# HOME SWEET HOME? NEIGHBORHOOD COHESION OFFERS A COPING MECHANISM FOR GENDER DISCRIMINATION LINKED WITH PSYCHOLOGICAL DISTRESS

An Undergraduate Research Scholars Thesis

by

CHLOE HARRISON

Submitted to the Undergraduate Research Scholars program at Texas A&M University in partial fulfillment of the requirements for the designation as an

UNDERGRADUATE RESEARCH SCHOLAR

Approved by Research Advisor:

Dr. Adrienne R. Carter-Sowell

May 2020

Majors: Classics Philosophy

# TABLE OF CONTENTS

ABSTR	ACT	1
	Literature Review Thesis Statement Theoretical Framework Project Description	2
DEDICA	ATION	4
ACKNC	WLEDGMENTS	5
KEY W	ORDS	6
INTROI	DUCTION	7
CHAPT	ER	
I.	LITERATURE REVIEW	10
	Gender Discrimination Coping: Social Support Neighborhood Cohesion	11
II.	DATA AND METHODS	16
	Hypotheses Data and Methods Variables Analytic Technique	
III.	RESULTS	20
	Descriptive Statistics Psychological Distress Neighborhood Cohesion Neighborhood Cohesion and Psychological Distress	
DISCUS	SION AND CONCLUSION	
REFERI	ENCES	

#### ABSTRACT

Home Sweet Home? Neighborhood Cohesion Offers a Coping Mechanism for Gender Discrimination linked with Psychological Distress

> Chloe Harrison Department of Classics Department of Philosophy Texas A&M University

Research Advisor: Dr. Adrienne R. Carter-Sowell Department of Psychological and Brain Sciences and the Africana Studies Program Texas A&M University

#### **Literature Review**

Despite recent progress in the past few years gender discrimination is still an ongoing problem. Eric Grollman's work states that experiencing gender discrimination can have a negative impact on one's mental health causing stress and mental distress for the individual. It is important to examine how people cope with the added stress of facing gender discrimination. Leonard Pearlin's work argues that coping works to alter or handle the meaning of the situation from which stressors occur or to not allow stress to go out of a manageable reach. Neighborhood cohesion may act as a coping mechanism to alleviate the stress that comes with experiencing gender discrimination. Moreover, according to Elizabeth Brondolo, African Americans cope with racial discrimination through social networks, i.e. racial/ethnic identities have been shown to help an individual cope with racial discrimination. Social networks already function as a coping mechanism for racial discrimination, so then the question arises of if it could work as a coping mechanism for gender discrimination. I argue that social networks can impact the relationship between experiencing gender discrimination and the mental distress that is caused by the stress of experiencing discrimination.

#### **Thesis Statement**

Gender discrimination impacts mental health and neighborhood cohesion influences the relationship between gender discrimination and psychological distress by operating as a coping mechanism for the added stress caused by gender discrimination.

#### **Theoretical Framework**

Gender discrimination is a stressor. To address stressors individuals must have coping mechanisms so that the situation which caused the stress can change or not allow the stress to continue out of a controllable range (Pearlin 1989). I conceptualize neighborhood cohesion as a potential coping mechanism that will change or control the stress caused by gender discrimination. I use the Texas Diversity Survey (TDS) and my outcome variable is psychological distress, and my independent variables are race, education, neighborhood cohesion, gender discrimination, distress/Kessler 6 (K6 score), and gender.

#### **Project Description**

Understanding how the relationship between social networks, gender discrimination, and mental distress is vital to figuring out how women who face gender discrimination cope. Published studies, such as Zimmerman Carter-Sowell, & Xu (2016) examined how inclusive climates in the workplace are influenced by gender differences. For this project, the research examines the importance of coping with discrimination and what can be done to alleviate the added stress an individual is experiencing because of discrimination. It explores whether social

neighborhood cohesion, more precisely social networks, act as buffer for the relationship between gender discrimination and mental distress.

In order to explore this relationship, I used the Texas Diversity Survey; and the variables are psychological distress, using the Kessler 6 Scale, and the Likert-scale for neighborhood cohesion, and the average self-reported discrimination. The results demonstrated that women who reported higher levels of gender discrimination report worse mental health and more likely to experience psychological distress than women reporting lower levels of gender discrimination, and greater levels of neighborhood cohesion will decrease the likelihood of experiencing psychological distress, and that neighborhood cohesion did buffer the impact of gender discrimination on psychological distress.

# **DEDICATION**

I would like to dedicate my thesis to my sister, Faith, and my two cats, Richard and Binx. I thank her for her constant love and distractions. She believed and supported me throughout this project. I would also like to express my gratitude to my cats for sleeping all day while I worked.

# ACKNOWLEDGMENTS

I would like the acknowledge the Glasscock Center for their support in my participation of the Undergraduate Research Scholars Program. I would like to thank the Glasscock family, staff, and faculty. Thanks to Professors Verna M. Keith, Ph.D. and Mary E. Campbell, Ph.D. for serving as Principal Investigators on the Texas Diversity Survey. Lastly, but not least, I would like to thank Gabe Miller, Lincoln El-Amin, and my advisor, Adrienne Carter Sowell, Ph.D., for their help, advice, and support.

# **KEY WORDS**

Gender Discrimination Neighborhood Cohesion Social Cohesion Social Networks Social Support Psychological Distress

#### **INTRODUCTION**

Because of the Covid-19 pandemic, most people are now restricted to their homes and neighborhoods. These new restrictions mean that all non-essential workers work from home. People must now also social distance themselves from others, and because of this they may experience less social support. Although these new guidelines force many women to work from home or social distance, gender discrimination does not disappear, but instead will be more prevalent in the home. This new normal may cause added stress and mental distress for women. In addition to other stressors, women must also deal with the pandemic which may cause them to experience more stress than normal. Because of new guidelines and restrictions, women's previous coping mechanisms or strategies with dealing with gender discrimination may have been changed have become less effective. These changes to everyday life, coping mechanisms, and stressors suggest that neighborhood characteristics, such as neighborhood cohesion, matter more. Women may need an alternative coping mechanism to confront the added stress and psychological distress from gender discrimination that now is in their own homes and this new global pandemic. Neighborhood cohesion may be that coping mechanism that is more available for women limited to their homes and neighborhoods and for women whose previous coping mechanisms or strategies have altered or are not as effective because of these new limitations.

Despite recent progress in the past few years gender discrimination is still an ongoing problem. Laws have been enacted to help hinder gender discrimination and its effects, yet it and its effects remain today. Gender discrimination can lead to a loss of opportunities, unequal pay, and distress.

Experiencing gender discrimination can have a negative impact on one's mental health causing stress and mental distress for the individual (Carter-Sowell & Zimmerman, 2015; Grollman 2015). It is important to examine how people cope with the added stress of facing gender discrimination. Coping works to alter or handle the meaning of the situation from which stressors occur or to not allow stress to go out of a manageable reach (Pearlin 1989). Neighborhood cohesion may act as a coping mechanism to alleviate the stress that comes with experiencing gender discrimination. Moreover, African Americans cope with racial discrimination through social networks, i.e. racial/ ethnic identities have been shown to help an individual cope with racial discrimination (Brondolo 2009). Additionally, African American women living in poverty and having greater community cohesion, i.e. neighborhood cohesion, had significantly less-frequent substance use (Maclin-Akinyemi et al. 2019). Social networks already function as a coping mechanism for racial discrimination, so then the question arises of if they could work as a coping mechanism for gender discrimination. I argue that social networks can impact the relationship between experiencing gender discrimination and the mental distress that is caused by the stress of experiencing discrimination.

I argue social networks may be a coping mechanism for the added stress caused by gender discrimination which leads to mental distress. To test this, I use the Texas Diversity Survey (TDS), a telephone survey measuring racial attitudes and experiences of Black, Latinx, and White Texans from ages 18 and older (Keith and Campbell 2015). My outcome variable is psychological distress. My independent variables are race, education, neighborhood cohesion, discrimination with gender as the target, distress/ Kessler 6 (K6), and gender. Results show that women who report higher levels of gender discrimination are more likely to experience psychological distress, and greater levels of neighborhood cohesion decrease the likelihood of

experiencing psychological distress. Neighborhood cohesion's impact on the relationship between gender discrimination and psychological distress has mixed results, depending on the level of discrimination, neighborhood cohesion matters to a less degree impacting the relationship between neighborhood cohesion and the stress caused by gender discrimination, but the general trend is that neighborhood cohesion does buffer the impact of gender discrimination on psychological distress.

This study shows the relationship between gender discrimination and moderate psychological distress. Gender discrimination causes psychological distress in women who experience it. The study also demonstrated how neighborhood cohesion works as a coping mechanism because those who reported greater neighborhood cohesion had a decrease in psychological distress.

#### **CHAPTER I**

#### LITERATURE REIVIEW

#### **Gender Discrimination**

Discrimination can be defined as wrongful treatment based on individual and/or status characteristics (Thoits 2010). Discrimination is also a stressor (Thoits 2010). There are two type of discrimination behaviors: major events, i.e. being fired or refused a promotion at a job, and day-to-day discrimination, i.e. everyday harassment or threats (Thoits 2010). Major discrimination takes place at any time and may impede social and economic achievement along with lifelong consequences (Tuner and Avison 2003). Those who experience any form of discrimination are more likely to have depressive symptoms and worse overall self-rated health (Grollman 2015). Experiencing discrimination can also lead to anxiety about potential future discrimination, which then leads to the stressor heighted vigilance (Schnittker and McLeod 2005). Heighted vigilance refers to the chronic psychological awareness resulting from threat of possible violence and discrimination; and it affects health by leading to deficiency of physical and mental energy because of the constant monitoring of out-group members (Schnittker and McLeod 2005). Because discrimination is often experienced by those of low status in society, such as women, racial and ethnic minorities, individuals with lower socioeconomic status, and other marginalized communities, there tends to be lower levels of coping resources to help manage the stress caused by discrimination (Thotis 2010).

Women are more distressed and more burdened than men by daily hassles and provided with fewer resources to cope (Kessler and McLeod 1984). Women who reported perceived discrimination were more likely to report clinical depression, poorer mental functioning and life

satisfaction (Hackett et al. 2019). Women who had frequent exposure to sexist events; i.e. gender discrimination, had more symptoms of anxiety, depression, and somatization (stressed-related physical symptoms) than men, and those women also had more symptoms than other women who did not experience exposure to gender discrimination (Klonoff et al. 2000). Gender discrimination accounts for women's higher rate of symptoms of depression, anxiety, and somatization (Landrine et al. 1995).

#### **Coping: Social Support**

Social networks function as social support which serve as mediators between the added stress that gender discrimination creates and subsequent mental distress. Mediators operate to manage the effects of stressors on stress outcomes (Pearlin 1989). Social networks are defined as "the quality and quantity of social interactions with family members, friends, and acquaintances, measured via frequencies of mutual visits in the neighborhood or phones calls" (Schiefer and Noll 2017). Inadequate social interaction can also threaten need-satisfaction, goal-attainment, and how well the social system works for the individual (Aneshenel 1992). Social networks work as a coping mechanism because they provide social support, which acts as a stress-buffer. Coping strategies are defined as "behavioral or cognitive attempts to manage situational demands that one perceives as taxing or exceeding one's ability to adapt" (Thoits 1999). Social networks are sustained by interactions with the people in the networks, directly or indirectly; without interactions, the social networks disintegrate (Lin et al. 1999). Stress-buffering is an important part of coping behavior and is when a resource, e.g. social networks/ support, weakens the effect exposure to stress has on an individual (Aneshenel 1992). Social ties are associated to well-being for people under stress and operate via a stress buffering mechanism (Kawachi and Berkman 2001).

Social support can be defined as the availability of a network for members who show care, love, and concern and give coping assistance to an individual (Brondolo 2009). Social support is an important social coping resource and is composed of emotional, informational, or practical aid with stressors from family and or friends (Thoits 1999).

Social support, especially emotional and broad-based support that an individual has access to and can summon when needed, weakens the impact life stress has on mental distress (Kessler 1985). Social support acts as a coping mechanism in three ways: first, to improve health by meeting basic social needs, such as affection, social contact, and security; second, healthy relationships reduce stress by reducing conflict and tensions and by increasing social ties; and third, social ties act as a buffer to defend the individual from stress (Williams 1991). There are three aspects of social support: perceived versus actual support, instrumental versus emotional, and routine versus crisis support (Lin et al. 1999). Perceived support is the perception of available support when an individual need it. Actual support is the nature and the frequency of support actions between individuals. Emotional support is the use of social relations to vent, want understanding, build self-esteem, and share feelings. Instrumental support is the tangible help from individuals, i.e. helping with chores, watching children, etc. Routine support is the process through which support is received or perceived by the individual relative to the day-today activities. Crisis support is the process through which support for an individual is received or perceived when the individual is in a crisis situation and or event.

The interpersonal resources, e.g. spouse, close friendship, etc., act as a buffer to stressful events (Cohen and Wills1985). Perceived and or received support may reduce the negative emotional response to a stressful situation or diminish the physiological and or behavioral reaction to stress (Kawachi and Berkman 2001). Perceiving that others are able and will

contribute resources, i.e. perceiving social support, may reconsider the potential harm of a situation and/or cushion one's own perceived ability to cope with imposed demands and thus prevent a situation from being thought of as highly stressful (Cohen and Wills 1985). Perceived social support is effective in resisting distress and helps people manage their mental health when experiencing stressful life events (Lin et al. 1999).

Social support is associated with lower levels of depressive symptoms in women, while neighborhood stressors such as, physical disorder, decay, lower perceived violence, disorder, greater reciprocal exchange, social cohesion, more proportions of married couples/ fewer single mothers, and more residential stability, were associated with high levels of depressive symptoms in both men and women (Mair 2010). Social support, e.g. social participation, network contacts, intimate relations, and functional supports, i.e. instrumental and expressive support, maintains mental health (Lin et al. 1999). Social support does act as a beneficial function against depressive symptoms to stressful life events (Bell et al. 1982). Neighborhood social support is also associated with lower depressive symptoms for women (Mair 2010).

#### **Neighborhood Cohesion**

Social networks work to alleviate the stress caused by gender discrimination. Social networks are an aspect of social cohesion. Social cohesion or neighborhood cohesion is defined as "...the willingness of members of a society to...freely choose to form partnerships and have a reasonable chance of realizing goals and share the fruits of their endeavors [so that they are able to survive and thrive]" (Stanley 2003). Social cohesion has six dimensions: social relations, identification, orientation towards the common good, shared values, quality of life, and (in)equality (Schiffer and Noll 2017). Social relations are what make people stay in their group and it is the quailing and the strength of people's relationships with others (Schiffer and Noll

2017). It relies on the willingness and the capacity in the population (Stanley 2003). It also requires mutual tolerance between cultural, ethnic, sexual orientation, etc. groups (Schiffer and Noll). A sense of belonging together involves social interactions, trust and willingness to participate and help (Schiffer and Noll 2017). Orientation towards the common good entails responsibility for the common good and the compliance to social rules and order (Schiffer and Noel). (In)equality is defined as "(un)equal distribution of [...] material and immaterial resources [such as employment, income, education, etc.] and (in)equality between people in terms of cultural, ethnic, religious, and social background" (Schiffer and Noll 2017). Overall, neighborhood social cohesion is the sum of a population's willingness to cooperate with each other in the complex set of social relations needed by individuals to complete their life and a socially cohesive society is a population which has sufficient social cohesion to sustain that set of social relations beyond at least the average life span of those in the population. (Stanley 2003).

Neighborhood cohesion is also a part of social trust. Social trust is the assumption that other's behavior is predictable and leads by a positive intention and it functions to encourage cooperation, unity, and identification (Schiefer and Noll 2017). There is a relationship between the level of distrust and mortality rates; lower levels of social trust were associated with higher rates of coronary heart disease, malignant neoplasms, cerebrovascular disease, unintentional injury, and infant mortality, all major causes of death (Kawchi and Berkman 2000). Neighborhood problems are associated with diminished mental health including, depression, and unhealthy behaviors such as smoking and alcohol use, and little exercise (Echeverria et al. 2008). Those living in areas with low socio-economic status reported more problems with their neighborhood (i.e. less social cohesion, health behaviors, such as cigarette smoking, alcohol consumptions, and amount of physical activity, and diet, lower self-rated health, less

psychological well-being, and physical function) and significant psychological distress (Steptoe and Feldman 2001). A sense of belonging to a neighborhood is associated with better physical and mental health, lower stress, better social support and being physically active (Young et al. 2004).

Although there is little literature to support social networks operating as a coping mechanism for gender discrimination, social networks already functions to reduce the effect the stress of racial discrimination has on individuals who experience it; so it could also work as a coping mechanism for those who experience gender discrimination because they provide social support for individuals which lessens the effect of the added stress.

#### CHAPTER II

#### **DATA AND METHODS**

#### Hypotheses

My overall research questions are, 1) how does gender discrimination impact mental health, and 2) how does neighborhood cohesion impact the relationship between gender discrimination and psychological distress? Based on these questions and the reviewed literature, I hypothesize the following:

*Hypothesis 1*: Women who report higher levels of gender discrimination will report worse mental health and be more likely to experience psychological distress than women reporting lower levels of gender discrimination

*Hypothesis 2*: Greater levels of neighborhood cohesion will decrease the likelihood of experiencing psychological distress.

*Hypothesis 3*: Neighborhood cohesion will buffer the impact of gender discrimination on psychological distress.

#### **Data and Methods**

I use the Texas Diversity Survey (TDS), a telephone survey measuring racial attitudes and experiences of Black, Latinx, and White Texans from ages 18 and older (TDS, Keith and Campbell 2015). The Public Policy Research Institute at Texas A&M University administered the survey. Black and Latinx respondents were oversampled on order to allow for in-depth examination of how race/ethnicity of the person is related to various beliefs and experiences. Data were weighted to address oversampling with weights made from the 2014 American

Community Survey population estimates by age, race, and sex. Only respondents who had valid data on all variables included in each model, using listwise deletion for respondents who had missing data. 9,405 numbers were contacted with 1,323 respondents completing the survey. The completion rate was 14%. 33% requested follow-up calls but did not complete the survey, 2% terminated the call early, and 51% refused participation. Surveys conducted in this nature are led by cell phone responses that have low response rates. But They include parts of the population that are hard to reach with landline phone surveys including the employed, people of color, and younger respondents (Link et al. 2007).

#### Variables

*Psychological Distress*. My outcome variable is psychological distress, a measure based on six variables. The six variables ask whether individuals felt everything is an effort, hopeless, nervous, restless, sad, and/or worthless, within the last 30 days. These six variables have attributes of either none of the time (0), a little of the time (1), some of the time (2), most of the time (3), and all of the time (4). The responses are added as a scale to measure psychological distress with scores beginning with a 0 and ending at a 24. The scale was developed by Ronald C. Kessler and is known as the Kessler 6 Scale (K6) (Kessler 2002). This scale is used to measure distress in three ways: the first, moderate distress, a dichotomous measure which identifies individual whose score is between 5 and 12 (Prochaska et al. 2012); the second is severe distress, which is a dichotomous measure coded 1 for a yes if the individual had a score of 13 or more; and the third, psychological distress as a count variable, with scores ranging from 0-24.

Self-Reported Gender Discrimination. Average self-reported discrimination measures the self-reported frequency of discrimination ranging from never experiencing gender discrimination

to experiencing discrimination almost every day. The scaling was developed from The Everyday Discrimination Scale by Williams (Williams et al. 1997). The scale contains ten questions measuring the everyday experiences of discrimination. The questions are "1) You are treated with less courtesy than other people; 2) You are treated with less respect than other people; 3) You received poorer service than other people at restaurants and stores; 4) People act as if they think you are not smart; 5) People act as if they are afraid of you; 6) People act as if they think you are dishonest; 7) People act as if they're better than you are; 8) You are called names and insulted; 9) You are threatened or harassed; 10) You are followed around in stores". The responses of the 10 questions were averaged to have a single self-reported discrimination value between a 0 (no experiences of discrimination) to a 5 (almost every day experiences of discrimination).

*Neighborhood Cohesion*. Neighborhood cohesion measures how much individuals agree that their neighborhood is close-knit, there are people in the neighborhood they can count on, people in the neighborhood can be trusted, people in the neighborhood help each other out, and is built from four Likert scale items. The four items are dichotomized; if they answered they definitively or somewhat disagree, then it was coded as a zero and if they answered definitively or somewhat agree, they were coded as a one. When the items are combined, it generates a scale ranging from 0-4. *Controls.* I control for race, coded as Black, Latino, Multi-Racial and White, and education category, coded as Less than High School, High school or GED, Post-High school, no 4-Year Degree, 4-Year Degree, Post 4-Year Degree.

#### **Analytic Techniques**

I tested the Models using Logistic Regression and Negative Binomial Regression. First, I tested the relationship between the average self-reported gender discrimination and the predicted probability for moderate distress, severe distress, and the sum of the distress (K6) scores, controlling for race and education. Second, I tested the relationship between neighborhood cohesion and moderate distress. Third, I tested the relationship of neighborhood cohesion on the relationship between moderate distress, severe distress, and the sum of the distress (K6) scores.

# CHAPTER III

### RESULTS

*Descriptive Statistics*. Table 1 shows the weighted and unweighted distributions of key variables. Of the 1,322 respondents, my sample is 45% White, 23% Black, 23% Latino; and 9% Multiracial (weighted proportions are also shown). On average, 36% of women meet the criteria for moderate distress, and 4% meet the criteria for severe distress. The total distress was 4.16 out of 27. Neighborhood cohesion on average was at a 2.58 out of a 4.00. The average reported gender discrimination was at 35%. About 10.387% of women had less than high school education, 13.19% had high school education, 34.75% had post high school but no four-year degree education, 26.4% had a four-year degree, and 15.29% had post a four-year degree education.

# Table 1. Descriptive Statistics

	Unweighted	Weighted
Race		
White	45%	42%
Black	23%	13%
Latino	23%	33%
Multiracial	9%	12%
Moderate Distress	35%	36%
Severe Distress	5%	4%
Total Distress (0-24)	4.17	4.16
Neighborhood Cohesion (0-4)	2.61	2.58
Reported Gender Discrimination (0-5)	0.31	.035
Education Less Than High School	8%	10.37%
High School Post High School- No 4-Year Degree	13.24% 33.5%	13.19% 34.75%
4-Year Degree	27.65%	26.4%
Post 4-Year Degree	17.5%	15.29%

## **Psychological Distress**

The relationship between average self-reported gender discrimination and psychological distress is as expected.

*Moderate Distress*. Model 1 in Table 2 tests the zero-order relationship between self-reported discrimination and moderate psychological distress. Increasing levels of self-reported discrimination are significantly associated (b=1.57, p < 0.05) with a greater likelihood of meeting the criteria for moderate distress. This association holds in subsequent Models 2-3 (b=1.76, p < 0.05). Race and education do not render significant effects.

parentheses. Moderate Distress			
	Model 1	Model 2	Model 3
Average Self-Reported	1.57*	1.77*	1.76*
Discrimination	(.604)	(.422)	(.423)
Race-Black		1.62	1.64
		(.558)	(.569)
Race-Latino		.88	.77
		(.289)	(.277)
Race-Multi-Racial		.44	.46
		(.223)	(.240)
Education-High School or GI	ED		1.06
			(.713)
Post-High School, no 4-Year			1.03
Degree			(.645)
4 Year Degree			.93
			(.581)
Post 4-Year Degree			.52
			(.354)

Notes: N=1,322. \*\*p<0.01, \*p<0.05. Dependent Variable= Moderate Distress. Coefficients are odds ratios. Standard error is on

# **Table 2**. Average Self-Reported Discrimination and Moderate Distress

Figure 1 presents the predicted probability of meeting the criteria for moderate distress by average self-reported gender discrimination. For every unit increase in self-reported discrimination, the odds of meeting the criteria for moderate distress increase by 11.69%. This translates to a 50.00% increase in the odds of meeting the criteria for moderate distress between those who report on average no gender discrimination and those who report on average discrimination occurring almost every day (scoring 88.78 instead of 38.78), net of the effects of all the control variables.

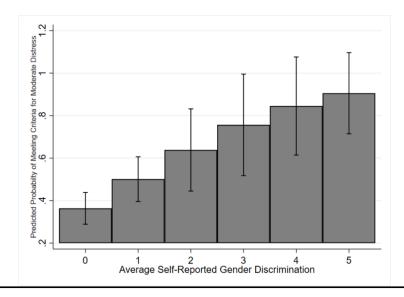


Figure 1. Predicted probability of meeting criteria for Moderate Distress by Average Self-Reported Discrimination. All variables in the model are set to their means. Bar represent 95% Confidence Intervals.

Sum of the Distress K6 Scores. Model 1 in Table 3 tests the zero-order relationship between self-reported discrimination and the sum of the distress K6 scores. Increasing levels of self-reported discrimination are significantly associated (b= .14, p<0.05) with greater likelihood of meeting the criteria for the sum of the distress scores. This association holds in subsequent Models 2-3, and the relationship becomes more robust (b= .19, p<0.01). Race and education do render significant effects.

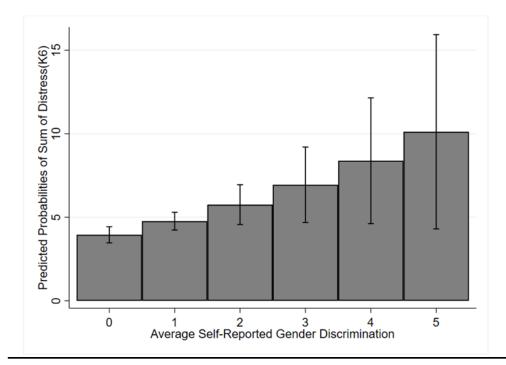
Sum of Distress (K6)			
Scores			
	Model 1	Model 2	Model 3
Average Self-Report	0.14*	.167**	.19**
Discrimination	(.059)	(.061)	(.065)
Race-Black		.315*	.33*
		(.13)	(.129)
Race-Latino		.04	13
		(.123)	(.131)
Race-Multi-Racial		027	.02
		(.203)	(.195)
Education- High School			38
or GED			(.226)
Post-High School, no 4-			51*
Year Degree			(.208)
4 Year Degree			44*
			(.195)
Post 4-Year Degree			96***
			(.229)

Notes: N=1,322. \*\*p<0.01, \*p<0.05. Dependent Variable= Severe Distress. Coefficients are odds ratios. Standard error is on

Table 3. Average Self-Reported Discrimination and Sum of Distress (K6) Scores

parentheses.

Figure 2 presents the predicted probability of the sum of the distress K6 scores by average self-reported gender discrimination. For every unit increase in self-reported gender discrimination, the predicted sum of the distress K6 scores increases by 0.83%. This translates to a 6.17% increase the sum of the distress score between those who report on average no gender discrimination and those who report on average discrimination occurring almost every day (scoring 3.95 instead of 10.12), net of the effects of all the control variables.

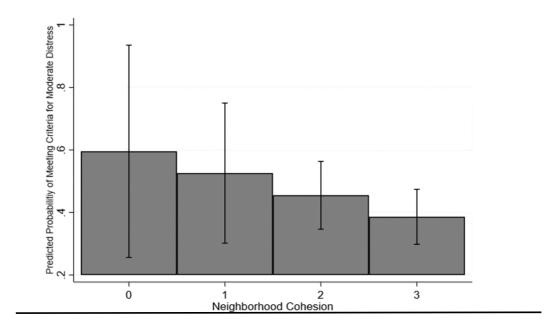


**Figure 2**. Gender Discrimination and Predicted Value of Sum of Distress(K6). All variables in the model are set to their means. Bar represent 95% Confidence Intervals.

*Severe Distress*. The relationship between average self-reported gender discrimination and severe distress lacked significance.

#### **Neighborhood Cohesion**

Figure 3 presents the predicted probability of meeting criteria for moderate distress by average self-reported neighborhood cohesion. For every unit increase in the average self-reported neighborhood cohesion, the predicted probability of meeting the criteria for moderate distress decreased by 8.69%. This translated to a 27.85% decrease in the predicted probability of meeting the criteria for moderate distress between those who report on average no neighborhood cohesion and those who report highest neighborhood cohesion (scoring 39.49 instead of 67.34), net of the effects of all control variables.



**Figure 3.** Predicted probability of meeting criteria for Moderate Distress by Average Self-Reported Neighborhood Cohesion. All variables in the model are set to their means. Bar represent 95% Confidence Intervals.

#### **Neighborhood Cohesion and Psychological Distress**

The relationship between psychological distress and average self-reported neighborhood cohesion was as expected.

*Moderate Distress*. Model 5 in Table 4 test the zero-order relationship between selfreported neighborhood cohesion and moderate psychological distress. Increasing levels of selfreported neighborhood cohesion are significantly associated (b= 2.5, p<0.05) with a lesser likelihood of meeting the criteria for moderate distress. Race and education do not render significant effects. Figure 4 presents the predicted probability of meeting the criteria for moderate distress by average self-reported neighborhood cohesion.

	Model 1	Model 2	Model 3	Model 4	Model 5
Average Self-	1.48	1.50	1.66	1.63	2.5*
Report	(.313)	(.363)	(.449)	(.442)	(.967)
Discrimination					
Average Self-		.724	.74	.75	.77
Reported		(.183)	(.199)	(.203)	(.282)
Neighborhood					
Cohesion					
Race-Black			1.68	1.72	1.82
			(.634)	(.661)	(.715)
Race-Latino			.80	.73	.751
			(.283)	(.276)	(.292)
Race-Multi-			.29	.29*	.26*
Racial			(.175)	(.180)	(.167)
Education-High				1.32	.86
School or GED				(.941)	(.606)
Post-High				1.49	1.19
School, no 4-				(1.008)	(.802)
Year Degree					
4 Year Degree				1.25	.99
				(.84)	(.66)
Post 4-Year				.65	.52
Degree				(.479)	(.392)

**Table 4.** Average Self-Reported Gender Discrimination and Average Self-ReportedNeighborhood Cohesion on Moderate Distress

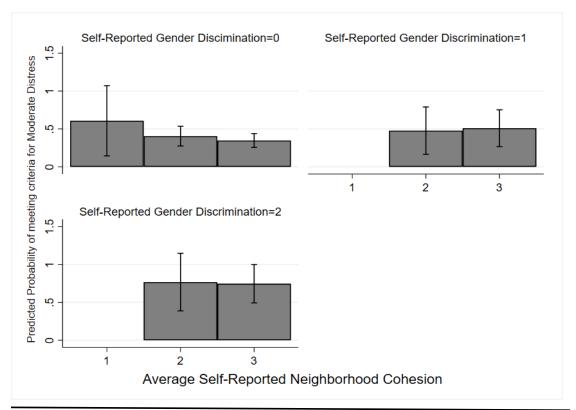
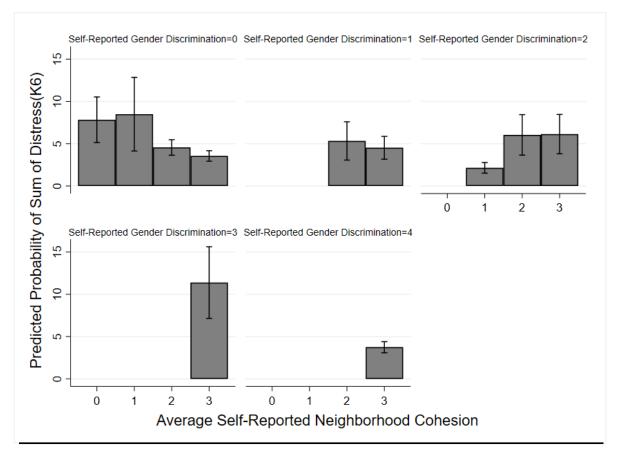


Figure 4. Neighborhood Cohesion and Predicted Probability of Moderate Distress. All variables in the model are set to their means. Bar represent 95% Confidence Intervals.

*Sum of Distress K6 Score*. Model 2 in Table 5 test the zero-order relationship between self-reported neighborhood cohesion and the sum of the distress K6 scores. Increasing levels of self-reported neighborhood cohesion are significantly associated (b= .147, p<0.05) with a lesser likelihood of meeting the predicted probability of the sum of the distress K6 scores. This association holds in subsequent Models 3-4 (b= .18, p < 0.05). Race and education do not render significant effects. Figure 5 presents the predicted probability of meeting the criteria for sum of the distress scores by average self-reported neighborhood cohesion.

	Model 1	Model 2	Model 3	Model 4	Model 5
Average Self-	.11	.147*	.17*	.18*	.01
Reported	(.058)	(.07)	(.07)	(.076)	(.028)
Discrimination					
Average Self-		32***	33***	27***	26***
Reported		(.085)	(.093)	(.09)	(.073)
Neighborhood					
Cohesion					
Race-Black			.29*	.31*	.3*
			(.133)	(.133)	(.141)
Race-Latino			02	19	16
			(.133)	(.139)	(.145)
Race-Multi-			21	19	28
Racial			(.212)	(.211)	(.22)
High School				38	45
Diploma or				(.237)	(.243)
GED					
Post- High				44*	47*
School, no 4-				(.219)	(.215)
Year Degree					
4-Year Degree				41*	42*
				(.203)	(.205)
Post 4-Year				88***	88***
Degree				(.24)	(.247)

**Table 5.** Average Self-Reported Gender Discrimination and Average Self-ReportedNeighborhood Cohesion on Sum of Distress (K6) Scores



**Figure 5.** Neighborhood Cohesion and Predicted Probability of Sum of Distress. All variables in the model are set to their means. Bar represent 95% Confidence Intervals.

#### **DISCUSSION AND CONCLUSION**

Gender discrimination persist to this day. For those who experience gender discrimination, they can also experience stress and mental distress because of gender discrimination's negative effect on mental health. Gender discrimination's negative impact on mental health and stress is why it is important to understand how people function with the added stress which can lead to mental distress. People who face gender discrimination use coping mechanisms to handle the negative effects. Neighborhood cohesion acts as a coping mechanism. This work was presented at the Undergraduate Research Symposium, on February 28, 2020 (Harrison 2020).

Overall, results suggest neighborhood cohesion does work to reduce the likelihood of experiencing psychological distress as a result of gender discrimination. Moreover, the relationship between the sum of the distress scores and self-reported gender discrimination was that as the average self-reported gender discrimination increased so did the predicted values of the sum of the distress scores. Increased self-reported neighborhood cohesion worked to decrease the predicted probability of meeting the criteria for moderate distress. The same relationship existed for the sum of the distress scores and neighborhood cohesion, in that when self-reported neighborhood cohesion was highest the sum of the distress scores caused by gender discrimination decreased.

However, the sample size from the data is small and only includes Texan residents. The study was also lacking in data as when controlling for age when testing the relationship of neighborhood cohesion on the relationship between moderate distress, severe distress, and the sum of the distress (K6) scores there was no significance. More research is needed to investigate

neighborhood cohesion and its effects on psychological distress. Still the results of study should not be ignored as they can initiate further research into the subject.

Because gender discrimination is still an everyday experience for women, it is important to look at relationships that decreases the negative results of gender discrimination. Neighborhood cohesion offers the social support needed to alleviate adverse effects of gender discrimination, so neighborhood cohesion has an important role in the coping strategies of women. Overall, neighborhood cohesion does work to lessen the impact of psychological distress caused by gender discrimination because it provides social support for the individual allowing them to cope with the added stress.

Also, with the recent Covid-19 pandemic and the social distancing and work from home guidelines, more people are restricted to their neighborhoods. This does not mean that gender discrimination in the workplace has ceased. Now women face gender discrimination in their homes as they work from home. Women may find, especially with the recent social distancing and working from home measures, gender discrimination in their safe spaces. This may cause adverse effects with added stress and mental distress. Not to mention, the added stress from having to confront a global pandemic. Given these changes neighborhood cohesion matters so much more now than before as women will need a coping mechanism to handle the added stress and psychological distress. Also, with people now restricted to their neighborhoods and homes, neighborhood cohesion may be a more readily available coping mechanism that women can rely on.

Social networks offer social support to individuals. Social support mediates stress and mental distress. Social support may be necessary moving forward as people handle the Covid-19 pandemic and women face gender discrimination in their homes.

Neighborhood cohesion is a coping mechanism and is especially important now as people are restricted to their homes and neighborhoods and face increased stress in their personal spaces. It is important for women as they combat gender discrimination in their homes as they work from home. However, women who do have greater neighborhood cohesion may be able to offset these effects of working from home and dealing with a pandemic.

This study demonstrated the relationship between gender discrimination and moderate psychological distress. Gender discrimination causes psychological distress in the individual who experiences it. It also showed how neighborhood cohesion functions as a coping mechanism because those who experienced greater neighborhood cohesion had a decrease in psychological distress.

#### REFERENCES

- Aneshensel C. S. (1992). Social stress: theory and research. *Annual Review of Sociology*, *18*, 15-38, <u>https://doi.org/10.1146/annurev.so.18.080192.000311.</u>
- Bell, R. A., LeRoy, J. B., & Stephenson, J. J. (1982). Evaluating the mediating effects of social support upon life events and depressive symptoms. *Journal of Community Psychology*, 10, 325-340.
- Brondolo E., Brady ver Halen, N., Pencille, M., Beatty, D., & Contrada, R. J., (2009). Coping with Racism: A selective review of the literature and a theoretical and methodological critique. *Journal of Behavioral Medicine*, *32*, 64-88. doi:10.1007/s10865-008-9193-0.
- Carter-Sowell, A. R. & Zimmerman, C. A. (2015). Hidden in plain sight: Locating, validating, and advocating the stigma experiences of women of color. *Sex Roles: A Journal of Research*, *73*, 399-407.
- Cohen, S. & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310-357.
- Echeverria, S., Diez-Roux A.V., Shea, S., Borrell, L. N., & Jackson, S. (2008). Associations of neighborhood problems and neighborhood social cohesion with mental health and health behaviors: The Multi-Ethnic Study of Atherosclerosis. *Health and Place*, 14, 853-865. <u>https://doi.org/10.1016/j.healthplace.2008.01.004.</u>
- Grollman, E. A, (2015). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*, 199–214, https://doi.org/10.1177/0022146512444289.
- Hackett, R. A., Steptoe, A., & Jackson, S. E. (2019). Sex discrimination and mental health in women: a prospective analysis. *American Psychological Association*, 38, 1014-1024, <u>http://dx.doi.org/10.1037/hea0000796</u>.
- Harrison, C. (2020, February 28). *Home sweet home? neighborhood cohesion offers a coping mechanism for gender discrimination linked with psychological distress.* Presented at the Undergraduate Research Symposium, Texas A&M University, College Station, TX.

Kawachi, I. & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban Health*, 78, 458-467.

Keith, V. M., Campbell, M. E. (2015). "Texas Diversity Survey". College Station: Texas A&M University.

- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L., Walters, E. E., Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959-976. <u>https://doi.org/10.1017/S0033291702006074.</u>
- Kessler, R. C. & McLeod, J. D. (1984). Sex difference in vulnerability to undesirable life events. *American Sociological Review*, 49, 620-631.
- Kessler, R. C., Price, R. H., & Wortman, C. B. (1985). Social factors and psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology*, *36*, 531-572, doi: 10.1146/annurev.ps.36.020185.002531.
- Klonoff, E. A, Landrine, H., & Campbell, R. (2000). Sexist discrimination may account for wellknown gender differences in psychiatric symptoms. *Psychology of Women Quarterly*, 24, 93-99.
- Landrine, H., Klonoff, E. A., Gibbs, J., Manning, V., & Lund, M. (1995). Physical and psychiatric correlates of gender discrimination. *Psychology of Women Quarterly*, 19, 472-492.
- Lin, N., Ye, X., Ensel, W. M. (1999). Social support and depressed mood: A structural analysis. *Journal of Health and Social Behavior*, 40, 344-359.
- Link, M., Battaglia, M., Frankel, M., Osborn, L., & Mokdad, A. (2007). "Reaching the US cell phone generation: comparison of cell phone survey results with an ongoing landline telephone survey." *Public Opinion Quarterly*, *71*, 814–839.
- Maclin-Akinyemi, C., Thurston, I. B., Howell, K. H., Jamison, L. E., & Anderson, M. B. (2019). The protective roles of ethic identity and community cohesion on substance use among Black women experiencing adversity. *Journal of Ethnicity in Substance Abuse*, 1-16, <u>https://doi.org/10.1080/15332640.2019.1622477</u>.

- Mair C., Diez Roux, A. V., & Morenoff, J. D. (2010). Neighborhood stressors and social support as predictors of depressive symptoms in the Chicago Community Adult Health Study. *Health and Place*, *16*, 811-819, doi: <u>https://doi.org/10.1016/j.healthplace.2010.04.006</u>.
- Pearlin, L. (1989). The sociological study of stress. *American Sociological Association*, *30*, 241-256, <u>https://www.jstor.org/stable/2136956</u>.
- Prochaska, J. J., Sung, H. Y., Max, W, Shi, Y, & Ong, M. (2012). Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization. *International journal of Methods in Psychiatric Research*, *2*, 88–97.
- Stanley D. (2003). What do we know about social cohesion: The research perspective of the federal government's social cohesion research network. *The Canadian Journal of Sociology*, 28, 5-17. <u>https://www.jstor.org/stable/3341872</u>.
- Schiefer, D. & Noll, J. van der. (2017). The essentials of social cohesion: A literature review. *Social Indicators Research*, *132*, 579-603, doi: 10.1007/s11205-016-1314-5.
- Schnittker J. & McLeod J. D, (2005). The social psychology of health disparities. *Annual Review* of Sociology, 31, 75-103. <u>https://doi.org/10.1146/annurev.soc.30.012703.110622.</u>
- Steptoe, A. & Feldman, P. J, (2001). Neighborhood problems as sources of chronic stress: Development of a measure of neighborhood problems, and associations with socioeconomic status and health. *Annuals of Behavioral Medicine*, 23, 177-185. <u>https://doi.org/10.1207/S15324796ABM2303\_5</u>.
- Thoits, P. A. (1999). Sociological approaches to mental illness. In A. F. Horwitz, & T. L. Scheid (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (pp. 106–124). Cambridge, UK: Cambridge University Press.
- Thoits, P. A. (2010). Stress and Health: Major Findings and Policy Implications. *Journal of Health and Social Behavior*, *51*(1\_suppl), S41–S53. <u>https://doi.org/10.1177/0022146510383499</u>.

- Williams, D. R. & House J. S. (1991). Stress, social support, control and coping: A social epidemiological view. In B. Badura & I. Kickbusch (Eds.), *Health Promotion Research: Towards a New Social Epidemiology* (pp. 160-173), 37. Copenhagen, WHO Regional Publications European.
- Williams, D. R., Yan, Y, & Jackson, J. S. (1997). Racial differences in physical and mental health: Socio-economic status, stress, and discrimination. *Journal of Health Psychology*, 2, 335-351.
- Young, A. F., Russel A., & Powers, J. R., (2004). The sense of belonging to a neighborhood: Can it be measured and is it related to health and well-being in older women. *Social Science and Medicine*, *59*, 2627-2637. <u>https://doi.org/10.1016/j.socscimed.2004.05.001</u>
- Zimmerman, C. A., Carter-Sowell, A.R., & Xu, X. (2016). Examining workplace ostracism experiences in academia: Understanding how gender differences in the faculty ranks influence inclusive climates on campus. *Frontiers in Psychology, section Organizational Psychology*, 7. doi: 10.3389/fpsyg.2016.00753