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### The Moderating Role of Social Support in Stigma and Symptoms of Anxiety and Depression

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The Moderating Role of Social Support in Stigma and Symptoms of Anxiety and Depression.

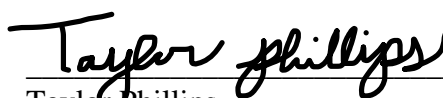
by

Taylor Phillips

An Undergraduate Thesis Submitted in Partial Fulfillment

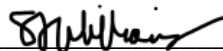
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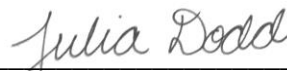
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Taylor Phillips



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Dr. Stacey Williams, Thesis Mentor



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Dr. Julia Dodd, Reader

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### **Abstract**

In this study, we examine the relationship between having a support system and the stigma individuals face with depression and anxiety symptoms. The aim of this study was to examine if having a support system acts as a buffer between perceived stigma and mental health symptoms. For this study, I conducted an online survey to measure symptoms of depression and anxiety, experiences with both perceived and internalized stigma, and social support. While 93 total participants engaged in the survey, only 52 fully completed the survey and passed two attention-check questions to ensure no invalid participation (e.g., BOTS) were present. In order to test the study hypothesis, two moderated regression analyses were conducted. Results revealed that both perceived stigma and internalized stigma were significantly and positively related to anxiety and depressive mental health symptoms. However, social support was significantly and negatively related to mental health symptoms only in the model with perceived but not internalized stigma. Finally, no significant interactions between either stigma and social support were found, indicating that social support did not buffer the negative impact of either forms of stigma. Importantly, this study was limited by a small sample size that could have prohibited finding significant results.

## Stigma

Stigma can be proposed as a characteristic of persons which is contrary to a norm of social unit. A social norm can be defined as a “shared belief that a person ought to behave in a certain way at a certain time” (Stafford & Scott, 1986). Stigma can be described as a negative idea or attitude about a person or group of people with mental, physical, or social features. Basically, implying there is a social disapproval which can then lead to negative effects like discrimination (Corrigan, 2005). Rose (2021) states that there are many types of social stigmas, although mental health tends to be very common. Stigma impacts an individual’s mental health by inflicting additional harm on those who are already vulnerable. Stigma can also affect a person’s identity, as it takes over their identity, they will begin to internalize the stigmatizing labels. Those already suffering from mental health issues can experience anxiety. A stigmatizing social environment amplifies this anxiety. Both stigma and anxiety are based on fear, and it’s typically based on the fear of the unknown (Rose, 2021).

Signs of stigma includes but is not limited to, using labels to exclude certain people or groups, making jokes about a physical or mental health condition, making assumptions about an individual based on their condition, and purposely giving an individual or group different treatment that is isolating or destructive, due to a mental or physical feature. There is a stereotype that people with severe mental illness are considered to be a violent threat and could snap at any moment The impact of stigma on an individual’s life can be understood in terms of three components: 1) Experienced stigma, referring to the day-to-day experiences of stereotypes, prejudice and discrimination from others, 2) anticipated stigma, the expectation to be a target of a stereotype, prejudice or discrimination, and 3) internalized stigma, which is the application of

mental illness stigma to oneself such as believing that they are dangerous to others or they are incompetent (Fox, 2017).

A common idea to prevent stigma is to educate others, and this decreases the blame put on individuals, because the mental illness is a genetic disorder. However, this method is not supported for getting rid of stigma, because others are more likely to believe those with mental illnesses aren't expected to get better. From the interview with Corrigan, he states that he was able to find the best way to tear down stigma, which is through social situations. He proclaims we should do this by creating contact between people with mental illnesses and the rest of society as a peer (Speaking Psychology, 2022).

### **Perceived Stigma**

Perceived stigma is the awareness of public stigma, or a belief that others have made assumptions about and hold stigmatizing opinions that are stereotypes about a certain condition (Barney, Griffiths, Jorm, & Christensen, 2006; Corrigan, Watson, & Barr, 2006). Ultimately, perceived stigma typically occurs when an individual believes the people around them or the society as a whole, would judge them for certain traits. Whether or not they truly believe this, is not an important factor, it is simply the individual believes it to be true. A study conducted across 16 countries concluded that perceived stigma is most often and strongly associated with mental disorders worldwide (Alonso et al., 2008). Regardless of whether or not this is accurately interpreted, perceived stigma has been linked to negative outcomes by those with the stigmatizing attribute. This includes lower self-esteem, adherence to treatment, social adjustment and quality of life, also well as higher work, role, and social limitations (Alonso et al., 2009;



Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Perlick et al., 2001; Pyne et al., 2004; Sirey et al., 2001).

Across various studies, perceived stigma has been demonstrated to increase social withdrawal and isolation (Perlick et al., 2001), and to discourage individuals from pursuing mental health treatment (Corrigan et al., 2014). Due to the negative effects of perceived stigma, individuals with mental illnesses experiencing stereotypes and discrimination will be unable to experience important life opportunities. Some of these opportunities include getting employment and living independently. These individuals could become hindered by various disabilities or symptoms, such as depression and anxiety, which result from the stigma they experience. Because of this, it could prevent individuals with mental illnesses from being independent or being able to meet the demands of the competitive work environment (Corrigan, 2014).

### **Stigma and Other Barriers to Mental Health and Treatment**

One of the main barriers individuals might face includes financial situations where individuals may not be able to spend money on mental health treatment they need. A common financial situation can include insurance, whether or not the office or facility accepts the insurance or if the individual can handle the deductibles or copay that occur with certain insurances. Due to the concern about the possibility for overusing mental health services, private insurers and Medicare imposed high deductibles and copayments as well as lifetime caps on mental health benefits. Because of the high deductibles, it raised up additional financial barriers when it comes to accessing mental health services, and now those with serious mental illnesses, who exceeded lifetime spending or hospitalization caps, run the risk of bankruptcy (Corrigan, 2014).

There are also racial barriers for certain populations when they try to access or receive treatment for mental health care. It's not something that is since openly but is typically more behind the scenes. However, this situation is called systemic racism, which involves societal hierarchies and institutional structures that create obstacles to resources and opportunities for certain racial and ethnic groups, which is critical to comprehend health disparities (Feagin & Bennefield, 2014). Systemic racism includes the impact of implicit racial bias and discrimination in health care settings on such factors as patient-provider transactions, medical decision-making, health literacy, treatment adherence, unmet health care needs, perceptions of care quality, and overall health outcomes (Benjamins & Whitman, 2014; Mantwill, Monestel-Umaña, & Schulz, 2015; Hall et al., 2015).

Another barrier is having a limited availability of mental health education and awareness. This can prevent individuals to not fully understand their own situation, or the person's support system could not fully understand the impact the individual's mental illness has on them. Sometimes not understanding what someone is going through can indirectly cause harm to that individual. It's not always intentional however, it could also be a toxic situation where the people around that individual don't believe in mental health or receiving help for it. In this situation, perceived stigma can impact individuals from seeking care when it leads to label avoidance; people will attempt to escape from the loss of opportunity that comes with stigmatizing labels, by deciding to not visit clinics or interacting with mental health providers with whom the prejudice is associated with (Corrigan, 2004). From an online interview, Patrick Corrigan, states that many people don't receive care from a mental health professional due to the labels that come with having a mental illness. Corrigan mentions that "up to 40% of people will not seek out care" and that is due to the stigma individuals face (Speaking of Psychology, 2022).

Within the past few years there has been a rise in mental illness, or at least it has become a more discussed topic in the news and through social media. Due to this “sudden” amount of mental health discussion, older generations are putting pressure on those who suffer from mental illnesses because they believe they are a weakened group of people. This is a potential barrier of social stigma on mental health treatments and conditions. In which many find it hard to believe that so many younger generations are impacted by mental illnesses. Some might even believe those with mental illnesses to be faking it for attention or to get out of the things they must do in life. A barrier that relates to this topic, is family-perceived stigma, where family members who have had negative experiences with mental health providers (Lefley, 1989), having the accessibility to social supports within the family (Mitchell, 1989) along with cultural beliefs and values, may unfortunately lead family members to discourage seeking help. In some situations, it’s possible the family is embarrassed by mental illness and keep any experiences with it a secret. It’s also possible for the family members to experience distress due to the stigma which not only causes the relationship to deteriorate, but also hinders the individual’s ability to cope. This can cause the individual to become alienated from the family and will end up becoming a barrier preventing them from seeking help.

Even if they had a professional nearby it may not be what the individual needs, and with a limited financial situation or possibly living in a small town then there may not be many connections that a professional has to offer them. Thankfully we have online services, and it makes finding a mental health professional a little easier. You would however need to be connected to others by word of mouth or have access to internet and have the knowledge of knowing where to look. Having these barriers will prevent individuals from ever getting help, where they will have to go through life feeling the way they do. They will not be able to receive

professional help without some kind of interference in another person's goodwill, having extra money to spend, a new health professional coming to work in their area or attempting to get over the fear of asking for help. So, these situations are essentially out of the individual's control and are not likely to occur.

### **Stigma and Depression and Anxiety Symptoms**

This study specifically examined perceived and internalized stigma in relation to symptoms of depression and anxiety in college students. Depression can also be known as major depressive disorder or clinical depression and it's one of the most common mental disorders in the U.S. (American Psychological Association, 2023). Individuals that suffer from this condition may have trouble doing the normal daily activities and might believe life isn't worth living. Since depression is a mood disorder, it produces the persistent feeling of sadness and a loss of interest. It affects how a person might feel, think, and behave. It can also lead to a variety of emotional and physical issues if left untreated. It is caused by a combination of genetic family history, psychological and social situations and environmental factors while growing up. With a family history of depression and those with serious chronic diseases, like cancer or a heart disease have a higher risk of depression. It can also occur after a major life change, a traumatic experience, and feelings of stress can cause an episode of depression. Although it's also possible for an episode of depression happen without an obvious external cause (American Psychology Association, 2023).

Believing that people with mental illness are dangerous can lead to fear, as well as causing employers to avoid hiring them, or for their primary care providers to offer below-standard medical care (Corrigan, 2005). Although shifting the populations attitudes towards

mental health is a worthy goal, which advocates that attention should be directed on discriminatory behaviors, the overall actions of others prevent the idea of independent living goals related to work, education, and other related areas. (Corrigan, 2014).

Generalized Anxiety disorder generally involves a constant feeling of anxiety or dread, which can interfere with an individual's daily life; unlike occasionally worrying about or experiencing anxiety due to stressful life events, an individual would instead experience anxiety for months or even years (NIH, 2022). Anxiety is the mind and body's reaction towards a stressful, dangerous or an unfamiliar situation, and it's the feeling of uneasiness or dread a person experience before a significant event (Jovanovic, 2023). There are different types of anxiety disorders which are characterized by an emotional response to a perceived or real threat. These disorders can have negative behavioral and emotional consequences. A person's anxiety disorder may be a specific phobia and the fear is prompted by the presence or anticipation of the situation (Porrey, 2023).

According to the National Institute of Mental Health (2022), all human beings experience anxiety at some point in their life. However, those with anxiety disorders experience more frequent and intense worry. Sometimes it could even lead to a sudden attack due to strong feelings of worry or fear which cause a panic attack. Anxiety can become a hindrance to a person's everyday life and could perhaps prevent someone from doing normal activities without fear. Similar to depression, generalized anxiety disorders can be passed down through family genetics. Several parts of the brain and biological processes play a key role in fear and anxiety. Researchers have also found that external causes like traumatic events or being in a stressful environment can put you at a higher risk for developing generalized anxiety disorder (NIMH, 2022). It's also possible for individuals with anxiety to avoid situations or places to prevent

feeling anxious. Some social effects of depression include substance abuse or more frequent use, social isolation, and decreased performance in work and school. If it starts to become severe or lasts longer than the stressful situation, then the individual should talk with a mental health professional and let them know about their symptoms (Porrey, 2023).

### **Social Support as a Buffer for Mental Health**

There are many benefits to having a support system, which includes a higher level of well-being, better coping skills and a longer healthier life. Having that social support can improve a person's self-esteem and helps them cope with their stress levels. Social support can help individuals cope with traumatic experiences (Lee, 2017). Previous research shows that a support system can reduce depression and anxiety, as well as stress. Cohen (2004) explicitly defines social support as “a social network’s provision of psychological and material resources intended to benefit an individual’s ability to cope with stress” (p. 676), while “social connectedness is beneficial irrespective of whether one is under stress” (p. 678). In Thoits’ (1986b) research, she argued that social support can work through the provision of active coping assistance, which can include helping the distressed person to see the situation in a different light. They might also suggest different ways to solve their problems, intervene directly in the situation, encourage them to express their feelings and provide them with distractions from the problem. Coping assistance strategies are stress buffers because—when successful—they quite literally lessen situational demands and/or the person’s emotional reactions to those demands, reducing the physical and psychological consequences of the stressor directly (Thoits 1986b).

For example, having social support, or the sense that one is cared for and valued by close others, might play a role in Black women’s experiences of gendered racism and depression;

depression may be lessened for Black women who, when experiencing a stressful gendered racist event use their social support networks or feel they have a stronger social support network to turn to (Jones, 2022). By being connected to others there's a sense of belonging, which implies acceptance and inclusion by the other members in their groups. With this acceptance comes a belief that one "belongs to a network of communication and mutual obligation" (Cobb, 1976), which ultimately guarantees that the group will meet their needs. Then your significant others' emotional support and instrumental coping assistance should sustain the individual's sense of mattering, self-esteem, and belonging, which in turn should reduce his or her physiological arousal and emotional distress. Their instrumental support can also lessen the burdens or demands of the problematic situation directly, decreasing the degree of perceived threat and thus the stressor's physiological and emotional impacts (Thoits, 2011).

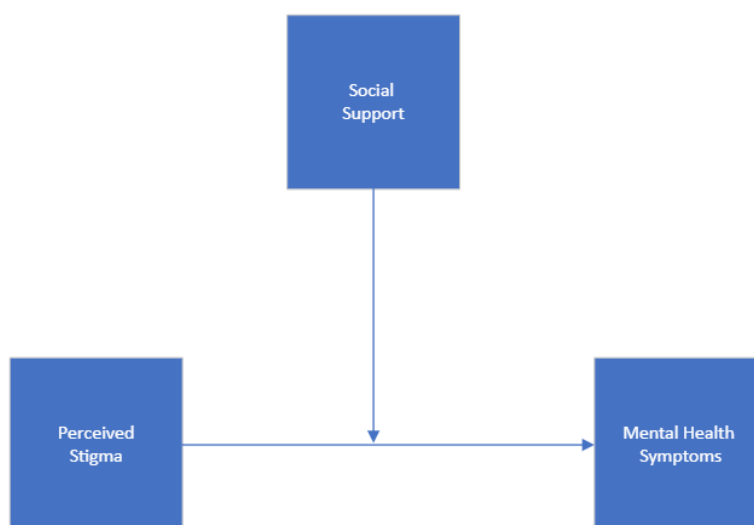
Even if an individual doesn't feel like they have someone to talk to or don't feel comfortable talking to a family member, then there are support groups where people who experience similar situations or symptoms can gather together and share their experiences. Some people with anxiety disorders might benefit from joining a self-help or support group and sharing their problems and achievements with others. Support groups are typically available both online and in-person (NIMH, 2022).

### **The Present Study**

Considering the links between perceived stigma, mental illness, and social support, this honors thesis examined the potential moderating role of social support in the lives of college students experiencing depression or anxiety. Specifically, I hypothesized that individuals with mental illness who have access to more social support would be protected in the face of

perceived stigma – such that perceived stigma would be less strongly related to symptoms of mental illness. I tested the hypothesis that social support would moderate the relation between perceived stigma and mental health symptoms. Specifically, it was predicted that high levels of social support would buffer individuals from the negative effects of perceived stigma on mental health symptoms. Figure 1 depicts the proposed moderated role of social support in differentiating the impact of perceived stigma on mental health symptoms.

**Figure 1** *The Moderating Role of Social Support*



## Method

### Sample

Participants were recruited through word-of-mouth, emails, flyers and posting information on social media platforms. Participants included 93 individuals who participated in an online survey, out of the 93 only 52 participants had fully completed the survey and passed my bot test questions. Participants ranged in age from 18-29 years old, with a mean age of 22.54 (SD=



2.608). With 65.4% of participants identifying as female at birth and 21.2% identifying as male at birth. The participants gender identity followed this trend with the majority being 55.8% identifying as a woman, 38.5% identify as a man, 3.8% identify as nonbinary, and 1.9% identify as unsure. The majority of the participants were heterosexual (50%) and white (86.5%). See Table 1 for the full descriptives of demographic characteristics of the sample.

**Table 1**

*Participant Demographic Characteristics (N = 52)*

	<i>Range</i>	<i>Mean (SD)</i>
Age	18-29	22.54 (2.61)
	<i>n</i>	<i>%</i>
Education		
Some high school	7	13.5%
High school diploma or GED	12	23.1%
Some college without degree	14	26.9%
Associate degree	7	13.5%
4-year college degree	7	13.5%
Some Graduate school without degree	2	3.8%
Master's degree	3	5.8%
Advanced Graduate school degree	0	0%
Race/ Ethnicity (check all that apply)		
Alaskan/ Native American	2	3.8%
African American/Black	6	11.5%
Asian	1	1.9%
Caucasian/White	45	86.5%
Hispanic/Latino/Latina/Latinx	2	3.8%
Middle Eastern/North African	0	0%
Other	0	0%
Gender Identity		
Man	20	38.5%
Woman	29	55.8%
Genderqueer	0	0%
Nonbinary	2	3.8%

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Another not listed	7	13.5%
Do not know	1	1.9%
Prefer not to answer	0	0%
<b>Pronouns</b>		
She/ her/ hers	30	57.7%
They/ them/ theirs	11	21.2%
He/ him/ his	11	21.2%
Other	2	3.8%
<b>Sex Assigned at Birth</b>		
Male	11	21.2%
Female	34	65.4%
Intersex	0	0%
<b>Sexual Orientation</b>		
Straight	26	50%
Lesbian	4	7.7%
Gay	2	3.8%
Bisexual	6	11.5%
Pansexual	2	3.8%
Asexual	3	5.8%
Questioning	0	0%
Queer	2	3.8%
Other	7	13.5%
Do not know	0	0%
<b>Religion</b>		
Christian	27	51.9%
Catholic	3	5.8%
Muslim	3	5.8%
Jewish	1	1.9%
Hindu	1	1.9%
Other	17	32.7%
<b>Relationship Status (check all that apply)</b>		
Single	29	55.8%
Committed Relationship	15	28.8%
Cohabiting	10	19.2%
Engaged	2	3.8%
Married	2	3.8%
Separated	0	0%
Divorced	0	0%
Widowed	0	0%
<b>Employment Status</b>		

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Full-time	21	40.4%
Part-time	2	3.8%
Part-time work-Full time student	18	34.6%
Temporary/ Occasional work	2	3.8%
Permanently or temp. disabled not working	1	1.9%
Permanently or temp. disabled but working	2	3.8%
Unemployed- Student	5	9.6%
Unemployed- Other	1	1.9%

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## Procedure

For my collection of data, I used an online survey I created from preexisting questionnaires. I started the survey with demographic questions, then I wanted to know if my participants had ever been diagnosed and asked questions related to their mental health diagnosis. I did not require an official diagnosis since the topic of stigma could have barriers which limited or prevented the participants from getting professionally diagnosed. I then used preexisting questionnaires, which were adapted to fit my topic.

## Measures

The demographics information collected included age, ethnicity, religion, gender identity, sexual orientation, relationship status, the highest grade completed, employment status. Additionally, I incorporated questions about mental health diagnoses, including information about having an official diagnosis, discussion of symptoms with a professional, family history of mental illness, and if they are currently taking psychiatric medications.

**Perceived Stigma.** The Griffiths (2008) Perceived Stigma Scale is a nine-item scale designed to measure the participants' perception about the attitudes of others towards depression. A sample item includes, "Most people believe that depression is a sign of personal weakness". Each of the

items from this scale can be scored from 0 (strongly disagree) to 4 (strongly agree). The items were summed to create a total score. This scale was found to have a reliability coefficient of .77.

**Internalized Stigma.** The Dinos (2004) Stigma Scale contains 28 items to score and is designed to measure detailed accounts of the individuals' feelings and worries about prejudice and discrimination. A sample includes, "I am angry with the way people have reacted to my mental health problems." Each of the items can be scored from 0 (strongly disagree) to 4 (strongly agree). The items were summed to create a total score. This scale has a reliability coefficient of .79.

**Social Support Scale.** The Zimet (1988) Multidimensional Scale of Perceived Social Support (MSPSS) scale contains 12 items designed to measure the perceptions from the support of three sources: family, friends and significant other. Each of the items can be scored from 1 (very strongly agree) to 7 (very strongly disagree). A higher score indicates greater social support perceived by an individual; the total possible score ranges from 12 to 84. The items were summed to create a total score. This scale has a reliability coefficient of .94.

**Depressive Symptoms.** The Kroenke (2001) PHQ-9 scale contains 9 items designed to be a brief depression severity measure. Each of the items can be scored from 0 (not at all) to 3 (nearly everyday). A higher score indicates severe depression symptoms; the total possible score ranges from 1 to 27. The items were scored to create a total average score. This scale has a reliability coefficient of .76.

**Anxiety Symptoms.** The Spitzer (2006) GAD-7 scale contains 7 items designed to be a brief measure assessing generalized anxiety disorder. Each of the items can be scored from 0 (not at all) to 3 (nearly everyday). A higher score indicates severe anxiety symptoms; the total possible

score ranges from 0 to 21. The items were scored to create a total average score. This scale has a reliability coefficient of .82.

### **Analysis Plan**

Preliminary analyses were conducted to examine the descriptive statistics for all study variables. Bivariate correlations were also conducted on study variables. Main study analysis consisted of a moderated regression analysis to test hypotheses. In order to conduct the main analysis, PROCESS was used (model 1) with perceived stigma as a predictor, social support as a moderator, and mental health symptoms (anxiety and depressive) as the outcome. Any significant interactions will be decomposed with 1 SD above and below the mean.

## **Results**

### **Preliminary Analyses**

As shown in Table 2, descriptives statistics and correlation were conducted on the main study variables (perceived stigma, internalized stigma, mental health symptoms, and social support). Results showed that the means were located at approximately the midpoint of the scale. As well, the correlations were in the direction expected by the hypotheses.

### **Table 2.**

*Descriptive Statistics and Correlations of Main Study Variables (N=52)*

	1	2	3	4	5
1. Perceived Stigma		.628*	.272	.301*	.350*
2. Internalized Stigma			.058	.407*	.303*

3. Social Support				.005	.250
4. Depression Symptoms					.586*
5. Anxiety Symptoms					
Mean	29.0	52.46	59.85	2.38	2.38
Standard Deviation	5.76	12.28	15.28	.568	.694
Minimum	18.00	25.00	33.00	1.22	0.29
Maximum	40.00	78.00	83.00	3.67	3.00

Note. \* $p < .05$ .

### Moderated Regression Analyses

Results of moderated regression examined perceived stigma, social support, and depressive symptoms revealed a non-significant interaction between perceived stigma and social support in predicting mental health symptoms. However, significant main effects revealed that perceived stigma was significantly and positively related to mental health symptoms ( $b = .031$ ,  $SE = .014$ ,  $p = .0256$ ). However, social support was not significantly related to depressive symptoms. The model accounted for .15% of the variance in mental health symptoms.

Results of moderated regression examining internalized stigma, social support, and depressive symptoms revealed a non-significant interaction between internalized stigma and social support in predicting depressive symptoms. However, one significant main effect was shown. Specifically, internalized stigma was significantly and positively related to depressive symptoms ( $b = .183$ ,  $SE = .006$ ,  $p = .0033$ ). However, social support was not significantly related to mental health symptoms. The model accounted for .22% of the variance in depressive symptoms.

Results of moderated regression examined perceived stigma, social support, and anxiety symptoms revealed a non-significant interaction between perceived stigma and social support in predicting anxiety symptoms. However, significant main effects revealed that perceived stigma was significantly and positively related to anxiety symptoms ( $b = .036$ ,  $SE = .017$ ,  $p = .0322$ ). However, social support was not significantly related to anxiety symptoms. The model accounted for .17% of the variance in anxiety symptoms.

Results of moderated regression examining internalized stigma, social support, and anxiety symptoms revealed a significant interaction between internalized stigma and social support in predicting anxiety symptoms. Decomposition analysis based on 1SD above and below the mean revealed that at low and average levels of social support, internalized stigma was associated with greater anxiety symptoms; however, at high levels of social support, it was not. Additionally, internalized stigma was significantly and positively related to anxiety symptoms ( $b = .016$ ,  $SE = .007$ ,  $p = .0371$ ). However, social support was not significantly related to anxiety symptoms. The model accounted for .21% of the variance in anxiety symptoms.

## **Discussion**

### **Review of Study Goal**

The goal for this study was to test whether social support could moderate the relationship between two types of stigma (perceived and internalized) and increased mental health symptoms. Given the theoretical and empirical evidence of social support as a resource in people's lives, it was predicted that those with higher social support would be protected from the negative effects of stigma on mental health. However, main findings revealed mostly non-significant interactions, indicating that support did not moderate the negative impact of either perceived or internalized

forms of stigma on anxiety and depressive mental health symptoms. However, social support did moderate the relation between internalized stigma and anxiety symptoms. Further, results consistently showed negative impacts of both forms of stigma on increased mental health symptoms.

### **Linking Findings to Prior Literature**

Main results of this study showed the high levels of social support can buffer individuals from the negative impact of internalizing stigma on anxiety symptoms. This finding is aligned with the hypothesized moderation model. This main finding makes sense given the prior theoretical and empirical research showing the benefits of social support especially in the context of stress and trauma (Cohen, 2004).

The lack of significant results for social support as a moderator for the other form of stigma and outcomes variable is surprising given the prior theoretical and empirical evidence that support can mitigate the harmful effects of stress (Lee, 2017). One likely explanation for the lack of significant findings is the small sample size and therefore low statistical power to detect the effects. However, it also may be that stigma has such a strong influence on mental health outcomes that social support does not counteract this influence of stigma.

In fact, both perceived and internalized stigma were strongly related to increased anxiety and depressive mental health symptoms and explained much of the variance instead of social support. In the model with internalized stigma, the main effect of social support does not even reach significance, meaning that internalizing stigma such that one feels shameful or embarrassed about mental illness and others' views of mental illness accounts for all of the 65% of the variance in mental health symptoms.



## **Implications**

Study findings imply that perceived and internalized stigma are linked with greater depressive and anxiety symptoms even when individuals had a strong social support system, as evidenced by the lack of significant interactions three of the four moderated analyses, combined with a strong main effect of stigma. If stigma is in fact having such a strong impact on mental health symptoms, these findings have implications for mental health care providers working with clients experiencing this stigma. Presumably, stigma must be reduced in order to improve mental health symptoms. While internalized stigma can be directly addressed in the context of mental health treatment, large-scale efforts to reduce stigma on a population level makes sense to reduce perceived stigma about how people in general feel and think about those with mental illness.

Moreover, it appears that high levels of social support can mitigate the harmful effects of internalizing stigma on anxiety symptoms specifically. Thus, intervention work could promote strengthening social support networks. Mental health providers might emphasize the importance of these support networks as part of the treatment process. For depressive symptoms, some individuals experience social isolation and may not have an opportunity to connect with their support systems. Therefore, individuals that face depression symptoms won't be positively influenced by their social support due to feelings of perceived stigma, which can result from isolating themselves (Perlick et al., 2001).

## **Limitations**

This study was unsuccessful in finding social support as a buffer of individuals perceived and internalized stigma. The main limitation that may explain this result is this study's small sample size. Future research should allow for greater length of time for advertising and data

collection. However, it's also possible that outreach to potential participants could be broader to have a greater reach into the college student population online.

Future research will need to include a bigger sample size to determine if these findings are accurate or if social support does buffer the effects of stigma. More research on the connection between having social support and mental health symptoms will benefit those who suffer from mental illnesses. If there was more research on this topic, then it could assist mental health professionals and support systems understand how they can help individuals create connections to prevent further effects of stigma. Regardless of social support, however, stigma should be reduced or eliminated. With future research and intervention both perceived and internalized stigma could be reduced.

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