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Gendered Responses to Stress: Differences Across Type of Stressor and Mental Health Outcomes

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GENDERED RESPONSES TO STRESS: DIFFERENCES ACROSS TYPE OF STRESSOR
AND MENTAL HEALTH OUTCOMES

An Undergraduate Honors Thesis
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by

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Abstract

It is well known in mental health literature that men and women tend to manifest distinct mental health outcomes. Specifically, women tend to report higher levels of internalizing symptoms, such as depression and anxiety, whereas men tend to report higher levels of externalizing symptoms, such as alcohol abuse and antisocial behavior. This research will further explore the relationship between stress and mental health, as well as the moderating effect of gender. Drawing from the differential vulnerability hypothesis and self-salience theory, I take a novel approach to examining a variety of stressors and mental health outcomes. I assess whether stressors that are particularly salient to either men (masculine-salient) or women (feminine-salient) differentially shape internalizing and externalizing mental health outcomes by gender. I expected feminine-salient stressors to be more detrimental for women's internalizing outcomes and masculine-salient stressors to be more detrimental for men's externalizing outcomes. I used data from the National Health, Well-being, and Perspectives Survey to examine these hypotheses. Contrary to expectations, some stressors appeared gender-neutral and had a consistent effect on internalizing outcomes across gender. For example, poor physical health and daily strain increased internalizing outcomes for both men and women to the same extent. In other instances, gender moderated the stress-health association in a manner opposite than expected. For example, men's internalizing outcomes were more strongly impacted by a perceived threat to the safety of one's significant others than women's internalizing outcomes. The implication of these findings for the proposed theory and future research are discussed.

Introduction

Men and women experience similar levels of stress exposure and mental health problems (Thoits 1986; Turner and Lloyd 1999). Gender differences, however, manifest in two ways when investigating the association between stressors and mental health. First, in the presence of stress, men and women tend to exhibit different mental health outcomes. Specifically, women report more internalizing symptoms (e.g., anxiety and depression), whereas men report more externalizing symptoms (e.g., alcohol abuse and aggression) (Elliott 2001; Kessler et al. 2003; Rosenfield, Lennon, and White 2005; Rosenfield and Smith 2010). Self-salience theory argues that this occurs because women prioritize others over the self in social relationships, whereas men prioritize the self over others.

Second, stress process theory argues that women are more vulnerable to stressors than men in general (Kessler and McLeod, 1984). In other words, given similar levels of stress exposure, women will experience more adverse mental health consequences than men. This is referred to as differential vulnerability to stress (Aneshensel 1992). There is mixed support for the differential vulnerability hypothesis. Some research finds that women are more vulnerable to stress, particularly interpersonal stress (Sadanger, 2004; Turner and Avison, 1989), whereas men might be more vulnerable to other kinds of stressors such as job demands (Pugliesi 1999). Other

studies find no gender differences in vulnerability to stress whatsoever (McDonougha and Walters, 2001). These inconsistent findings may result from variation in both the specific stressors and mental health outcomes under investigation across the studies.

The purpose of this current study is to simultaneously examine these two ideas about gender differences in the stress and mental health association. First, this research theoretically develops a system of classifying stressors that may be more salient (and thus more impactful) for women compared to men (and vice versa) to more fully understand gender differences in vulnerability to stressors. Drawing on arguments from the stress process model (Pearlin 1999), self-salience theory (Rosenfeld 2005), and identity theory (Marcussen et al. 2004), I develop a scheme to classify stressors into two categories: Masculine-salient stressors are those that may threaten men's ability to perform masculine roles that are salient to their identities, whereas feminine-salient stressors are those that may hinder women's ability to perform feminine roles that are salient to their identities.

Second, the proposed differential gender vulnerability to stressors may only manifest within the gender-typical outcomes (i.e. internalizing for women and externalizing for men). Using data from the National Health, Well-Being, and Perspectives Survey (NHWPS), we empirically examine the extent to which gender-salient stressors associate with both internalizing and externalizing mental health outcomes for men and women. I expect that stressors that threaten masculinity will be more impactful on men's mental health, whereas stressors that hinder feminine roles will be more impactful on women's mental health. Finally, it is possible feminine-salient stressors will be most influential on women's internalizing symptoms, whereas masculine-salient stressors will be most influential on men's externalizing symptoms.

By integrating and expanding upon existing theoretical frameworks, this study advances previous research in several ways. First, the majority of previous research has focused on the influence of workplace stressors and family-related stressors (Scott and Alwin 1989; Offer 2014; Goodman and Crouter 2009). I expand on this by examining stressors outside of the workplace and the family, such as poor physical health, financial strain, and fear of crime. Second, this research also moves beyond the idea of domain-specific stressors (e.g., within the family or at work) and instead examines stressors as threats to gender roles and identities. Third, we examine a number of internalizing and externalizing mental health outcomes, so as to identify any existing gendered patterns. For example, if financial strain is in fact more detrimental to men's than women's mental health, does that hold true for both internalizing and externalizing symptoms? It is possible that some stressors will lead to anomalies in this typically gendered pattern.

Theory

The stress process model, identity theory, and self-salience theory are three major frameworks that are essential to understanding the relationship between stress and mental health. Integrating these theories allows us to examine the stress and mental health association from a

new perspective. By reviewing these three frameworks, I will outline how they helped shape my proposed theory.

Stress Process

Stress is defined as “a state of imbalance resulting from environmental demands (stressors) that challenge an individual’s capacity to cope” (Elliott 2013; Lazarus 1966; Menaghan 1983; Pearlin 1983). It is widely known that exposure to stress can lead to poor mental health (Thoits 2010; Turner et al. 1995). The stress process model (Pearlin et al. 1981) and its subsequent related literature attempts to investigate further by examining different forms of stress (e.g., chronic versus life events) as well as mediators and moderators of the stress and mental health relationship. When studying gender differences in mental health, the stress process supposes both a differential exposure and differential vulnerability hypothesis.

The differential exposure hypothesis is a theoretical explanation for gender differences in mental health that asserts women have higher rates of depression and psychological distress as a result of greater overall exposure to stress (Pearlin, 1999). Previous research in this area finds that men and women typically experience equal rates of disorder overall (Rieker, Bird, and Lang, 2010; Rosenfield and Smith, 2009). While some research has found that differences in exposure to stressful experiences varies by gender (Turner et al. 1995), there has been controversy in this area regarding the validity of stress measurement. How a study measures stress can contribute to evidence of differential stress exposure that appears legitimate but fails to fully capture all relevant forms of stress, thus creating misleading results (McLean and Link 1994, Wheaton 1994; Turner et al. 1995; Turner and Lloyd 1999). Thoits (1986) found that overall rates of stress exposure are equivalent for men and women when accounting for the number and type of roles they assume. Overall, stress exposure does little to explain gender differences in mental health (Turner and Lloyd 1999).

The differential vulnerability hypothesis offers an alternative explanation by proposing that differences in mental health outcomes in response to stress are not due to women’s greater exposure to stress, but rather to women’s greater vulnerability to stress. It suggests that while women and men report similar levels of overall stress exposure, women may be more vulnerable to stress than men. The mixed empirical evidence for this hypothesis may be due to the limitations of prior studies. A number of studies were limited by the fact that they only measured internalizing symptoms and not externalizing symptoms (Simon 2014; Smith, Mouzon, and Elliott, 2016). This disproportionately represents mental health symptoms more likely to be reported by women. This leads to evidence that women experience significantly higher rates of mental health problems, when in fact other manifestations of mental health more prevalent among men have not been considered.

A key point to take away from differential vulnerability theory is that some individuals may be more vulnerable to certain stressors than others. Much research has focused on the cost-of-caring hypothesis, which suggests that women are more affected emotionally by events not

only in their own lives, but by network events – stressful life events experienced by one’s significant others (Kessler and MacLeod 1984; Kessler, McLeod, and Wethington 1985; Wethington, McLeod, and Kessler 1987; Turner and Avison 1989). This hypothesis seeks to explain gender differences in psychological distress by examining women’s greater emotional investment in the lives of their loved ones, which suggests that women may be more vulnerable than men to stressors of an interpersonal nature.

Gender role theory (also called sex-role theory or social-role theory) is closely related to the cost-of-caring hypothesis and offers a compelling explanation for gender disparities in the effects of stress on mental health by focusing on gender vulnerability differences across the domain in which the stressor occurs (e.g., family or work) (Gove and Tudor 1973; Thoits 1991). For example, men have historically been socialized to assume their primary role as the breadwinner or main financial provider and tend to judge their self-worth in terms of success within this role. Analogously, women are socialized to prioritize their familial role as caretakers and judge themselves in terms of their relationships with others and their ability to take care of them. As such, evidence shows that work-related stressors more strongly affect men’s mental health, whereas family-related stressors more strongly affect women’s mental health (Ruble et al. 1993; LaRocco et al. 1980; Martikainen et al. 1999).

Identity Theory

Identity salience may also play a role in explaining the impact of stress on mental health. Pearlin and colleagues (1981) suggest that stressors which directly threaten one’s salient identities are far more likely to result in negative mental health outcomes. When individuals attach personal meaning to a role, it becomes an integral part of the self-concept (Stryker 1981; Stryker and Serpe 1982). Identity theorists argue that identity importance may moderate the relationship between stress and distress, with stress occurring in roles that are considered central to one’s identity having a more detrimental effect on mental health than stress that occurs in roles not salient to one’s identity (Marcussen et al., 2004). Thoits (1991) also emphasized the importance of identity salience as it relates to stress with evidence that roles that provide purpose and meaning to an individual’s self-concept are particularly vulnerable to stressors.

Self-Salience Theory

Another dimension of the self-concept important to gender and mental health research is self-salience. Self-salience refers to the relative importance of the self in relation to others (Rosenfield et al. 2005). Self-salience theory proposes that there are significant differences in how men and women learn to value themselves in relation to others, and that this has a crucial impact on which mental health outcomes they experience. Specifically, due to their traditional roles as caretakers, women are generally socialized to value others over themselves, resulting in low self-salience. These social expectations of low self-salience prevent women from prioritizing their own needs, leading to internalizing mental health outcomes that typically inflict harm upon themselves rather than others, such as anxiety and depression. Men, in contrast, are generally

socialized to have high self-salience by valuing themselves over others. Expectations of high self-salience result in men displaying externalizing mental health outcomes, or behaviors that prioritize their own needs and desires and show disregard for others, such as aggression and substance abuse (Rosenfield et al. 2000; Rosenfield, Lennon, and White 2005; Ruble et al. 1993). Thus, gender differences in the manifestation of mental health outcomes can be explained in part by gender differences in self-salience.

Gender, Mental Health and Stress

Informed by the above review theories, I hope to expand the literature on stress research by exploring how specific stressors and specific mental health outcomes intersect. I begin by categorizing stressors into one of two groups. By classifying stressors in this way, I intend to further explore how gender moderates the association between stress and mental health.

Masculine and Feminine Salient Stressors

Masculine-salient stressors pertain to a form of stress that is more threatening to hegemonic masculinity norms. In my study, these include experiencing financial strain, poor physical health, perceived threats to personal safety, or being assaulted via threat or use of physical force. Societal expectations of hegemonic masculinity suggest that men should be healthy, strong, powerful, and otherwise socially-dominant beings. These expectations shape their masculine identities, and stressors that threaten this identity may be particularly impactful on men's mental health. For example, men have historically been socialized toward the breadwinner role, which is associated with seeking prestige and financial achievement in the workplace; therefore, financial strain may act as a masculine-salient stressor. I have identified the remaining stressors as threats to masculinity largely because they compromise one's physical health and safety. My understanding of hegemonic masculinity suggests that in order to maintain their masculine identities, men prioritize appearing strong and socially-dominant in the presence of others. I predict that stressors that threaten or compromise men's ability to perform these masculine identities will have a differential effect on men's mental health compared to that of women.

Feminine-salient stressors pertain to a form of stress that is more threatening to hegemonic femininity norms. In my study, these include daily strain, perceived threat to the safety of significant others, and witnessing violence. Drawing from the cost-of-caring hypothesis and identity theory, I suspect that stressors that compromise a woman's ability to care for others – a role that tends to be particularly salient to her identity – will be particularly impactful on women's mental health. For example, a woman experiencing a lot of stress worrying that someone she cares about may become a victim of a crime, may experience more negative mental health outcomes than a man experiencing the same stress. Similarly, witnessing violence that occurs to others may be more impactful on women's mental health due to its interpersonal nature. Daily strain may also hinder a woman's ability to adequately perform roles that are salient to her identity. Previous research finds that responsibility for household tasks,

childcare, and work demands results in higher levels of stress for women, for whom the role of a family caretaker typically has greater salience compared to their male counterparts (Matthews et al. 2001; Scott and Alwin 1989). Therefore, the daily strain stressor may differentially affect the mental health of women because it threatens women's ability to perform roles salient to their identities.

Gender-Salient Stressors on Internalizing and Externalizing

I predict that gender will moderate the association between specific stressors and mental health outcomes. The foundation for this prediction comes from salience theory and the non-specific response to stress argument. Salience theory supports the idea that certain stressors may be more salient to one gender than the other, and therefore will be more detrimental to the mental health of individuals of that gender than the other (Aneshensel et al., 1981; Gove, 1972, 1979). The non-specific response to stress argument proposes that any form of stress will lead women to internalize and men to externalize (Aneshensel, Rutter, and Lachenbruch 1991). Gender socialization underlies this argument by explaining that men and women are socialized to express their responses to stress in distinct ways. Specifically, women may learn that it is more socially acceptable for them to exhibit internalizing symptoms like depression, while men learn that it is more socially acceptable for them to exhibit externalizing symptoms, such as aggression and substance abuse (Simon 2002; Thoits 1989). I seek to make this argument more specific by proposing that masculine-salient stressors will lead men to exhibit externalizing symptoms, and feminine-salient stressors will lead women to experience internalizing symptoms.

In general, I suspect that evidence demonstrating gender differences in mental health may not be as simple as it seems. I intend to investigate this more thoroughly by conducting exploratory research involving stressors that are not inherently related to work or family and moving beyond the domain of the stressor. Specifically, I expect that masculine-salient stressors will be met with increases in mental health outcomes for men, especially for externalizing symptoms. Similarly, I expect that feminine-salient stressors will be met with increases in mental health outcomes for women, especially for internalizing symptoms. By analyzing a variety of stressors and stress responses, I hope to gain new insights into the associations among gender, stress and mental health.

Methods

Sample

The National Health, Well-being and Perspectives Survey is a nationally representative survey of over 1,000 adults collected in 2015 from a random selection of postal addresses in the United States. This survey gathered relevant information regarding stressors and mental health outcomes. It also collected information on a variety of demographic controls such as age,

income, race, marital status, and level of educational attainment. In the present study, we analyze data from 728 respondents; a number of cases were dropped due to missing data.

Measures

Mental Health Outcomes. *Depressive symptoms* were assessed by a 4-item scale in which respondents reported how often in the past 30 days they had experienced a number of feelings or behaviors related to sadness and hopelessness. Example items include “I felt that nothing could cheer me up” or “I felt that I had nothing to look forward to.” Responses ranged from 0 to 3.8, with higher numbers indicating more depressive symptoms. *Anxiety* was measured by a 5-item index, combining reports of how often individuals felt “anxious,” “tense,” or “worried” in the last 30 days. Responses ranged from 0 to 4, with higher numbers indicating higher anxiety. A 5-item index was used to measure *Aggression*, including responses to statements such as “I lose my temper pretty easily” and “In the past 12 months, I threatened to hit or hurt another person.” Responses ranged from 0 to 4, with higher numbers indicating higher aggression. *Alcohol Abuse* was captured by a 4-item index including reports of experiencing “trouble controlling my drinking” and “problems at work or at home because I had been drinking” in the last 12 months. Responses ranged from 0 to 4, with higher numbers indicating more instances of alcohol abuse.

Masculine-salient Stressors. These stressors are those that we suspect may be more salient to men’s identities. *Physical Health* was assessed by asking respondents “Would you say that your physical health is: excellent, very good, good, fair, or poor.” We recoded the items such that higher scores indicate worse physical health, with responses ranging from 0 to 5. *Perceived Threat to Personal Safety* was measured by asking respondents “How often do you experience each of the following: I worry about becoming a victim of a crime” with response choices of never, rarely, sometimes, often, or always. Responses ranged from 1 to 5, with higher numbers indicating higher fear of victimization. To capture *Assault*, respondents were asked to fill-in the number of times they had experienced each of the following in their adult lifetime: “You had someone threaten you with force or use physical force against you, but it did not result in your injury” and “You had someone use physical force against you that resulted in your injury.” Responses were then recoded to range from 0 to 10. *Financial Strain* was measured using a 7-item index of individuals’ responses to questions including how often in the past 30 days they “had trouble paying the bills,” “felt burden from having too much debt,” or “did not have enough money to buy food, clothes, or other things needed by the household.”

Feminine-salient Stressors. *Daily Strain* was captured by a 6-item index in which respondents reported how often in the past 30 days they felt that they “were able to do almost everything they needed to do,” “had too little time to perform daily tasks,” and “had more things to do than they could handle.” *Perceived Threat to the Safety of Significant Others* was captured using the question: “How often do you experience each of the following: I worry about someone I care for becoming a victim of a crime.” Respondents’ answers of never, rarely, sometimes, often, or always were coded so that higher numbers indicated greater fear of victimization for

their significant others. *Witnessing Violence* was captured by combining four variables measuring various events in which the respondent was a witness to violence. The survey asked them to “please indicate the number of times you have personally witnessed each of the following during your adult lifetime. Do not include things you may have seen in the media.” The four situations asked about concerned witnessing crime, threats of force that did not result in someone’s injury, physical force that resulted in someone’s injury, and sexual harassment or assault.

Control Variables. *Educational attainment* was measured by eight possible response choices to the question “What is the highest degree or level of school you have completed?” We recoded these responses to create a dummy variable where 1 indicates that the respondent has a Bachelor’s degree or higher and 0 being less than a Bachelor’s degree. To measure *Race*, respondents were asked to check all that apply from the following list of races: White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, or Other, in which the respondent was asked to specify by filling in the blank space provided. This was then dichotomized to refer to White and Non-White individuals. To measure *Income*, respondents were asked to provide an answer to the open-ended question “What was your total family income during the past 12 months? Please include income from wages and salaries earned by you or other adults in your household. Also include government assistance, gifts, or other income you may have had.” I substituted the mean income for cases that were missing a response in order to prevent losing cases. I also used the logged form of the variable to create a more normal distribution. Respondents’ *ages* were calculated using the dates of birth they provided. Similarly to income, we substituted the mean for age in cases that were missing data, in order to prevent losing cases, and also used the logged form of the variable to create a more normal distribution. I assessed *marital status* using the question “Which of the following best describes your relationship status?” with response choices that we split into four categories: married; single, never married; widowed, separated, or divorced; or remarried.

Data Analysis

Descriptive statistics for the sample are presented in Table 1. In order to test gender moderation on the relationship between stressors and mental health outcomes, I ran regression models separately by gender. I used a linear regression model to first assess the effect of stressors on internalizing outcomes, and then on externalizing symptoms. I then tested for cross-model gender differences in the effect of stressors on mental health outcomes using the following equation:

$$Z = \frac{\beta_1 - \beta_2}{\sqrt{(SE\beta_1)^2 + (SE\beta_2)^2}}$$

where β_1 is the coefficient for men and β_2 is the same effect coefficient for women, and $SE\beta_1$ is the standard error for to the β_1 and $SE\beta_2$ is the standard error for the β_2 . When the z-value is statistically significant, it indicates that the effect for that variable on the dependent variable differs by gender.

Table 1: Descriptive Statistics

	<i>mean</i>	<i>std.</i>	<i>min</i>	<i>max</i>
<i>Dependent Variables</i>				
Depressive Symptoms	1.75	.46	0	3.8
Anxiety Symptoms	1.68	.63	0	4
Aggression	1.07	.73	0	4
Alcohol Abuse	.13	.40	0	4
<i>Stressors</i>				
Physical Health	3.41	.96	1	5
Financial Strain	2.08	.89	1	5
Daily Strain	2.57	.76	1	5
Threats to Safety (Oneself)	2.40	.94	1	5
Threats to Safety (Others)	2.83	1.01	1	5
Assault	.41	.91	0	5
Witnessing Violence	1.03	1.74	0	11
<i>Controls</i>				
Female	.62	.49	0	1
Age	3.97	.33	2.9	4.6
Income (<i>in thousands</i>)	10.87	1.39	0	600
Non-white ^a	.20	.40	0	1
<i>Marital Status</i>				
First-Marriage	.46	.50	0	1
Remarried	.17	.38	0	1
Divorced/Widowed	.25	.43	0	1
Single, Never-Married	.12	.32	0	1
BA or More Education	.48	.50	0	1

N=728

^aOmitted reference category is White individuals.

Table 2: Stressors and Controls Regressed on Internalizing Outcomes by Gender

	Depressive Symptoms					Anxiety Symptoms				
	Women		Men		Cross Model Z-test	Women		Men		Cross Model Z-test
	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>		<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>	
<i>Masculine Stressors</i>										
Financial Strain	.00	.03	.08 *	.04	-.07	.05	.03	.14 **	.03	-.09
Physical Health	-.09 ***	.02	-.08 **	.03	-.01	-.10 ***	.03	-.09 **	.03	.00
Threats to Safety (Oneself)	.08 **	.03	-.02	.03	.10 *	.05	.03	.12 **	.03	-.07
Assault	.00	.02	.01	.03	.00	.05	.03	.00	.03	.06
<i>Feminine Stressors</i>										
Daily Strain	.19 ***	.03	.12 **	.04	.07	.36 ***	.04	.31 ***	.04	.05
Threats to Safety (Others)	-.04	.03	.11 ***	.03	-.15 ***	.01	.03	.03	.03	-.02
Witnessing Violence	-.05 ***	.01	-.02	.01	-.03	-.03	.02	.01	.02	-.04 *
<i>Controls</i>										
Age (logged)	-.07	.07	-.07	.10		-.29 ***	.08	-.30 *	.08	
Income (logged)	-.02	.02	.04	.02		-.02	.02	.06 *	.02	
Nonwhite ^a	-.15 **	.05	-.10	.06		-.15 *	.06	-.30 ***	.06	
Remarried ^b	.02	.06	-.02	.07		.00	.07	-.01	.09	
Divorced/Widow ^b	.06	.05	.17 *	.07		-.12	.06	.17 *	.09	
Never-Married ^b	.01	.07	-.03	.08		-.07	.08	.05	.10	
BA or More Education	-.03	.04	.01	.06		-.06	.05	.00	.05	
Constant	2.08	.39	1.14	.55		2.40	.45	1.06	.67	
R-square=	.215		.249			.407		.419		

Notes: * p<.05; ** p < .01; *** p < .001 two-tailed)

^a Omitted reference category is White individuals.

^b Omitted reference category is First-Married individuals.

Table 3: Stressors and Controls Regressed on Externalizing Outcomes by Gender

	Aggression					Alcohol Abuse				
	Women		Men		Cross Model Z-test	Women		Men		Cross Model Z-test
	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>		<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>	
<i>Masculine Stressors</i>										
Financial Strain	.00	.04	.06	.07	-.06	-.03	.02	-.01	.04	-.02
Physical Health	-.02	.04	-.05	.05	.03	.02	.02	-.05	.03	.07 *
Threats to Safety (Oneself)	.02	.04	.00	.06	.01	.06 *	.02	-.01	.04	.07 *
Assault	.00	.04	.01	.06	.00	.02	.02	.02	.04	.00
<i>Feminine Stressors</i>										
Daily Strain	.22 ***	.05	.10	.07	.12	.04	.03	-.01	.04	.05
Threats to Safety (Others)	.02	.04	.03	.06	.04	-.01	.02	.02	.03	-.03
Witnessing Violence	.01	.02	.01	.03	.00	.01	.01	.01	.02	.00
<i>Controls</i>										
Age (logged)	-.24 *	.11	-.21	.18		-.20 ***	.06	-.18	.11	
Income (logged)	-.06 *	.03	-.03	.04		-.06 ***	.01	.01	.03	
Nonwhite ^a	-.08	.08	-.18	.12		-.04	.04	.02	.07	
Remarried ^b	-.19 *	.09	.06	.13		-.02	.05	.01	.08	
Divorced/Widow ^b	-.20 *	.09	-.02	.13		.01	.05	-.02	.08	
Never-Married ^b	-.16	.11	.10	.15		-.09	.06	-.07	.09	
BA or More Education	-.19 **	.07	-.11	.10		.01	.04	.08	.06	
Constant	2.04 ***	.61	2.09 *	.99		1.27 ***	.33	.90	.61	
R-square=	.172		.072			.108		.034		

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$ two-tailed)

^a Omitted reference category is White individuals.

^b Omitted reference category is First-Married individuals.

Results

Masculine Stressors

The top four rows in Tables 2 and 3 show the effect of masculine-salient stressors on internalizing and externalizing outcomes. I expected these stressors to be more detrimental for men than women, especially on externalizing outcomes. One stressor did approach this expected trend: Financial strain appears to have a stronger effect on men's mental health than women's, but this only applied to internalizing outcomes. Increases in financial strain were met with increases in depressive symptoms for men ($b=.08$, $p<.05$) and not for women ($b=.00$, ns), as well as increases in anxiety for men ($b=.14$, $p<.01$) and not for women ($b=.05$, ns). These effects are not significantly different from one another for depressive symptoms ($z=-.07$, ns) or for anxiety ($z=-.09$, ns). Financial strain did not have a significant effect on externalizing outcomes for men or women. With poorer physical health, higher depression was reported by both women ($b=-.09$, $p<.001$) and men ($b=-.08$, $p<.01$). Higher anxiety was also reported by both women ($b=-.10$, $p<.001$) and men ($b=-.09$, $p<.01$) with poorer physical health. However, poor physical health also did not affect externalizing outcomes for men or women.

Perceptions of threat to personal safety affected internalizing outcomes differently for men and women. Increases in this stressor saw increases in women's depressive symptoms ($b=.08$, $p<.01$) but not for men ($b=-.02$, ns). These effects are significantly different from one another ($z=.10$, $p<.05$). For anxiety, we find the opposite trend. Increases in perceptions of threat to personal safety are met with increases in anxiety for men ($b=.12$, $p<.01$) but not for women ($b=.05$, ns), but the effects did not significantly differ by gender. For externalizing symptoms, increases in perceptions of threat to personal safety were met with reports of increased alcohol abuse for women ($b=.06$, $p<.05$) but not for men ($b=-.01$, ns). These effects were significantly different across genders ($z=.07$, $p<.05$). The measure for assault was not significant for either gender across both internalizing and externalizing mental health outcomes. This null effect may have occurred because very few people in the sample reported any kind of actual or threatened assault.

Feminine Stressors

The next three rows in Tables 2 and 3 show the effect of feminine-salient stressors on internalizing and externalizing outcomes. I expected these stressors to be more detrimental for women than men, especially on internalizing outcomes. Daily strain did appear to have a slightly stronger effect on women than men for both externalizing and internalizing outcomes. For women, as daily strain increased so did aggression ($b=.22$, $p<.001$). This association was not significant for men ($b=.10$, ns), however, these effects did not significantly differ by gender. As for internalizing symptoms, daily strain had significant effects on depressive symptoms for both women ($b=.19$, $p<.001$) and men ($b=.12$, $p<.01$) as well as on anxiety for both women ($b=.36$,

$p < .001$) and men ($b = .31$, $p < .001$). In both instances, the effect is slightly larger for women, but the cross-model tests do not indicate significant gender differences.

Contrary to being more detrimental for women, I find perceptions of threat to the safety of significant others to be more detrimental for men. Increases in this stressor were met with an increase in depression for men ($b = .11$, $p < .001$) but not for women ($b = -.04$, ns). These effects are significantly different from one another ($z = -.15$, $p < .001$). For both men and women, perceptions of threat to the safety of significant others was not significantly associated with anxiety or either externalizing outcome.

In a very unexpected finding, witnessing violence manifested a slightly negative, rather than positive, association with depressive symptoms for women. As vicarious violence increased, levels of depressive symptoms for women *decreased* ($b = -.05$, $p < .001$). There was no significant effect for men, however these two effects are not significantly different. Witnessing violence did not have any significant effects for either gender on anxiety or either externalizing outcome.

Discussion

Overall, in regard to masculine- and feminine-salient stressors, the stressors that we determined to have significant effects on men's internalizing mental health outcomes were financial strain, poor physical health, daily strain, and a perceived threat to personal safety and the safety of significant others. For women, these stressors were poor physical health, daily strain, and perceived threat of personal safety. Few factors predicted externalizing outcomes for men or women.

There were a few results that support my expected pattern of results. For example, increases in financial strain were met with increases in depression and anxiety for men, but not for women. This supports the idea that men may be more vulnerable to stress caused by financial strain, as this stressor is salient to their masculine identities and stereotypical roles as breadwinners. However, I also predicted that men may exhibit increased externalizing symptoms as a result of masculine-salient stressors, but increases in financial strain only saw increases in internalizing symptoms, not aggression or alcohol abuse.

In instances where I did not find the expected pattern of results, I do still find some intriguing results. I expected gender to moderate outcomes as a result of perceived threats to safety, but not in the way I found it. Specifically, I expected perceived threats to the safety of significant others to act as a feminine-salient stressor, whereas perceived threats to one's personal safety to act as a masculine-salient stressor. However, my results demonstrated the opposite effect – threats to the safety of one's significant others saw an increase in depression for men and no significant effect on women's mental health outcomes. Inversely, perceived threats to one's personal safety was more detrimental for women's internalizing outcomes, and also saw an increase in anxiety for men, but not depression. These overall results imply that I need to

reevaluate how I think of threats to personal safety and to the safety of one's significant others as potential threats to masculine or feminine roles or identities. Perhaps perceived threats to the safety of significant others acts as a masculine-salient stressor by indicating that men are failing to perform their roles as protectors of their loved ones; alternate interpretations should be considered when classifying stressors in the future.

While many of the measures were met with increases in internalizing mental health outcomes, they did not all align with the pattern of outcomes that I expected. Many of the examined stressors did not have effects that differed significantly by gender, but rather were met with similar increases in internalizing symptoms for both men and women. Poorer physical health and higher levels of daily strain led to significant increases in depression and anxiety for both men and women, indicating that perhaps these stressors are salient to the identities of both genders. This indicates that I may need to reconsider my classification scheme for stressors by including a gender-neutral category for stressors that are expected to have similar effects on the mental health of both men and women.

Conclusion

Using stress process, self-salience, and identity theory frameworks as my foundation, my study sought to examine stress, gender, and mental health from a new perspective. I expected that certain stressors were likely to be more salient to men than women and vice versa, and I expanded upon this idea by identifying two categories of gender-salient stressors: masculine-salient and feminine-salient stressors. My research involved exploring a theoretical integration of the differential vulnerability perspective with identity theory and the self-salience approach. Essentially, I examined the stress process and its outcomes to determine whether differential vulnerability manifests only within the gendered outcomes (i.e. internal versus external) or if new patterns emerge. A few of the results indicated the need to reevaluate my system of organizing stressors into masculine- and feminine- salient categories. More work in this area is needed in order to continue developing a classification scheme that fully captures the masculine- and feminine- nature of potential stressors.

Limitations and Implications for Future Research

First, this study is limited because the number of stressors I was able to examine was limited. The National Health, Well-Being, and Perspectives Survey did not capture the full range of relevant stressors identified by previous research. Ideally, future surveys could be designed to collect data on a full range of stressors in order to further study this topic. Second, it is possible that we need to develop a better way to determine what should be considered masculine- and feminine-salient stressors. Future studies could build on this by explicitly asking respondents to identify stressors they might classify as masculine or feminine. Surveys could also be designed to ask respondents about roles that they consider salient to their identities, in order to more

specifically study my theory that stressors affecting these roles will lead to more negative mental health outcomes. Third, we may also need to consider the existence of gender-neutral stressors – those that neither affect men nor women differentially. The results indicate that poor physical health and daily strain may be two stressors that we could consider potentially gender-neutral, as these stressors had no differential effects on men and women in my analysis.

Contributions

Previous research has largely examined gender differences relying primarily on internalizing outcomes, which are more likely to be exhibited by women. This results in women appearing more vulnerable to stressors, without considering that men may be exhibiting outcomes in different ways. With the inclusion of the externalizing outcomes of aggression and alcohol abuse, we expand the range of possible outcomes exhibited by respondents as a response to stressors. Overall, the measured stressors in my study had a larger impact on internalizing than externalizing for both men and women. Given what we know about the non-specific response to stress argument, however, including externalizing outcomes remains necessary when analyzing gender differences in mental health outcomes (Aneshensel, Rutter, and Lachenbruch 1991).

Ultimately, the present study contributes to the stress and mental health literature by emphasizing the importance of connecting vulnerability in stressors to personal salience of those stressors. My proposed idea suggests that more emphasis on stressors that threaten roles salient to individuals' masculine or feminine identities may reveal new information about gender differences in vulnerability to stress. Further research should pay more attention to outcomes and differential effects, as more work in this area is necessary to increase our understanding of the gender patterns evident in mental health responses to stress.

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