the variables are presented in table II.6. Increased perceived control was significantly associated with improved indications of physical health, increased health behaviors. Interestingly this was unrelated to mental health. Greater negative affect was significantly correlated with worse physical health and mental health. In addition, greater negative affect was associated with engaging in fewer health behaviors. I found the opposite pattern for positive affect. Increased positive affect was related to better physical health, better mental health, and increase engagement in health behaviors.

Hypothesis 1: Negative Affect

I conducted a hierarchical linear regression to examine the first hypothesis. There was a significant relationship between perceived control and negative affect. A one-unit increase in perceived control was associated with a .25 unit decrease in negative affect ($\text{adj}R^2 = .02$; $\Delta R^2 = .03$), $F(1, 284) = 3.27$, $p = .02$, ($B = -.25$, $SE = .09$; $p = .005$).

Hypotheses 2–4: Mediation

To examine Hypotheses 2–4 I ran a mediation analysis for each dependent variable to test for a significant indirect effect. I used the PROCESS macro available on SPSS (Hayes, 2012). A significant mediation is only qualified by a statistically significant indirect effect. This does not have to be qualified by a significant total effect (see Preacher & Hayes, 2004, 2008; Zhao, Lynch, & Chen, 2010). I use bias-corrected bootstrapped confidence intervals (CI) calculated on 1,000 samples to assess significance of each indirect effect. For each hypothesis, I first present the test of significance and coefficients for the indirect effect, then the unstandardized

coefficients that correspond to each element of the indirect effect. Finally, the coefficient for the direct effect (see Zhao et al., 2010).

Figure 1 represents the mediation analyses.

Hypothesis 2: Predicting Mental Health

To examine this hypothesis, I ran a mediation analysis (see Figure II.1). There was a statistically significant indirect effect of perceptions of control on a reduction of negative perceptions of mental health, through negative affect, $b = -.13$ ($\beta = -.07$), boot SE = .06, 95% CI [-.25, -.02]. A single unit increase in perceived control was related to a significant decline in negative affect, $b = -.24$, $t(280) = -2.60$, $p = .01$. Holding control constant, a unit increase in negative affect was associated with a significant increase in negative perceptions of mental health, $b = .55$, $t(279) = 11.15$, $p < .001$. The direct effect was not significant, $b = .009$, $t(279) = .12$, $p = .90$. Therefore, I found support for hypothesis 2.

Hypothesis 3: Predicting Physical Health. I found a significant indirect effect of perceived control on a reduction of negative perceptions of physical health, through negative affect $b = -.08$ ($\beta = -.06$), boot SE = .03, 95% CI [-.16, -.02] (see Figure II.2). A unit increase in perceived control was related to a significant decrease in negative affect, $b = -.25$, $t(281) = -2.83$, $p = .005$. Holding control constant, a unit increase in negative affect was associated with a significant increase in negative perceptions of physical health, $b = .32$, $t(280) = 7.20$, $p < .001$. The direct effect was significant, $b = -.19$, $t(280) = -2.85$, $p = .005$. Therefore, I found support for our third hypothesis.

Hypothesis 4: Predicting Health-Promoting Behaviors. There was a significant indirect effect of perceived control on health-promoting behaviors through negative affect, $b = .03$ ($\beta = .04$), boot SE = .02, 95% CI [.007, .07] (see Figure II.3). A unit increase in perceived

control was related to a significant decrease in negative affect, $b = -.28$, $t(279) = -3.15$, $p = .002$. Holding perceived control constant, a unit increase in negative affect was associated with a significant decrease in health-promoting behaviors, $b = -.10$, $t(278) = -3.20$, $p = .002$. The direct effect was significant, $b = .13$, $t(278) = 2.81$, $p = .005$. Therefore, I also found support for hypothesis 4.

Discussion

The purpose of the current study was to examine how perceived control relates to perceptions of psychological health before undergoing surgery in a sample of women with suspicion of having gynecological cancer. In line with our first hypothesis, I found that there was a significant relationship between increased perceived control and decreased negative affect. This first finding suggests that perceptions of health locus of control not only have the potential to impact health promoting behaviors, but rather has direct implications for general psychological health outcomes (AbuSabha & Achterberg, 1997; Berglund et al., 2014; Wurtele et al., 1985). Research should continue to investigate this particular link in both clinical and non-clinical populations across a variety of health-related contexts.

In addition, I found that greater perceived control was related to a positive psychological health variables, including improved perceptions of physical and mental health. Specifically, increased perceived control was related to an increase in psychological health outcomes, through a reduction in negative affect. This relationship remained the same while controlling for postoperative diagnosis and the route of procedure. Within the mediation predicting mental health outcomes, the direct effect was not significant. This suggests that the mediation is consistent with the existing theoretical framework. However, when predicting physical health outcomes, the direct effect was in fact statistically significant. This suggests that other variables

may exist in the model (Zhao et al., 2010). For example, another variable that could be included is physical functioning, or the ability to execute physical activities. Regardless, researchers need to continue examining how other physiological variables and psychological variables may contribute to the model in the current paper in a meaningful way. Up to this point, these findings suggest that general perceptions of mental health are related to individual perceived control.

In addition, I also found that increased perceived control was related to increased health-promoting behaviors through a reduction in negative affect. (AbuSabha & Achterberg, 1997; Berglund et al., 2014; Grotz et al., 2011; Theofilou & Saborit, 2013; Wallston & Wallston, 1978; Wurtele et al., 1985). While I was only able to include 19 of the original 52 scale items due to time restraints, future research should incorporate the full range of items to examine if these results are consistent across the sub-scales of health-promoting behaviors. This significant mediation demonstrates *why* research has found that increased control tends to lead to increase health-promoting behaviors. This provides some evidence that mental health may be a critical factor in that relationship. Researchers should continue to examine this relationship with other psychological health variables, such as anxiety.

The findings from the current study have implications —both preoperatively and postoperatively—for women undergoing surgery. Since increased perceived control is associated with positive psychological health indicators, this may help patients develop effective coping mechanisms prior to undergoing surgery (Stein et al., 1997). Also, this may also prove to be beneficial on postoperative recovery (Bosch et al., 2007). It is also possible that increased perceived control may also help promote other forms of psychological well-being (e.g., reduced stress, reduced anxiety, and reduced depressive symptoms). Further, the relationship between health locus of control and increased likelihood for health-promoting behaviors via affect may

may help women preoperatively by enhancing their likelihood to engage in more health-promoting behaviors prior to undergoing surgery; and they may add to women's overall well-being by potentially contributing to a quicker recovery (Kiecolt-Glaser, Page, Marucha, MacCallum, & Glaser, 1998).

Practice Implications

Focusing exclusively on women's mental health in the context of medicine is essential. Women face a problematic history as patients. Both historically and currently, healthcare professionals are more likely to "write off" women's complaints as psychosomatic or their complaints are minimized. Consequently, women face the risk of misdiagnosis, and are likely at risk for lower perceived control (Munch, 2004; Werner & Malterund, 2003). These routine conditions may negatively impact women's health preoperatively.

Importantly, scholars have argued that perceived control can function as a state. Therefore, it is critical that healthcare professionals work to promote women's sense of control prior to undergoing surgery. One way this can be achieved is to treat women patients with dignity (Baillie, 2009). Dignity can be interpersonally constructed, and increases in dignity may help increase perceptions of control (Haddock, 1996; Mains, 1994). Healthcare providers can enhance dignity by respecting their patient's individual autonomy (Chochinov, Hack, McClement, Kristjanson, & Harlos, 2002). As I previously mentioned, women's voices are often excluded or minimized in medical contexts, so incorporating women in decision-making processes before undergoing surgical procedures may help enhance their sense of control. Along similar lines, respecting women and what they have to say and acknowledging their individual questions regarding treatments or procedures will help promote greater perceptions of control.

Dignity is particularly important when patient's sense of control may be at risk, particularly in situations like undergoing surgery. Healthcare providers can work to communicate important information at every step before and after the surgery (Webster & Bryan, 2009). These suggestions and findings lay the foundation for implementing interpersonal procedures in medicine.

Limitations and Future Research Directions

The current study included a sample of women undergoing gynecological surgery at one facility, Michigan Medicine. Studying this sample allowed us to examine the importance of perceived control under unique conditions. Like every study, our results have limitations. First, our sample of women was largely White, and racial diversity was largely lacking. Part of this ties into issues of privilege, especially since White women are more likely than women of color to have access to life-saving surgeries. Therefore, based on our findings alone, it is unclear how perceptions of control may impact women of color's psychological health outcomes. Unlike White women, women of color face more complicated sets of prejudice in the context of medicine (Kreling, Figueiredo, Sheppard, & Mandelblatt, 2006; Saha, Arbelaez, & Cooper, 2003). While our study did not include men, this allowed us to focus exclusively on reproductive health conditions that uniquely face women. Future research could expand this work to examine possible similar effects in male patients undergoing surgery that are exclusively for men (e.g., prostatectomy). This would help increase the generalizability of the findings. Future research should also take our suggestions regarding dignity to test an intervention-based model. With this, researchers could use experimental methods, and then make better claims about directionality and causality. Further, the data in the current study are limited because they are cross-sectional in nature. Researchers should work to collect a rich set of data, both preoperatively and

postoperatively to conduct longitudinal analyses to examine how/if perceived control has longer term health implications.

Conclusions

The current study is among the first to empirically demonstrate the importance of perceived control on preoperative psychological health in a sample of women undergoing surgery for possible gynecological cancer. Our results demonstrate that increased perceived control has many benefits, including promoting positive psychological health. These add to a limited body of literature on perceived control and psychological health outcomes. These findings have implications for enhancing preoperative psychological health and have the potential to inspire interventions to promote women's perceptions of control.

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CHAPTER 3

Longitudinal Analysis of Perceived Control by Race/Ethnicity in a Sample of Women

Theoretical Overview

Longitudinal research has been dedicated to understanding if/how perceived control shifts throughout the course of one's lifetime (Lachman, Neupert, & Agrigoroaei, 2011). While this body of literature has been essential, women of color have been ignored and it is largely unknown how perceived control shifts over life for this sample. Therefore, in the current study I serve to address this significant blind spot in the literature.

Perceived Control and Women of Color

Research has examined perceived control in women of color almost exclusively in the context of a few health conditions. For instance, research with Latina and/or Hispanic populations has examined perceived control in regards to Type 2 Diabetes, cancer, HIV risk, and drinking during pregnancy (Bundek, Marks, & Richardson, 1993; Smiley, McMillan, Johnson, & Ojeda, 2000). Even less literature on perceived control exists for Black and/or African American women; research has examined perceived control in the context of cancer and non-condom use (Bremer, Moore, Bourbon, Hess, & Bremer, 1997; Wingood & DiClemente, 1998). Research on perceived control for Asian women is largely limited to disordered eating or depression (Sastry & Ross, 1998; Soh, Touyz, & Surgenor, 2006). Together, researchers examine women of color's perceived control in relation to select health conditions, exclusively using cross-sectional study designs. Previous research has done a significantly better job at prioritizing broader research initiatives on perceived control for White participants. Specifically, White participants perceived

control has been examined over the course of their lifetimes, and aren't limited to specific health conditions.

Perceived Control over Time

Longitudinal research has identified a series of mixed patterns over time; including stability in perceived control over time, a decline, or increases and decreases across multiple domains of control (Lachman, Neupert, & Agrigoroaei, 2011). Although these findings are critical, most studies did not pay sufficient attention to race. They do not report the racial demographic information, typically focus on majority White participants, or do not consider race as a variable in the longitudinal analysis. Information about participants' sex has been typically included, and primarily used for conducting comparisons (i.e., women vs men) or as a control variable. Consequently, women of color have been *systematically excluded*. This exclusion implies that all women's perceived control and patterns of control over time are homogeneous. It is necessary to consider that multiple social factors can differentially shape women's experiences as they age (Crenshaw, 1989).

For instance, many women with female reproductive organs uniquely go through menopause as they age. Research has demonstrated that women from multiple racial and ethnic groups experience menopause in significantly different ways. Their experiences shape attitudes toward their body, health, feelings about aging, and perceived control (Mahadeen, Halabi, & Callister, 2008; Sampselle, Harris, Harlow, & Sowers, 2002). Further, women of color face significantly more structural inequities and interpersonal discrimination in the context of medical care—regarding control of their bodies throughout their life— compared to White women (Pascoe & Smart Richman, 2009). It is plausible to anticipate differences in perceived control over time, at least between women of color and White women.

The Current Study

The purpose of the current study is to conduct an exploratory longitudinal analysis, to examine how/if perceived control changes over time in a sample of middle-age women from multiple racial/ethnic backgrounds. I examine two major questions: 1. How do women of color's perceived control compare to White women's perceived control at Time 1 (i.e., intercept). 2. How do women of color's perceived control change over time, compared to White women (i.e., slope)?

Methods

I used longitudinal data from The Study of Women's Health Across the Nation (SWAN), which is a national epidemiological study (Sutton-Tyrrell et al., 2014). Data were collected from multiple major cities across the United States, from Boston, MA to Oakland and Los Angeles, CA. Data were initially collected in a Cross-Sectional Screener survey (1995-1997), and from this a total of 3,302 women were determined to be eligible and enrolled into the longitudinal study. Data were collected every few years (Visit 1: 1997-1999; total $n = 2,881$), through the 10th follow-up visit (2006-2008; total $n = 2,245$). At Visit 1, the average age of women in the sample was 46.92 ($SD = 2.70$). At Visit 10 the average age was 55.97 years old ($SD = 2.69$). Because I conducted a secondary data analysis on publically available de-identified data, this project did not require IRB oversight.

Measures

Ethnicity: Women indicated their response to the variable "Ethnicity" in the Screener survey. The SWAN research team condensed the Ethnicity variable into 5 categories. Within the screening data, 27% identified as "Black/African American", 4% as "Chinese or Chinese

American”, 5% as “Japanese or Japanese American”, 12% as “Hispanic”, and 48% as “Caucasian/ White Non-Hispanic”, and 4% were missing data.

Income: Participants indicated their total family income before taxes on a scale ranging from 1 (*Less than 19,999*) to 4 (*\$100,000 or more*), starting at Visit 1. Within Visit 1, 12% of the women selected *Less than 19,999*, 30% indicated *\$20,000-\$49,999*, 37% of the women indicated the *\$50,000-\$99,999* bracket, and 17% indicated *\$100,000 or more*. About 4% were missing, “don’t know”, or refused to answer. I centered income by subtracting the value of 3 from each individual’s income score, so that the reference category for income was (*\$50,000 to \$99,999*).

Perceived Control. Perceived control was included in Screener dataset and Visits 1-10. Participants indicated the extent to which they “felt unable to control important things in their life” (1= *Never*, 5 = *Very Often*). Control was recoded, and higher values of indicate greater perceived control (Screener, $M = 3.67$, $SD = 1.13$).

Results

I used a linear mixed effect model in SPSS. This analysis is advantageous, because it does not require balanced data at each wave, and is generally more powerful than other models of repeated measure analysis (Shek & Ma, 2011). In our primary model (model 2), I controlled for a main effect of income, and the interaction effect of income over time (i.e., visit), because past research has found that differences in perceived control may be linked to income differences, and it is possible differences in income may produce long-term differences (Bosma, Schrijvers, & Mackenbach, 1999). I also controlled for participants’ baseline values of perceived control (present in Screener data), because individuals that indicate greater perceived control at baseline may indicate greater perceived control throughout the visits.

Model 1: I conducted model 1 as a model comparison to our primary model 2. In model 1, I examined perceived control over time excluding ethnicity, and control variables. I used Restricted Maximum Likelihood (REML) estimation and Autoregressive 1 (AR1) covariance structure. Since perceived control is an individual-level trait in which people can vary, I permitted a random intercept and random slope for each participant in the model. Akaike's Information Criterion (AIC) was 53,343.80, and Schwarz's Bayesian Information Criterion (BIC) was 53,391.55.

Model 2: I examined perceived control over time, by ethnicity, while controlling for income (main effect and interaction with visit) and baseline levels of perceived control. I used Restricted Maximum Likelihood (REML) estimation and Autoregressive 1 (AR1) covariance structure, and included random slope and intercept.

Model-fit statistics in model 2 were considerably lower than model 1 (AIC = 44,311.87; BIC = 44,343.03), the AIC reduced by 11,031.93 and the BIC value reduced by 9,048.03. The reduction in fit indices indicates that model 2 was the better fit model, because it reduced the amount of information lost (Akaike, 1974).

White women, with an income of \$50,000-\$99,999 were used as the reference ethnicity and income categories in Model 2. The intercept for White women's perceived control was ($b_0 = 3.05, SE = .05; p < .001$). In examining the slope estimate, the average White woman with an income of \$50,000-\$99,999, experienced a significant *increase* in perceived control over time. Every increase in visit was associated with an increase in perceived control ($b = .014, SE = .003; p < .001$). Below I report both intercept and slope comparisons of each ethnicity to White women. The estimates represent a difference score to the baseline slope and intercept data for White women.

Intercept Comparisons: To examine if women had different levels of perceived control at time 1, I examined the intercept estimates for each ethnic group compared to White women. There was no significant difference in the intercept value between Black women and White women ($b_0 = .02, SE = .04; p = .67$) and Chinese women and White women ($b_0 = -.005, SE = .06; p = .93$). There was no significant difference in the intercept value between Japanese women and White women ($b_0 = .02, SE = .06; p = .69$). There was no significant difference in the intercept value between Hispanic women and White women ($b_0 = -.004, SE = .09; p = .96$).

Slope Comparisons: To examine if women's perceived control changes over time, I examined the slope estimates for each ethnic group compared to White women. There was no significant difference in the slope for Black women compared to White women ($b = .006, SE = .005; p = .25$). There was no significant difference in the slope for Chinese women compared to White women ($b = -.012, SE = .008; p = .15$). There was no statistically significant difference in the slope for Japanese women compared to White women ($b = -.005, SE = .007; p = .48$). There was a statistically significant difference in the slope for Hispanic women compared to White women ($b = -.08, SE = .02; p < .001$). The exact slope for Hispanic women was ($b = -.07; SE = .02$), and this slope was statistically different than zero ($p < .001$), indicating a significant decline over time.

Discussion

The current study is among the first to longitudinally examine perceived control over time for women of various racial/ethnicity groups. I found that the average White woman experienced a significant increase in perceived control over time. Interestingly, I found no

significant differences in the intercept comparisons between women of color and White women. This indicates that all women indicated similar levels of perceived control at visit 1.

I found the slope of perceived control for Hispanic women was significantly less than the slope of perceived control for White women. I found that this slope was also statistically different than a slope of zero. Together, this indicates that Hispanic women experienced *decreased* perceived control over time. I did not find significant differences between the slopes of Black women, Chinese women, and Japanese women compared to White women.

I identified critical similarities and differences. Despite the advantages the current study, it was exploratory in nature and additional research is needed to examine additional factors to understand *why* these patterns of similarities emerge, and specific implications for each pattern. For instance, I did not find differences between Black and White women. Future research should consider the impact of the “Strong Black Woman” (SBW) on the pattern of perceived control over time. SBW is a social pressure for Black women to always demonstrate exceptional control, strength, and confidence (Abrams, Maxwell, Pope, & Belgrave, 2014). This reflects a more exaggerated form of personal control, and typically yields *negative* health consequences. Researchers should also consider other race/ethnicity specific factors that shape women’s perceived control, especially as women undergo menopause. Researchers should consider other cultural-specific factors that shape women’s perceptions of control, especially as women undergo menopause. For example, one qualitative study found that Japanese women express a sense of control during menopause (Zeserson, 2001). Group-specific beliefs may help explain why Japanese women indicated similar perceptions of control as White women.

Implications

Given the importance of perceived control on health outcomes, Hispanic women may face significant health disadvantages as they age. The pattern of decreased perceived control over time may reinforce extant health disparities among women in the United States. For instance, Hispanic women face significantly greater instances of cervical cancer and are more likely to die from it than White women are. This is largely associated with Hispanic women's substantially lower rates of undergoing cervical cancer screening (Corcoran & Crowley, 2014; O'Brien et al, Halbert, Bixby, Pimentel, & Shea, 2010). It is possible that significant decreases in perceived control is related to a reduced likelihood of Hispanic women seeking screening, and adhering to medical recommendations. To mitigate disparities in deaths, health care providers should treat Hispanic women with respect to help bolster their sense of control.

It is imperative to investigate *why* Hispanic women's perceived control fared the worst over time. For instance, one potential factor could be the culturally specific gender roles of *marianismo* —or the expectation of self-sacrifice, submissiveness, disempowerment, and care-taking and nurturance of others. Increased internalization of marianismo is related to adverse health outcomes (Cianelli, Ferrer, & McElmurry, 2008). It is also necessary to investigate how structural inequities in the United States (e.g., lack of health insurance, lack of accessibility to health care facilities, racism, etc.), impact ones' perceived control prior to facing a significant health condition such as cervical cancer. Hispanic women are less likely to have health insurance than White women. It is possible that this inequity reduces Hispanic women's perceived control, and this becomes worsened as women face more health issues throughout life and the need for going to the doctor increases.

It is critical to note that all women's perceived control— especially Hispanic women's perceived control— is not synonymous with *actual* control, especially at the institutional level in the United States. For example, in the summer of 2017, 13 men and no women drafted a Health Bill in the Senate, that had the potential to impact healthcare options and accessibility for women. Currently, perceived control is functioning as protective myth for women, reflecting a potential rather than an actual institutional control. It is possible that increasing women's actual control over their health, rather than just perceptions, may provide the greatest health benefits. Researchers should consider how lack actual of control at the institutional level may act as a public health *threat* for women.

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CHAPTER 4

Incivility and Perceived Control in Hospitals: A Qualitative Study

Theoretical Overview

Past research has identified incivility as one of the most prevalent forms of mistreatment in organizations. Pioneers of incivility purposefully distinguished incivility from other forms of mistreatment because its significantly less severe, and typically does not result in formal documenting procedures. Thus, incivility is a uniquely “legal” form of mistreatment (Andersson & Pearson, 2013). Incivility includes, low-intensity deviant behavior, in which its intent to harm is considered “ambiguous” (Porath & Pearson, 2013). Although incivility is significantly less severe than other forms of problematic workplace behaviors, it still violates norms of workplace respect. Uncivil behaviors range widely, and can occur routinely over the long-term (Cortina, 2008). For instance, uncivil behaviors can include being talked down to in a condescending way, being addressed in unprofessional terms, and ignored (Cortina et al., 2001). Researchers have been giving more attention to incivility because of its high prevalence rates in workplaces across the world (Porath & Pearson, 2013).

Consequently, a significant body of research has identified the vast range of costs and consequences associated with being a target of this mistreatment (see Schilpzand, De Pater & Erez, 2016). While the intent is ambiguous, there are a range of negative psychological, and work-related consequences. Recent research has suggested that these negative consequences fall into four main categories: Affective (e.g., increased emotional labor), Attitudinal (e.g., decreased

work commitment), Cognitive (e.g., decreased task-memory recall), and Behavioral (e.g., increased absenteeism, see Adams & Webster, 2013; Lim & Teo, 2009; Porath & Erez, 2007).

Incivility: Hospitals and Patients

Research has broadened its scope to examine the deleterious effects of incivility across various work contexts, including banking, universities, and the military (e.g., Cortina, Kabat-Farr, Leskinen, Huerta, & Magley, 2013; Sliter, Jex, Wolford, & McInnerney, 2010). Currently, a small body of literature has examined the effect of incivility on employees within a medical context (see Leiter, Laschinger, Day, & Oore, 2011; Oore et al, 2010; Trudel & Reio, 2011). Medical contexts, are considered to be extremely hierarchical in nature (Hinze, 1999; Lempp & Seale, 2004). Past research has demonstrated that individuals are very likely to experience incivility in hierarchical organizations (Caza & Cortina, 2007; Porath & Pearson, 2013), especially individuals in “lower” ranking positions within the hierarchy (e.g., Spence Laschinger, Leiter, Day, Gilin-Oore, & Mackinnon, 2009). Almost all the current literature on incivility in hospitals focuses on hospital employees (Leiter et al, 2011; Oore et al., 2010; Totterdell, Hershcovis, Niven, Reich & Stride, 2012; Trudel & Reio, 2011) especially nurses (e.g., Clark, Olender, Cardoni & Kenski, 2011; D’ambra & Andrews, 2014; Laschinger et al., 2012; Leiter, Price & Laschinger, 2010; Lewis & Malecha, 2011). In fact, incivility against nurses has been considered to be a “growing epidemic” (Deedrick & Sanchez, 2018).

Within this body of literature, incivility targeted against patients is rarely examined, which is surprising considering that patients make up a significant portion of the population in a hospital. Some research has investigated patients as the perpetrators of incivility against nurses (Campana & Hammound, 2015; Hutton & Gates, 2008). Further, some research has examined how incivility indirectly impacts patients. These studies have investigated how incivility against

nurses can impact patients' well-being and satisfaction (Felblinger, 2008; Hamblin et al., 2015; Kutney-Lee et al., 2009; McNamara, 2012). Some studies have examined mistreatment (broadly speaking) against patients. For instance, one study examined patient's perspective of mistreatment in the healthcare system (Raja et al., 2015), and another examined mistreatment within specific niches of patient groups (Leach, Lauder, Nicolson & Smith, 2005). However, very few studies examine incivility specifically, and its impact on patients. To address a significant gap in the extant literature, in the current study I focused on a sample of individuals that have been to the hospital, and have experienced incivility before. Further, I expand the existing literature by considering how incivility may impact patients' sense of perceived control.

Perceived Control and Incivility

As previously stated, perceived control is an individual-level difference, in which events in one's life are perceived to be within one's control. Increased perceptions of control tend to be associated with more positive health outcomes. This is particularly important for patients in a hospital, given that their health is being prioritized. Researchers have begun to acknowledge the importance of the interaction of one's environment on impacting perceived control, specifically the importance of the interpersonal environment. However, there is a scant body of literature examining how interpersonal mistreatment —incivility specifically— can also impact one's sense of control. The closest this relationship has been explored in the literature was in the context of social support. For instance, research has found a relationship between perceived control and social support (Bisconti & Bergeman, 1999; Schulz & Decker, 1985), and some research has even demonstrated the importance of this relationship over time (Gerstorf, Röcke, & Lachman, 2010). This research suggests that the nature or *quality* of your interpersonal environment may be the underlying mechanism impacting ones' sense of control. One study

found that among patients with ovarian cancer, those with greater perceived *unsupportive* family and friend relationships tended to have reduced perceived control (Norton et al., 2005). Given that incivility is extremely pervasive and the fact that it can take on many forms, it is important to study its connections to perceived control. Although it is largely unknown if and how incivility impacts patients perceived control, I hypothesize that is likely to have an impact. Therefore, in the current study, I examine if and how experiences of incivility in a hospital context impact individuals sense of control. To get at this, I implement a person-centered research approach to answer this research question.

Exploratory Questions

Given the multidimensional downstream psychological consequences of incivility, I expect that experiences of incivility will impact perceived control in a generally negative way. I expect the following patterns emerging in the data:

1. Some participants will indicate that their perceived control was not impacted at all.
2. Some participants will indicate that their perceived control has decreased or changed for the worse in that context.
 - 2a. However, I suspect some variation may occur within this group. For instance, individuals may indicate that their sense of control was temporarily lost, but then later regained it in another context. Some may suggest a more permanent influence, such that their sense of control has been impacted for the long term.

Methods

Participants

Participants were recruited from Amazon Mechanical Turk (n = 400), an online crowd source survey platform used in research. Participants were instructed that they survey they could

participate in would be about their experiences in a hospital setting. Other questions were included about their experiences in a hospital and what they imagine as their ideal interactions with healthcare professionals. Participants were told to indicate if they ever experienced incivility in a hospital by responding to the question, “Have you ever experienced incivility in a hospital setting, (for example, being talked down to)? If you have experienced this, please describe the event here. Please be sure to exclude names of specific people (e.g., doctors) or specific hospital names. Be sure to discuss your event in general terms.” For the current study, I focus on the subset of individuals that have experienced at least one form of incivility. Participants that indicated they have never been to the hospital before, did not respond to the incivility question, or included an irrelevant or nonsense answer were removed from the current analysis. Therefore, the final sample included 173 participants. Participants also responded to one question regarding their sense of control, “Does this experience impact your sense of control in the hospital context?” Please explain here?” This question is used as the main focus for the current study. Participants’ demographics were largely representative of a sample from Amazon Mechanical Turk. The mean age was 36.53 years old ($SD = 10.61$), and the sample was slightly more female (61.8%) and mostly White (76.3%). Participants indicated their level of education on a scale of 1 (*No formal education*) to 8 (*Hold Graduate/ Professional Degree*), and most had some college education ($M = 5.75$; $SD = 1.05$). Participants also indicated their socioeconomic status on a scale of 1 (*Poor*) to 5 (*Upper Class*), and most were between working and middle class ($M = 2.63$; $SD = 0.78$). Finally, participants indicated their political affiliation on a scale of 1 (*Very Liberal*) to 7 (*Very Conservative*), and most participants were liberal-leaning ($M = 3.35$; $SD = 1.80$).

Results

I used interpretative phenomenological analysis (IPA) to analyze the participants' text response to the question about their sense of control (Griffin & May, 2012). See figure IV.1 for results. IPA is rooted within phenomenology, a person-centered research methodology which seeks to understand the unique lived experience of the individual. Individual participants are regarded as the "expert" of their experience, and IPA gives voice to participants especially in contexts where the participant is not in a position of power (i.e., patient in a hospital) (Mahalingam & Rabelo, 2018). Unlike other research methodologies, IPA is inductive which permits the results to emerge from the participants' experience, and not by pre-determined ideas of the researchers. Following the recommended procedure by Griffin and May (2012) I first engaged in a close reading of participant's responses to the question about control. I then conducted coding to describe recurring patterns across participants. These codes were then condensed into superordinate themes. Within each superordinate theme, there were several subthemes. In the following section, I describe each superordinate theme broadly and then discuss each subtheme with more detail. For each I include quotes from the participants to give power to their voices. Overall, I found three main superordinate themes: "No Change", "Change", and "Maybes".

Theme 1: No Change

Among those who experienced a form of incivility, 57 individuals (33%) indicated what I categorized as "No Change", in which participants believed their perceived sense of control was not impacted in any appreciable manner. This included individuals that simply responded with

“no”, “not really”, or “not at all”. Even among this group of succinct responders, there was one participant that took space to comment on how negative their experience of incivility was:

“I felt like abused at the time, but no.” [Participant #215; 55 years old]

For this participant, even when their experience of incivility was comparable to abuse, they don’t believe their sense of control was impacted.

Subtheme 1. Aberration from the norm

Most of the participants that indicated no change, included more text to explain their reasoning. Within the first main subtheme, participants reflected on their experience of incivility and suggested that the event was an *aberration from the norm*. This group of participants conceptualizes a hospital as normally free from incivility and the majority of individuals working in the hospital as respectful. Despite their uncivil experience, this group attributed their uncivil event to one of several possible causes. This was their main belief as to why their perceived control was not negatively compromised as a result. Some participants described their event of incivility as a singular *event*:

“No. It was an isolated incident” [Participant #9; 65 years old]

“No. I consider the event a "one off" event.” [Participant #221; 51 years old]

Likewise, there were several participants that attributed the event to a single individual or ‘bad apple’.

“No, because I know there are good doctors out there.” [Participant #243; 33 years old]

“Not really, he was just one jerk in a crappy place.” Participant #89; 29 years old]

“No, I just chalk it up to him being an inconsiderate, incompetent Dr.” [Participant #183; 33 years old]

All of these participants that believe incivility is an aberration from the norm, imply that their experiences had the potential to negatively impact themselves, specifically their sense of control. There were some participants that expanded upon this by making explicit statements about how they don't want to generalize (uncivil individuals or events) to the entire field of medicine. By doing this, participants believe that incivility is context dependent and their control shouldn't be compromised.

“ummmmm not really I know it is the person not the healthcare industry in general.”

Participant #231; 33 years old]

“No not at all. I have been in and out of hospitals in the past and this experience was an isolated experience.” [Participant #162; 33 years old]

Subtheme 2. No control from the start

In addition to the first subtheme of participants, there was a second subtheme that also commented on the norms of hospitals to justify their answer. Rather than focusing on the norms of civility, this group commented on the norms of control within hospitals. Unlike the first subtheme, all participants in this subtheme converged on the idea that a *hospital is a context in which you have no control, and will never have control*. There were many participants that focused on themselves as individuals, suggesting that from the moment they enter the hospital they have no control:

“No. I had no sense of control to begin with.” [Participant #242; 34 years old]

“No, I am aware that I have limited control in a hospital setting.” [Participant #56; 40 years old]

“I don't feel I have much control over hospital experiences, so I would say not especially.” [Participant #110; 38 years old]

There were some participants that generalized this belief beyond themselves to all patients in the hospital.

“I don't think so. I believe that you are only in so much control in a hospital setting anyway. Sometimes if you do not agree with the treatment you are getting, the only option is to leave if possible, or just get the treatment the hospital staff suggests.” [Participant #119; 42 years old]

“Not a big change as patients have almost zero control in hospital or other medical setting.” [Participant #107; 62 years old]

“No, I think it is hard for patients to feel control in the hospital setting.” [Participant #200; 31 years old]

“No, not really. No one has a sense of control in that context. Even the staff often do not have control over outcomes (if a person is too ill or injured).” [Participant #279; 33 years old]

Interestingly, the event of incivility did not impact their sense of control negatively, because they believed they had none from the start. The perspective that these individuals have no control seems to be similar to that of learned helplessness, a psychological phenomenon in which individuals learn from previous uncontrollable experience that they have no control within a given environment. Earlier theorists posited that learning an event is uncontrollable can thwart subsequent perceptions of control (Maier & Seligman, 1976; Peterson, 1982). Consequently, a generalization is made to all future events. Our participants also generalize their belief that they would not have any control in any hospital. They also took this generalization a step further, and stated that all or most patients have no control in a hospital. While I don't know each participants' personal history in the hospital prior to the uncivil event, it is unclear what events

they experienced previously to reach this conclusion (i.e., they have no control from the start).

One participant suggests that control remains exclusively among doctors:

“No I still think most of the control is with the doctors.” [Participant #155; 32 years old]

Previous research has found that there are certain conditions in the hospital (e.g., being in the ICU) in which individuals can develop learned helplessness and feel like they lose all control (Sullivan, et al, 2012). Even increased hospital stay has been significantly associated with increased helplessness (Raps, Peterson, Jonas, & Seligman, 1982). Furthermore, research has also found that this phenomenon is also more likely to occur in individuals with certain health conditions, such as chronic pain conditions (Samwel, Evers, Crul, & Kraaimaat, 2006). According to learned helplessness theory, individuals that feel helpless are less likely to actively respond in ways to help them regain control. Therefore, it is possible that these individuals are unlikely to try to actively regain their control in the face of incivility because while they believe there is no control from the start, they also believe there is none to gain.

Subtheme 3. All control from the start.

The participants in subtheme 3 had the opposite perspective of subtheme 2. They believed they had full control from the moment they entered the hospital. Interestingly, the event of incivility did not impact their sense of control negatively, because they believed they always have control.

“No. I know I have control over everything that happens to my body in a hospital setting. I advocate for myself and have others advocate for me if I am unable.” [Participant #154; 35 years old]

“Not really, I was able to tell the staff that we didn't want to deal with that doctor anymore and we were able to get that wish met.” [Participant #236; 33 years old]

“Not at all. I still feel the same about this. I could take more control of the situation if I wanted.” [Participant #5; 25 years old]

If their control is threatened, sometimes they engage in behaviors to maintain it (e.g., requesting a new doctor). This action helps them retain their belief that they possess all control from the start in a hospital. While not explicitly stated, it is inferred that this group believes they have control over their body in the face of any health condition.

Subtheme 4. Reflective responses

Finally, the last subtheme of participants within the “no change” category provided more reflective responses. They considered their answers in more abstract terms, by considering the interaction of the individual *and* the conditions of the social context. For instance, while one participant admitted that the event of incivility did not influence their perceived control, they also recognize that other individuals may be affected if in the same situation:

“Not for me personally, but again, someone older or less savvy or alert could have real problems if they didn't exert control of the situation.” [Participant #168; 69 years old]

This participant does not deny the possibility that control can be impacted, instead they gesture to the idea that certain groups of people may be taken advantage of. There were a few participants that stated while their sense of control was not impacted, this outcome was largely dependent on the nature of the health condition or the hospital.

“No, I know that sometimes a patient cannot control what happens to them while they are in the hospital, sometimes for the severity of instability of their health.” [Participant #281; 28 years old]

“No. Every place is going to be different. Sometimes you'll like a place and sometimes you won't. It's one of those things in life you can't always control.” [Participant #130; 34 years old]

Theme 2: Changed

Among those who experienced a form of incivility, 94 individuals (54.3%) indicated what I categorized as “Changed”, in which participants believed their perceived sense of control was impacted in some appreciable way. This included participants that indicated any degree of change, including the phrases, “a little, a lot, etc.,” and simple agreement phrases, including “yes, sure, or I guess”. Even among the group that responded with a simple yes, they all broadly described how being treated with incivility was the reason their sense of control changed for the worse:

“Yes. It impacts it negatively. I felt like I didn't have any control.” [Participant #14; 35 years old]

“I felt completely out of control in this situation.” [Participant #214; 31 years old]

There was even one participant stated the connection between being treated with incivility and decreased sense of control. And another discussed the implications of this in regard to making medical decisions:

“Yes, I felt powerless to control the staff's treatment of me and the level of care I received.” [Participant #227; 48 years old]

“This absolutely impacts my sense of control. I often feel that I have NO control over my own medical decisions for MY body. No one knows my body better than I do, and this frustrates me.” [Participant #222; 34 years old]

Like participants from subtheme 2 of the “No” theme, the participants within subtheme 1 of the “Yes” theme would also agree with the idea that a hospital is a place in which you have no control. As previously stated, subtheme 2 believed that their sense of control was not impacted by their experience of incivility because they had no sense of control within that context to begin with. Unlike subtheme 2, the current group of participants believed that they had a sense of control from the beginning, but their experiences of incivility within that context removed or diminished their sense of control. Almost all of the participants that fell within this category focused on describing the event of incivility and articulated how exactly it deconstructed their sense of control:

“Yes, when you are stuck in a bed and more or less ignored you do feel powerless.”

[Participant #24; 67 years old]

“Yes, I felt powerless to control the staff’s treatment of me and the level of care I received.” [Participant #227; 48 years old]

“Yes, I came away feeling that the patient essentially has no say in how care is given.”

[Participant #197; 27 years old]

Subtheme 2. Vulnerability and incivility as the tipping point

Subtheme 2 focused on describing their affective experiences during normal hospital visits. All of these participants described hospitals as spaces in which they tend to feel more vulnerable. While vulnerability was a focus of their responses, the main point described was how their experiences of incivility acted as a major tipping point for them. Despite their feelings of vulnerability, they believed that they had a little bit of control from the start. However, incivility acted as the tipping point that stripped them of their control.

“I guess it does a little bit, because being in the hospital is already a disquieting experience and makes you feel absolutely not in control of what's happening to you. Any little experience that gets twisty can impact that feeling of losing your autonomy, in my opinion.”

[Participant #40; 51 years old]

This sentiment was also shared by another participant who believes that incivility amplifies those feelings of vulnerability.

“I always feel helpless and incredibly vulnerable in the hospital. I'm terrified of people, and I'm terrified of being deemed crazy and involuntarily committed. I'm on edge the entire time. I'm there. Having Dr. Jerk treat me like that just made those feelings of helplessness multiply.” [

Participant #50; 40 years old]

“Yes, it makes me feel more vulnerable.” [Participant #81; 33 years old]

As previously stated, incivility is defined as low-intensity aberrant workplace behavior, which lacks clear intent to harm. Therefore, it is not considered to be one of the more “severe” form of deviant workplace behavior, such as physical or verbal abuse. However, despite the low-intensity nature of incivility, it is possible that incivility may have a more amplified affect, particularly among those that enter the hospital with a more negative affective state. This suggests that the relationship between incivility and perceived control is also dependent on the individual-level factors (e.g., psychology) of the patient.

Subtheme 3. Helplessness

Participants that were part of subtheme 3, all used the word helpless in their response. While other participants from other subthemes sometimes used the word helpless, the sense of helplessness was central to the answers in subtheme 3. They all agreed that their experience of

incivility decreased their sense of control. Furthermore, a common theme throughout their answers included how the sense of losing control was synonymous with feelings of helplessness.

“I felt like I was helpless.” [Participant #252; 26 years old]

“It made me feel weak and helpless.” [Participant #264; 31 years old]

“It did make me feel helpless, because I was being ignored and felt like I had no control over the situation for a while.” [Participant #121; 25 years old]

One participant connected their feelings of helplessness to their observations of doctor’s motivations.

“It is a helpless and sorrowful feeling to have no say in your care and to have to trust your health to others that literally could not care if you lived or died and seem to derive a perverse thrill off of seeing you suffering in pain.” [Participant #223; 40 years old]

Subtheme 4. Future oriented

These participants agreed their sense of control was negatively impacted from their experience of incivility. Unlike the other subthemes, they reflected on their incivility experience as a data point to think about prospective future visits to the hospital. Given their negative experience, they tried to imagine what their future hospital visits may be like in the event that they must return, or they have to go again with a loved one. They all equate experiences of incivility with lack of quality care from health care professionals and express their personal concerns with not receiving adequate care.

“Yes, it worries me that some day I may have a serious problem and be written off as faking or drug seeking (luckily I didn't need or request drugs this last time, so it didn't happen, but I've heard horror stories).” [Participant #15; 31 years old]

In some cases, participant's opinions about hospitals or doctors fundamentally changed or their previous (more positive) opinions were called into question. There were even some participants that began to rethink if they should return to the select hospitals or departments in which the incivility occurred.

“Yes, makes me question that the doctor is the end all/be all in a hospital.” [Participant #53; 30 years old]

“Of course. I don't want to go somewhere for help and feel as if I'm being ignored or belittled by the only people that should be able to help.” [Participant #291; 29 years old]

“This absolutely effected my outlook in the hospital. I felt that I did not have control and felt judged and like I should not have gone there...” [Participant #284; 34 years old]

“Yes, it makes one less ER I will visit and thus limits my options for future care.”
[Participant #159; 32 years old]

Subtheme 5. Powerful others

Participants in subtheme 5 described how their experiences of incivility lead them to feel less control, and that control over their overall health and well-being was now owned by the doctors. This is largely reflective of the “powerful others” facet of the control literature. The dimension powerful others is the notion that individuals with more power (e.g., government officials, doctors, etc.,) have more control over the outcomes in an individual's life (Levenson, 1973; Levenson, 1974). Extant psychology research has identified deep connections between the belief of powerful others to doctors specifically (Marteau, 1990; Wallston, 2005). Participants in the current study demonstrated this by using the word “mercy” to describe their health outcomes:

“Yes, I realized that they can treat you however they want and say whatever cruel thing they want to you and you can't do anything because you need their help. You have no recourse if they are mean or screw up.” [Participant #55; 23 years old]

“Yes, because I'm at their mercy.” [Participant #120; 29 years old]

“Yes, I feel like my fate is in the doctor's hands.” [Participant #151; 21 years old]

This data suggests that being treated with disrespect could lead to a shift from the internal locus of control (i.e., control located within the individual) to powerful others (i.e., control located outside the individual, within a more powerful person).

Subtheme 6. Need to be agentic

Participants in subtheme 6 mirrored those in subtheme 3 (i.e., all control from the start) from the “No” theme. These participants believed they had control from the start. In the event that their sense of control was threatened, they were likely to actively engage in behaviors to reduce that threat. A critical difference between this group and subtheme 3 was that this group believed their sense of control was diminished from their experience of incivility, so engaging in these behaviors also helps restore the sense of control that was lost.

“Yes. The only way a family can maintain control is by physically staying with the patient 24/7 and learning the doctor's orders, then communicating them to every person that comes in the room to do anything to the patient.” [Participant #66; 37 years old]

“I would say the experience impacted me by taking greater sense of control in the hospital context, meaning that I actively take a more aggressive approach when I feel that my needs are not being met. Prior to this event, I'd been easy-going, even passive, in hospitals. But I realized after this experience that I needed to do a better job of standing up for myself when I sensed control being taken away.” [Participant #96; 41 years old]

“Yes. You have to take control. You can't be passive. If you are passive, you will get poor care because the communication system will break down.” [Participant #68; 46 years old]

Subtheme 7. Dehumanization

There was a large group of participants (over 15 individuals) that believed their sense of control was negatively impacted because their experience of incivility was dehumanizing. Dehumanization is the interpersonal phenomenon with which individuals deny the elements of being human to another to another human (Haslam, 2006; Haque & Waytz, 2012). The concept of dehumanization has been included in research on medicine. Dehumanization can occur if others are reduced from a human to an object or an animal. Dehumanization can occur if patients are not treated with full emotional support. The concept of doctors “not caring” was most frequently expressed:

“Yeah, it made me feel like I was just a thing to be talked to instead of a person with awareness that mattered.” [Participant #125; 24 years old]

“Yes. If the doctors treat you like a scolded animal, then you feel like you have no say in the matter.” [Participant #260; 45 years old]

“Yes, it makes me feel like they don't care what I say or feel, like my problems or pains are not important to them.” [Participant #292; 30 years old]

“Yes. I felt like they do not care if I sit there and die.” [Participant #180; 40 years old]

“Yes. I felt like the doctors didn't care what was actually going on with my daughter. I felt like I didn't have any say in her care.” [Participant #75; 33 years old]

An extension of not caring, included the lack of personal care, or the problems with standardization. Finally, there were several participants that focused on neglect as part of dehumanization. These participants believed they were not listened to.

“It makes me feel like doctors just follow a script and disregard anything that isn't included in it. I feel like there is nothing you can tell them that makes them change their mind once it's made up.” [Participant #134; 26 years old]

“I felt like I wouldn't be listened to so I didn't bother saying much of anything.”
[Participant #297; 43 years old]

“Yes, several different hospitals and they are all the same. Over worked, no time to connect with the patient, no time to actually listen to the needs.” [Participant #124; 39 years old]

Subtheme 8. Bureaucracy

The final subtheme included participants that believed their sense of control was decreased or absent altogether due to their experience of incivility. Uniquely, they believed the incivility was motivated by bureaucracy. They cited that the interests of doctors or hospital systems are focused internally, rather than on the well-being of the patients. Several participants cited that their experience of incivility was largely driven by profit:

“Yes. I think now everything is money.” Participant #93; 22 years old]

“Sure. I don't have much control over someone overcharging me and acting annoyed based on my (common) ignorance :) What is my alternative?” Participant #176; 47 years old]

“I don't feel any control; Insurance refuses any help and refuses to pay for any service that goes beyond a physical. I don't have any choice or power.” [Participant #209; 23 years old]

“Absolutely, it made me feel like I was there to work around his schedule, and not a patient who he was trying to help.” [Participant #49; 28 years old]

“Yes, I don't trust any doctor or hospital to be looking out for a patient's best interest anymore.” Participant #202; 39 years old]

Theme 3: Maybes

Among those who experienced a form of incivility, 8 individuals (4.6%) indicated what I categorized as “Maybe”, in which participants indicated that it was unclear if their sense of control was or was not significantly impacted. This included individuals that explicitly stated “maybe” or content of their answers could potentially fit into either the Yes or No theme.

“Initially, it did. In hindsight though, I would say that it impacted my sense of control in that hospital at that moment, but I still feel that in future events, I would still have a sense of control.” [Participant #34; 32 years old]

“Yes and no. It makes me a bit more leery of opening up to nurses in the future but you can't let it ruin everything forever.” [Participant #147; 26 years old]

“No, in that she did eventually allow me the time I needed but yes it could make you feel like you are not in control or that they are running the show without your input.” [Participant #190; 60 years old]

These participants indicated changes to their responses (yes or no) over time, upon further reflection and embrace the complexities of the situation. In addition to the three themes (i.e., yes, no, and maybe), there were 14 individuals that did not adequately respond to the question about control. These participants are not discussed here.

Discussion

In the current study, I implemented a person-centered approach to examine if and how experiences of incivility against patients in hospitals impacts one’s sense of control. In general, I found support for hypothesis 1, such that some participants indicated their sense of control was not impacted from their experience of incivility. This group represented a third of respondents, a sizeable portion of the respondents. However, there was a lot more variation of responses within this general theme and the data were more rich than originally theorized. Specifically, all these

individuals reached the same conclusion, but the subthemes offered oppositional reasoning. One of the more important distinguishing factors was if participants believed they had control from the start or not. If they believed they had it, they were likely to believe that their experience of incivility was an aberration from the norm, or engage in action to maintain it. Together, these participants had a more positive outlook about their experiences, and consequently their control was not impacted. On the other hand, if they believed they had no control from the start, they were likely to adopt a mindset like that of negativity bias. Their sense of control was not impacted by incivility because they believed if you have no control, there is nothing left to lose. Given that these two very distinct subsets of individuals emerged in the analysis, it is important for researchers to investigate these as separate samples. It would be important to examine how their sense of control subsequently affects their psychological and physiological health.

In addition to the first major theme, I found support for the idea that many participants believed their sense of control was impacted. Importantly, I found that the majority (i.e., over half) indicated this response. I found that incivility lead to different affective responses, like feelings of helplessness and increased negative affect. Often, their sense of control was displaced to powerful others. Further, many participants within this superordinate theme developed strategies to restore the sense of control that was lost, like speaking up or thinking about their future hospital visits. While incivility is considered to be a “minor” form of mistreatment, I see—from participant’s responses within this group—that its potential implications are not necessarily minor. Outcomes like decreased sense of control, not wanting to return to a specific doctor could have serious consequences depending on the health of individual participants. While other negative outcomes were not investigated in the current study, it is possible that incivility may result in a greater number of other negative outcomes. This should be empirically

investigated. Future research should examine the full range of potential physical and psychological consequences associated with incivility targeted against patients.

This study introduces important questions into the domain of control research. Together these results suggest that perceived control could be more malleable than previously understood. Research has generally theorized that control as a relatively stable individual-level variable. The results of the current study suggest that the dynamics of the interpersonal environment have power to shape control, at least temporarily. Control has the potential to be interpersonally constructed, and I saw lots of evidence how it can be removed or diminished within another individual. It would be interesting to see if the opposite can exist, specifically how conditions of respect can help *foster* individuals sense of control. Given the current data, it is unclear if instances of incivility impact a local form of control (i.e., specific to health) rather than a more global sense of control (i.e., general to all aspects of life). Researchers should empirically examine this possible link. Given that control can be interpersonally (de)constructed, it is important for future researchers to think about the specific power dynamics between doctors and patients. As stated previously, patients are not in a position of power, whereas healthcare professionals have specific power in a hospital. Further, patients often rely on the knowledge and expertise of healthcare professionals, because they realize the quality of their life is often dependent on it. Additionally, individuals are socialized to inherently trust their healthcare professional. Therefore, doctors have a lot of possible influence in shaping individual's sense of control. Future research should thoroughly examine the specific pathway of incivility from doctors, on impacting patients sense of control, and how that influences health promoting outcomes like medical adherence.

Limitations & Future Directions

While the current study is among the first to explore the relationship between incivility and perceived control, this study is not without limitations. The sample in the current study was an online “convenient sample”, therefore was not as demographically diverse as the population in the United States. While this was not part of the analysis, it is possible that experiences of incivility were shaped by intersections of patients’ class, gender, age and culture. Future research needs to use more mixed methods to examine if the instances of incivility are targeted to people of color, people from lower socioeconomic status backgrounds, and other individuals from marginalized categories. In the current study, participants frequently mentioned that the source of their incivility was from their doctors. While I did not ask about the specific information regarding the relationship between themselves and their doctor, future research should further examine this relationship. For instance, routine visits to one doctor may be helpful in developing a civil working relationship, thus reducing the likelihood of experiencing uncivil interactions. Likewise, it is also critical to consider the context of the visit more deeply. Participants in the study voluntarily included information describing why they were at the hospital. It is possible that the nature of the visit (e.g., emergency vs routine care) may impact the interpretation of the event as uncivil, and thus their subsequent beliefs about their sense of control. It is possible that individuals in emergency situations may interpret rapid decision making in the emergency department as uncivil.

In terms of developing interventions, it is important that hospital administrators carefully consider how everyday (mis)treatment between all personnel (especially healthcare professionals and patients) could be contributing to larger-scale issues. I recommend that hospital administrators establish norms of interpersonal respect across all departments.

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CHAPTER 5

General Discussion

Overview

The goal of the current study was to advance our understanding of perceived control in the context of health and medical contexts. Using multiple quantitative (i.e., survey and longitudinal) and qualitative research methods (e.g., interpretative phenomenological analyses), I explored the ways in which perceived control influences a number of health outcomes, functions across time, and how perceived control can be interpersonally constructed. To summarize the key findings across all three studies, in chapter two, I found that increased perceived control can help promote psychological well-being, amplifying the body of literature that exists in regards to health outcomes associated with perceived control. In study two, these perceptions of control can fluctuate over time, and the pattern of fluctuation depends on the intersection of an individuals' identities. Finally, in study three, perceptions of control can fluctuate depending on the nature of the immediate context, specifically depending on perceptions of a respectful context. Across all three studies, I find support for the massive body of research that suggests perceived control is a protective psychological mechanism with associations to positive health outcomes. However, the current dissertation study critically examines this body of research and provides important implications for future research.

In Chapter two, I considered how women's perceived control would relate to their perceived psychological health before undergoing surgery for gynecological cancer. I found that perceived control not only had the potential to positively impact health promoting behaviors (as

found in the literature), but could also have a positive impact on psychological health outcomes. I found that increased perceived control was significantly related to improved perceptions of psychological health outcomes through a reduction in negative affect. Upon further examination, I also found that increased perceived control was significantly related to greater engagement in health promoting behaviors, also through a reduction of negative affect. Together, these findings underscore the deep relationship between individual-level psychological mechanisms and overall well-being, which have important implications for preventive medicine. I also found that these findings remained while controlling for the effects of invasiveness of the surgery and final diagnosis. This study emphasizes the importance of expanding on the literature examining the psychological health of women undergoing cancer surgery-an understudied area. Therefore, the essential takeaway from chapter two was that perceived control is critical for informing psychological health. In another research study, I wanted to replicate the model in chapter two in a sample of postmenopausal women from across the United States. I found support for this model, such that increased perceived control was related to improved perceptions of overall health, including social health through a reduction in negative affect (Vargas & Mahalingam, 2018).

While in chapter two, I expanded the outcomes investigated in relation to perceived control and identified that this psychological mechanism is critical for health, in chapter three I wanted to investigate patterns in perceived control over time. Specifically, I examined if this perception would fluctuate throughout women's midlife, and how this differed by women's racial/ethnic identity by using an exploratory longitudinal analysis. Therefore, in chapter three, I dove deeper into a more diverse sample of women and challenged the notion that women from multiple backgrounds would have the same perceptions of control over time. Due to the lack of

literature on women of color's perceptions of control over time, I did not form any specific hypotheses. However, I considered the possible effects of socioeconomic status on influencing perceived control over time by including this variable in the model. Interestingly, I found no significant differences between White women and women of color's perceived control at the start. However, when examining this perception over time, I found that White women's perceived control significantly increases over time. By comparison, Hispanic women's perceived control significantly differs, such that their perceived control significantly decreases over time. This pattern for Hispanic women suggests that they may face a disadvantage as they age through midlife. Although I could account for socioeconomic status in the model, the model doesn't help us understand *why* this pattern emerged for Hispanic women. In chapter three, I recommended future directions that researchers could take in order to close these gaps. Taken together, the essential takeaway from chapter three, is that the identities of participants matter in terms of understanding their perceived control, especially race/ethnicity.

Together, across chapters two and three I have highlighted a massive gap in the literature. Specifically, the perceived control literature does not include an intersectional approach. The very idea that an individual can have personal control over their own health behaviors, environment, and others, is largely based on ideologies rooted within hegemonic patriarchy. This body of literature has been defined by and applied to populations of White, heterosexual, Western, male-identified samples. Scholars in perceived control research domain fail to take into account the important histories of personal control when considering its unique meaning and implications to various populations, especially marginalized or underrepresented populations. The literature on perceived control in its earliest application to health-related research assumes that all individuals have *any degree* of perceived control. Historically and currently, White,

heterosexual, Western, male-identified samples are situated at the top of the social hierarchy, and are born into positions in which they already have control over other their bodies, other people, and important institutions—all of which are critical to health outcomes. Perceived personal control over one's surroundings reinstates one's position in society, and is a privileged belief. So, there is an assumption that all individuals possess an aspect of control.

Similarly, if all individuals do in-fact possess perceived control, classic and current research on this topic rarely considers the impact of societal-level demographic contextual factors on individual-levels of perceived control. Historically, women and people of color have not always had access to the full range of control like White men have had in medical contexts in the United States. For instance, African Americans in have been physically exploited in medicine, within experimental treatments and surgeries, most often without their consent (Gamble, 1997). Further, women are less likely to be perceived as experts of their own body, their medical complaints are more likely to be attributed to psychological conditions, and their physical conditions are less likely to be investigated fully by healthcare professionals (Munch, 2004). Even at the structural level, women and racial minorities have been systematically excluded from leadership positions that control healthcare policy that influences their lives. Despite these important societal-level factors, it is assumed that *all* individuals are capable of believing they are in full control, and that control is equally meaningful and impactful across groups.

Feminist scholars have challenged the implicit ideas of homogeneity in psychology, by stating that demographic identities are critical to understanding differences between groups of individuals (Mahalingam, Balan, & Haritatos, 2008). Specifically, Crenshaw introduced intersectionality theory, which suggested that the simultaneous intersection of individual's

marginalized identities—not simply the addition of them—informs the ways in which individuals experience the world, including their own perceptions and the way others interact with them (Crenshaw, 1989). Some researchers have attempted to examine the role of perceived control in minority racial groups within the United States (e.g., Gibbons et al., 2012; Hayes et al, 2000), individuals from lower socioeconomic status groups (Bettencourt, Talley, Molix, Schlegel & Westgate, 2008), and within samples of women (e.g., Holm, Frank, & Curtin, 1999). However, this body of literature is still scant, and these gaps have significant implications for understanding health outcomes for these populations. Therefore, until recently, theories on perceived control have posited that all participants are primarily from White middle class background. Chapters two and three by making women and racial/ethnic minorities central examine how intersections of gender, age and ethnicity shape perceived sense of control.

In chapter four, I explored the phenomenology of perceived control using a qualitative research. Using a qualitative study, I examined how this protective psychological mechanism can be hindered by contexts of (dis)respect. By conceptualizing participants as the expert of their experiences, the responses provided a complex picture of sense of control in the hospital setting. The key takeaway of chapter four was that perceptions of respect can influence subsequent perceived control, in particular perceived disrespect can negatively impact perceived control. By uniquely introducing perceived respect as a construct to the control literature, I was able to find some initial support suggesting that respect and control are interpersonally constructed and dynamic. Chapter four highlights a critical gap in the literature, such that the nature of the interpersonal environment *in relation to perceived control* has rarely been considered in the hospital context.

Empirical studies have examined the role of perceived control—broadly speaking—in the context of hospital or medical environments. The clear majority of this literature has examined perceived control among health care professionals, including nurses, doctors, and staff. The primary focus of this body of literature is to examine how it impacts their burnout and stress (Glass McKnight, & Valdimarsdottir, 1993; Laschinger, Shamian, & Thomson, 2001; Schmitz, Neumann, & Oppermann, 2000; van Servelen, Topf & Leake, 1994), health (Bosma et al, 1997; Steptoe, 2001), job attitudes (Szilagyi, Sims, & Keller, 1976). Medical or hospital related contexts are typically more hierarchical as compared to other environments, such that doctors are situated at the top of the hierarchy with the most power and control, with nurses below, and patients at the lowest rung (Coombs & Eresser, 2004; Lempp & Seale, 2004). When considering patients in medical contexts, it is critical to consider how their location within the hierarchical system could be an overarching factor in influencing their perceived control. There are many circumstances in which patients in a hospital don't have control over what is physically happening to them. For instance, individuals that enter the emergency room for traumatic events or individuals that undergo surgery, surrender aspects of their personal control to doctors and other important medical staff that work on them. In fact, the role of low-control circumstances has been introduced into the literature as a significant factor (e.g., Thompson, Sobolew-Shubin, Galbraith, Schwankovsky, & Cruzen, 1993).

Original theorists of perceived control speculated that individuals were attempting to control all aspects of their environments; however, research has nuanced this perspective further (Reich & Infurna, 2016; Rotter, 1954). Rothbaum suggested that individuals could have both the desire to change their environment to fit their personal needs, *or* adjust the self to fit the environment (Morling & Evered, 2006; Rothbaum, Weisz, & Snyder, 1982). Over the years,

scholars have recognized the importance of the role of the environment, however this body almost exclusively focuses on how the individual influences the environment. The inverse has rarely been considered. Specifically, the ways in which the environment directly shapes individuals' sense of control (Reich & Infurna, 2016). Extant literature on perceived control and social support, suggests that perceived control influences and is influenced by positive social support (Gerstorf, Röcke, C., & Lachman, 2010; Ruthig, Haynes, Stupnisky, & Perry, 2009). In Chapter four, I address this gap in the literature, however it is critical that researchers begin to consider perceived control as a dynamic construct, that is influenced by perceptions of respect.

Taken together, each of these studies takes on different samples, women undergoing surgery, women from multiple racial and ethnic groups in the midlife, and another with a larger sample of patients. Together these three studies contribute to the larger literature on perceived control. As stated previously, I find support for the idea that perceived internal locus of control is a protective psychological mechanism, and higher internal control yields more favorable health outcomes. What we can learn from these studies is that control is more complex than originally theorized. Although it's an individual-level personality-type variable, it can fluctuate across time, and has the capacity to be influenced by the nature of interpersonal interactions and social context. This suggests that perceived control is more malleable than originally theorized. Additionally, research has imagined control as an individualistic trait outside the influence of more collective social factors (e.g., interpersonal respect). This dissertation suggests these two entities are more linked than the control literature theorizes. Future research needs to continue investigating perceived control with these conceptualizations of control in mind.

Limitations and Future Directions

While the current dissertation addresses significant gaps in the perceived control literature and pushes the body of literature forward, there are important limitations across all three studies that need to be recognized. While I was expansive in the types of research methods used, (i.e., including survey, longitudinal, and qualitative), each of these methods has their own unique limitations. For instance, with the survey used in chapter two, our findings cannot formulate any conclusions about causation due to the correlational nature of the study. In the longitudinal analysis in chapter three, our analyses are limited by the attrition of the participants across the ten years. Finally, in chapter four it is possible that our qualitative responses are not completely representative of the general public because there is selection bias in terms of who decides to opt-in to a study from the beginning. However, it is important to note that despite the methodological flaws with each study, together this dissertation provides a multi-methodological examination of perceived control. Future research on perceived control should continue to implement this multi-methodological approach to gain the greatest amount of research insight.

A second major limitation across the three chapters includes the way perceived control was measured. In chapter two, perceived control was measured using the Health Locus of Control Scale—a multi-item measure that prioritizes health as a focus. In contrast, in chapter three, I relied on the control variable that was made available in the SWAN dataset. This included one item about perceived control, and the focus was on a much more general form of control, not exclusively focused on health. Finally, in chapter four, I asked participants how experiences of mistreatment in hospital settings impacted their sense of control. It is possible that there was individual-level variation in how control was conceptualized. It would have been helpful to define for participants what perceived control means. As described in chapter one,

perceived control has been measured using a variety of scales, and research has found that it is multidimensional. Thus, while in the current dissertation, I assessed perceived control in various ways this could be a strength since it reflects general patterns of the literature broadly, and in chapter four I could demonstrate how much individual variation there was of perceived control.

Another important limitation to articulate includes the (lack of) full demographic diversity of the samples. While incorporating an intersectional approach was central to this dissertation, representation of more diverse samples can always be achieved. For instance, I had the strength by focusing on samples of women (in chapters two and three) and racial/ethnic minorities (chapter three). In future studies, it would be helpful to include a more expansive list of racial groups and ethnicities for participants to choose from, and to focus on recruiting marginalized and underrepresented samples. Furthermore, it is critical to incorporate samples of participants that are also diverse in terms of socioeconomic status, non-English speaking individuals or English as a second language, and immigrant status. For instance, in thinking about socioeconomic status, in chapter two the vast majority (over 90% of participants) had health insurance which permitted them to have a potentially life-saving surgery. Participants that had no insurance, would likely not even have the opportunity to visit Michigan Medicine to get that surgery. Therefore, they would never have an opportunity to enroll in the study. In chapter three, I controlled for the effects of socioeconomic status, and in chapter four, some participants mentioned in their responses how their (lower) socioeconomic status may have been a reason they were targeted with mistreatment. Taken together, future research should thoroughly examine a broader range of identities.

For all the studies, I focused exclusively on the impact of perceived control on health outcomes in multiple samples of patients. However, I believe that studying doctors' well-being is

also important, especially in the context of patient care. Doctor/patient interactions are bidirectional in nature so it is critical for future researchers to consider how perceived control may impact the psychological health outcomes for the doctor, which in turn may have implications for health outcomes of the patient.

In future work, it is also necessary to use a more culturally inclusive conception of perceived control, or even reconsider how relevant this construct is for every individual. Our current conception of perceived control is derived from ideologies that reflect American values of individualism and the bootstrapping mentality. This is problematic because it assumes that an individual's cultural perspective is irrelevant. It is possible that individuals may come from a cultural background where collectivism is prioritized and perceived as ideal in health. To date, some research has attempted to explore perceived control in international samples, including populations from different parts of the world, like Spain, South India, and Iran (Gopinath, Radhakrishnan, Sarma, Jayachandran, & Alexander, 2000; Torres et al., 2009). In addition, I believe we need to challenge the Western-centric approach to this body of literature, which inherently believes that increased perceived control is uniformly positive. While I have already cited a significant body of literature statistically demonstrating this effect, it may not be as uniformly positive or impactful for everyone. Future researchers should continue to conduct cross-cultural research to investigate important cross-cultural similarities and differences. One example of this includes expanding the perceived control literature into the field of global health inequalities. For example, I would like to investigate how Venezuela's national-level extreme shortages in basic medical supplies (e.g., medicine in hospitals) impacts their individual sense of control. Additionally, I would like to examine Venezuelan women's perceived control in the face

of extant anti-abortion policies and the Venezuelan government's refusal of international aid (including birth control).

While outside the scope of the dissertation, I believe it is critical for future researchers to develop and empirically examine interventions within hospital contexts that can be used to increase perceived control for patients. For example, researchers could test how the presence of social support during a doctor's visit might help patients feel a greater sense of perceived control, even in the face of disrespectful treatment from a doctor. Across all the dissertation studies, I did not incorporate data representing if individuals had any form of social support. This is important for future research because previous research has found that social support can have both instrumental and emotional benefits (Semmer et al., 2008).

Overall, the present dissertation connects literature on psychological health, health outcomes, perceived control, and intersectionality. Together these studies, demonstrate that increased perceived control does yield a variety of positive health-related outcomes. Health care providers should work hard to help promote individuals sense of control by treating patients with disrespect. Furthermore, this work provides insight as to how to empower others, promote respect, disrupt inequality, and promote well-being, in all health and medical contexts.

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Appendix A: Tables and Figures

Table II.1

Demographic Variables of Women Undergoing Surgery

Demographic Variables	Sample Size	Sample Frequency	Sample Percent
Route of Procedure	301		
Laparotomy		157	52.2%
Laparoscopy		139	46.2%
Vaginal		5	1.7%
Postoperative Diagnosis	300		
Benign		71	23.7%
Malignant		229	76.3%
Age	279		
<40		23	8.2%
41-50		49	17.6%
51-60		99	35.5%
61-70		76	27.2%
71-80		27	9.7%
>80		5	1.8%
Marital Status	289		
Married/live with partner		184	63.7%
Single		38	13.1%
Divorced/separated		43	14.9%
Widowed		21	7.3%
Other		3	1.0%
Education	290		
Less than High School		5	1.7%
Some High School		10	3.4%
High School Graduate		127	43.8%
College Graduate		91	31.4%
Advanced Degree		57	19.7%
Employment Status	287		
Full/Part time		137	47.7%
Retired/home maker		100	34.8%
Self Employed		11	3.8%
Unemployed		19	6.6%
Disabled		14	4.9%
Other		6	2.1%
Annual Household Income	225		
< \$25,000		43	19.1%
\$25,000-\$50,000		58	25.8%
\$50,000-\$75,000		48	21.3%
\$75,000-\$100,000		32	14.2%
>\$100,000		44	19.6%

Health Insurance	288		
Yes Health Insurance		270	93.8%
No Health Insurance		18	6.3%
Prescription Insurance	288		
No Prescription Insurance		28	9.7%
Yes, Prescription Insurance		260	90.3%

Table II.2

Items in the Health Locus of Control Scale

Items
1. If I take care of myself, I can avoid illness.
2. Whenever I get sick, it is because of something I've done or not done.
3. Good health is largely a matter of good fortune.
4. No matter what I do, if I am going to get sick, I will get sick.
5. Most people do not realize the extent to which their illness are controlled by accidental happenings.
6. I can only do what my doctor tells me to do.
7. There are many strange diseases around that you can never know how or when you might pick one up.
8. When I feel ill, I know it's because I have not been getting the proper exercise or eating right.
9. People who never get sick are just plain lucky.
10. People's ill health results from their own carelessness.
11. I am directly responsible for my own health.

Table II.3

Items in the Positive and Negative Affect (PANAS) Scale

Items
1. Determined (P)
2. Attentive (P)
3. Alert (P)
4. Inspired (P)
5. Active (P)
6. Afraid
7. Nervous
8. Upset
9. Ashamed
10. Hostile

Note. Items marked with a (P) indicate those that are part of the Positive Affect Subscale. The unmarked items are part of the Negative Affect Subscale.

Table II.4

Items in the SF-12 Scale

Items	Scales
1. Overall, how would you rate your health during the past 4 weeks? (PH)	1= Excellent, 5 = Very Poor
2. During the Past 4 weeks, how much did physical health problems limit your usual physical activities (such as walking or climbing stairs)? (PH)	1= Not at all, 5= Could not do physical activities
3. During the Past 4 weeks, how much difficulty did you have doing your daily work, both at home and away from home, because of your physical health. (PH)	1= Not at all, 5= Could not do daily work
4. How much bodily pain have you had during the past 4 weeks? (PH)	1= None, 5= Very Severe
5. I seem to get a sick a little easier than other people. (PH)	1= Definitely True, 5= Definitely False
6. I am as healthy as anybody I know. (PH)	1= Definitely True, 5= Definitely False
7. I expect my health to get worse. (PH)	1= Definitely True, 5= Definitely False
8. My health is excellent. (PH)	1= Definitely True, 5= Definitely False
9. During the past 4 weeks, how much energy did you have? (MH)	1= Excellent, 5= Poor
10. During the past 4 weeks, how much did your physical health or emotional problems limit your usual social activities with family or friends? (MH)	1= Not at all, 5= Could not do social activities
11. During the past 4 weeks, how much have you been bothered by emotional problems (such as feeling anxious, depressed, or irritable)? (MH)	1= Not at all, 5= Extremely
12. During the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, school, or other daily activities? (MH)	1= Not at all, 5= Could not do daily activities

Note. Items marked with a (PH) indicate those that are part of the Physical Health Subscale. Those marked with an (MH) indicate those that are part of the Mental Health Subscale.

Table II.5

Items from the Health-Promoting Lifestyle Profile II Scale

Items
1. I look forward to the future.
2. I set realistic goals.
3. I report symptoms to my doctor.
4. I discuss health concerns with my doctor.
5. I observe my body for changes.
6. I get my cholesterol levels checked.
7. I get my glucose levels checked.
8. I get my blood pressure checked.
9. I eat breakfast.
10. I eat three meals a day.
11. I eat fruits and vegetables.
12. I follow a low fat or weight loss diet.
13. I follow a low salt diet.
14. I follow a diabetic diet.
15. I take time each day to relax.
16. I am aware of what causes stress in my life.
17. I meditate or pray.
18. I am comfortable expressing my feelings to others.
19. I can manage my stress.

Table II.6

Correlations Among Study Variables

Variables	Correlations				
	1	2	3	4	5
1. Locus of Control	--				
2. Negative Affect	-.18**	--			
3. Positive Affect	.12*	-.39***	--		
4. Physical Health	-.25***	.44***	-.51***	--	
5. Mental Health	-.11	.57***	-.54***	.71***	--
6. Health Behaviors	.20***	-.21***	.29***	-.19***	-.19***

Note. Higher scores on Physical and Mental Health indicate more self-perceived ailments thus worse health.

* $p < .05$. ** $p < .01$. *** $p < .001$.

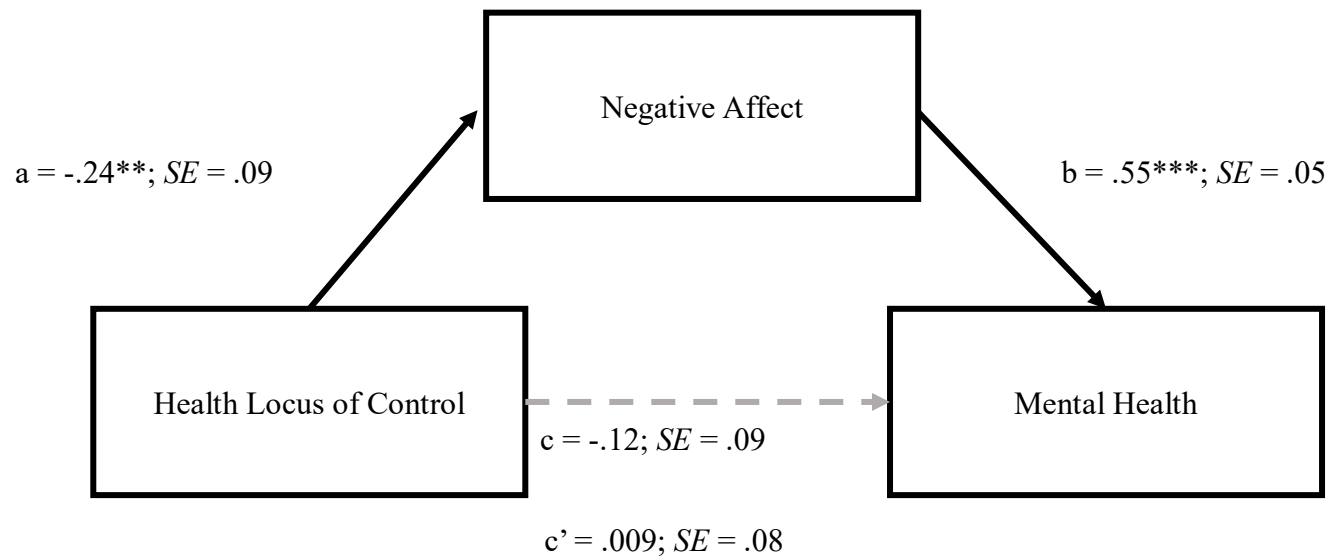
Table IV.1

Themes Identified in the Data

Themes	Subthemes
No Change	Aberration from the norm No control from the start All control from the start Nuanced responses
Change	Incivility diminishes control Vulnerability and incivility as the tipping point Helplessness Future oriented Powerful others Need to be agentic Dehumanization Bureaucracy
Maybes	--

Figure II.1

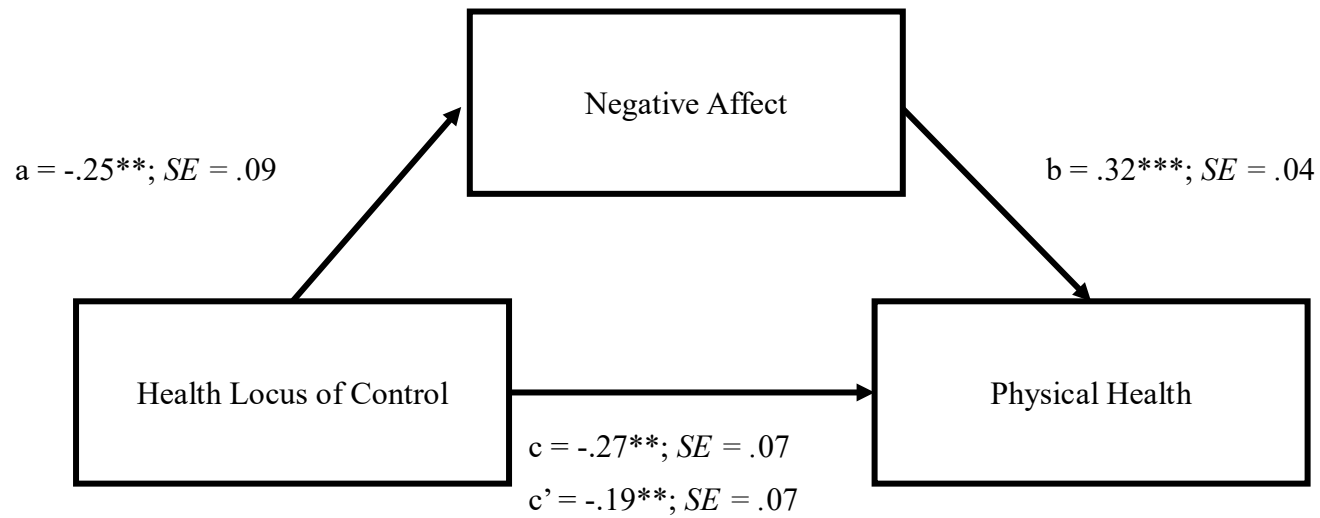
Mediation Analysis of Perceived Control on Mental Health, through Negative Affect



Note. c = total effect, c' = direct effect; $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Figure II.2

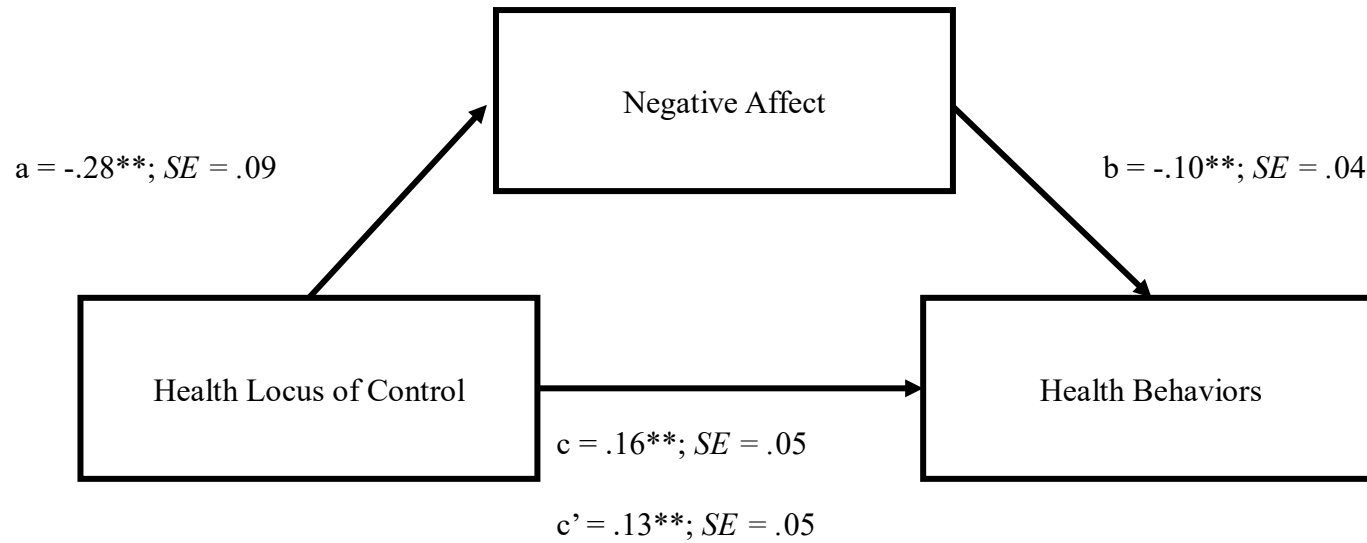
Mediation Analysis of Perceived Control on Physical Health, through Negative Affect



Note. c = total effect, c' = direct effect; $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Figure II.3

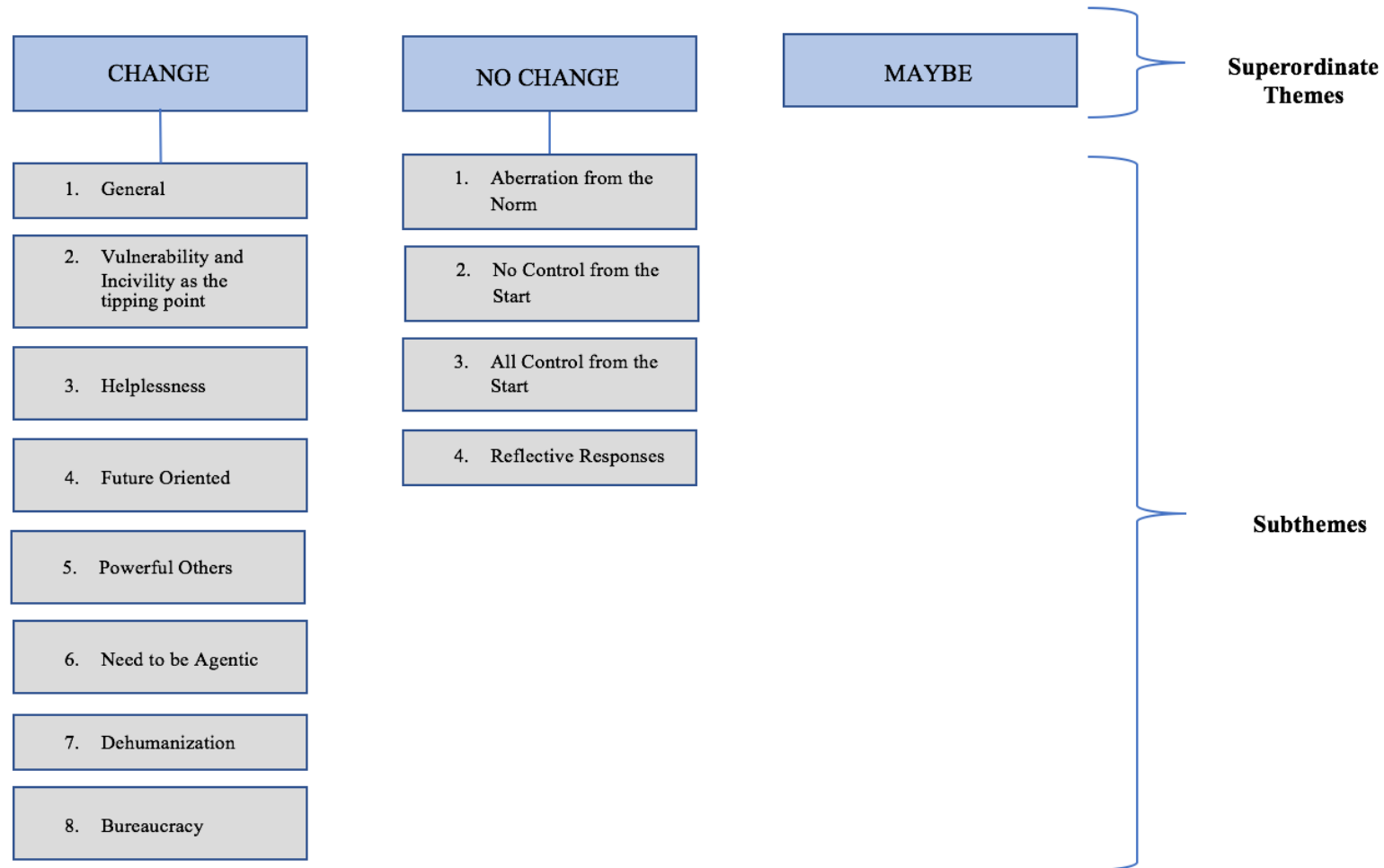
Mediation Analysis of Perceived Control on Health Behaviors, through Negative Affect



Note. c = total effect, c' = direct effect; * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure IV.1

Superordinate Themes and Subthemes of the Data



Note. The superordinate themes Change, No Change, and Maybe reflect participant's responses if they believe their sense of control was impacted after experiencing incivility in a hospital. The subthemes describe the variation within the three main themes.